EISSN 2148-5607 **VOLUME 30 SUPPLEMENT 3 SEPTEMBER 2019** turkjgastroenterol.org

# TURKISH JOURNAL OF Gastroenterology

OFFICIAL JOURNAL OF THE TURKISH SOCIETY OF GASTROENTEROLOGY

→ INDEXED IN SCIENCE CITATION INDEX EXPANDED, AND PUBMED/MEDLINE

TURKISH JOURNAL OF
Gastroenterology
OFFICIAL JOURNAL OF THE TURKISH SOCIETY OF GASTROENTEROLOGY


### Editor in Chief

*Osman Cavit Özdoğan*
*Department of Gastroenterology, Marmara University School of Medicine, İstanbul, Turkey*

### Section Editors

*Ayhan Hilmi Çekin*
*Department of Gastroenterology, Health Sciences University Antalya Training and Research Hospital, Antalya, Turkey*

*Ramazan İdilman*
*Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*

*Tarkan Karakan*
*Department of Gastroenterology, Gazi University School of Medicine, Ankara, Turkey*

*İlter Özer*
*Department of General Surgery, Eskişehir Osmangazi University School of Medicine, Eskişehir, Turkey*

*Yeşim Öztürk*
*Department of Pediatric Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

*Murat Saruç*
*Department of Internal Medicine, Division of Gastroenterology, Acıbadem University School of Medicine, İstanbul, Turkey*

*Berrak Yeğen*
*Department of Physiology, Marmara University School of Medicine, İstanbul, Turkey*

### Associate Editors

*Mesut Akarsu*
*Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

*Filiz Akyüz*
*Department of Gastroenterology, İstanbul University School of Medicine, İstanbul, Turkey*

*Canan Alkım*
*Clinic of Gastroenterology, Şişli Etfal Training and Research Hospital, İstanbul, Turkey*

*Nural Bekiroğlu*
*Department of Biostatistics, Marmara University School of Medicine, İstanbul, Turkey*

*Ayhan Bozkurt*
*Department of Physiology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*

*Mehmet Bülbül*
*Department of Physiology, Akdeniz University School of Medicine, Antalya, Turkey*

*Ülkü Dağlı*
*Department of Gastroenterology, Başkent University School of Medicine, Ankara, İstanbul, Turkey*

*Volkan Öter*
*Department of General Surgery, Sakarya University School of Medicine, Sakarya, Turkey*

*Selçuk Dişibeyaz*
*Department of Gastroenterology, Eskişehir Osmangazi University School of Medicine, Eskişehir Turkey*

*Deniz Güney Duman*
*Department of Gastroenterology, Marmara University School of Medicine, İstanbul, Turkey*

*Fulya Günşar*
*Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*

*Aydın Şeref Köksal*
*Department of Gastroenterology, Sakarya University School of Medicine, Sakarya, Turkey*

*Dilek Oğuz*
*Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*

*Sedef Özdal Kuran*
*Department of Gastroenterology, Çukurova University School of Medicine, Balçalı Hospital, Adana, Turkey*

*Müjde Soytürk*
*Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

*Fatih Tekin*
*Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*

*İlker Turan*
*Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*

*Gökhan Tümgör*
*Department of Pediatric, Division of Pediatric Gastroenterology, Çukurova University School of Medicine, Adana, Turkey*

*Ayşen Uncuoğlu*
*Department of Pediatric, Division of Pediatric Gastroenterology, Kocaeli University School of Medicine, Kocaeli, Turkey*

*Yücel Üstündağ*
*Department of Gastroenterology, Bülent Ecevit University School of Medicine, Zonguldak, Turkey*

*Müjdat Zeybel*
*Department of Gastroenterology, Koç University Hospital, İstanbul, Turkey*

### International Associate Editor

*Ali Canbay*
*Department of Gastroenterology, Hepatology, and Infectious Diseases, Magdeburg University Hospital, Magdeburg, Germany*

*Ahmet Gürakar*
*Department of Gastroenterology and Hepatology, Johns Hopkins University School of Medicine, Baltimore, USA*

### Production Coordinator

*Cem Aygün*
*Department of Gastroenterology, Acıbadem Hospital, İstanbul, Turkey*


AVES

**Publisher**
İbrahim KARA

**Publication Director**
Ali ŞAHİN

**Editorial Development**
Gizem KAYAN

**Finance and Administration**
Zeynep YAKIŞIRER ÜREN

**Deputy Publication Director**
Gökhan ÇİMEN

**Publication Coordinators**
Betül ÇİMEN
Özlem ÇAKMAK
Okan AYDOĞAN
İrem DELİÇAY
Arzu YILDIRIM

**Project Coordinators**
Doğan ORUÇ
Sİnem KOZ

**Graphics Department**
Ünal ÖZER
Deniz DURAN
Beyzanur KARABULUT

Address: Büyükdere Cad. No: 105/9 34394 Mecidiyeköy, Şişli, İstanbul-Turkey
Phone: +90 212 217 17 00
Fax: +90 212 217 22 92
E-mail: info@avesyayincilik.com

# ORAL PRESENTATIONS

 DOI: 10.5152/tjg.2019.050919

***OP-01***

## *Efficacy and safety of extracorporeal shock-waves lithotripsy ın biliary and pancreatic stones: A 12-years experience*

**Francesco Decembrino[1], Simone Grillo[1], Lorenzo Camellini[2], Francesco Azzolini[3], Cristiana Tioli[1], Veronica Iori[1], Giuliana Sereni[1], Maurizio Cavina[1], Paolo Cecinato[1], Francesca Parmeggiani[1], Romano Sassatelli[1]**

*[1]IRCCS-Ausl Reggio Emilia, Reggio, Italy*
*[2]ASL 5-la Spezia, Spezia, Italy*
*[3]Ospedale Vita Salute San Raffaele, Milano, Italy*

***Background/Aims:*** Biliary and pancreatic stones are often removed endoscopically by ERCP in case of jaudice, cholangitis, chronic pancreatitis. When it is impossibile because of their dimension or challenging position, extracorporeal shock-waves lithotripsy is an option for their treatment since some years, but it isn't widespread in gastroenterology departments.

***Materials and Methods:*** We aimed to assess efficacy and safety of extracorporeal shock wave lithotripsy (ESWL) in patients with large biliary and pancreatic stones. From January 2007 to December 2018 in our center we performed ESWL in 106 patients, 57 males and 49 females, (median age 72.8 years, range 35-98 years) for refractory bile duct (95 patients) and pancreatic (11 patients) stones refractory to ERCP, even associated to endoscopic mechanical lithotripsy. The 82.1% of patients underwent a single session of ESWL, the others 2 or more sessions. The 50%, 13.5% and 36.5% of patients had respectively 1, 2 and 3 or more stones. The median diameter of the stones was 25.3 mm (range 10-50 mm) and 18.9% of them were located upstream of a stricture. As for biliary stones, 80% were extrahepatic (including localization in hepatic and cystic duct), 16.8% intrahepatic, 3.2% both.

***Results:*** Overall the fragmentation of the stones was obtained in 83 out of 106 patients (78.3%), with a complete clearance in 76.4%. Considering only biliary stones, the clearance rate (CR) increased to 80%, with a significant difference (p=0.03) between patients with 1 or 2 stones (CR=88%) and those with 3 or more stones (CR=69%). Most patients with 1 or 2 stones (92%) underwent ESWL once, while a single session was performed only in the 73.5% of patients with 3 or more stones (p=0.018). The 89.5% of the complete clearance was obtained with a single session of ESWL, the remainig 10.5% needed 2 or more sessions. As for safety, intraprocedural hemobilia was reported only for 5 out of 106.

***Conclusion:*** Extracorporeal shock-waves lithotripsy is an effective and safe technique to remove biliary and pancreatic stones. The presence of a single stone in the biliary tree can be predictive of a successful ESWL in a single session.

***Keywords:*** Large biliary stones, chronic pancreatitis, ESWL, complete clearance

---

***OP-03***

## *Endoscopic, muscle cell-derived progenitor cell implantation into lower esophagus sphincter. A new experimental invasive model in the treatment of gastro-esophageal reflux disease*

**Murat Kantarcıoğlu[1], Hakan Sarlak[4], Hakan Demirci[5], Erdal Karaöz[2], Ayşe Güldem Kılcıler[3], Sait Bağcı[6]**

*[1]Lösante Hospital, Ankara, Turkey*
*[2]Liv Hospital, İstanbul, Turkey*
*[3]Department of Gastroenterology, Uşak University Hospital, Uşak, Turkey*
*[4]Department of Gastroenterology, Gülhane Hospital, Ankara, Turkey*
*[5]Medical Park Hospital, İstanbul, Turkey*
*[6]Ankara Surgery Center, Ankara, Turkey*

***Background/Aims:*** Gastroesophageal reflux disease (GERD) is a worldwide common and chronic health problem. In addition to drugs, surgical or endoluminal antireflux procedures are treatment options for selected patients. The 2 main endoluminal GERD

therapies are the Stretta procedure and transoral incisionless fundoplication. Progenitor stromal cells provide tissue regeneration and viability in many human organs. Human endometrial tissue progenitor stem cells (HEPSCs) have high ability to differentiate into functional muscle tissue cells. In this study, we aimed to implant HEPSCs into the lower esophageal sphincter (LES) of the rabbits, observe their ability to differentiate to functional muscle cells and evaluate sphincter pressure values.

***Materials and Methods:*** Green fluorescent protein (GFP) transfected HEPSCs were obtained from Kocaeli University Stem Cell Laboratory. Eight months old, 1500 gm. weighing, twenty New Zealand rabbits were used. Invasive procedures were performed using the Olympus BF-P30 bronchoscope 21 G TBNA sclerotherapy catheter. Ten rabbits have implanted 1 x $10^6$ stem cells each (Group 1), and serum physiological injection was performed to the other ten (Group 2). LES pressures were measured using MMS Ver 8.11 (BV. Netherlands) device and 12 fr (3.9 mm) radial water perfusion manometry catheter with 8 channels before and 3 weeks after implantation. Animals were sacrificed in the third week of the study. LES were dissected. Histopathological examination was performed. Muscle differentiation markers on transplanted GFP-labeled cells were investigated.

***Results:*** Three rabbits died due to complications. Histopathological examination revealed GFP expressing implanted cells in the LES tissues of group 1. These cells expressed MYO D protein and MYH2 factor which indicates mature muscle cell differentiation. In the stem cell implanted group, lower esophageal sphincter pressure values were significantly increased compared to the controls.

***Conclusion:*** Endoluminal implantation of HEPSCs result in differentiation into mature muscle cells and leads to an increase in sphincter pressure. In the light of our findings, endoluminal autologous, muscle-derived progenitor-stem cell implantation seems to be a new endoscopic invasive model for the treatment of GERD.

***Keywords:*** Gerd, stem cell implantation, endoluminal

---

***OP-04***

## *The role of esophageal epithelial integrity on proton pump inhibitor response in patients with gastroesophageal reflux disease*

**Serhat Bor, Pelin Ergün, Sezgi Kıpcak**

*Department of Gastroenterology, Ege Reflux Study Group, Ege University School of Medicine, İzmir, Turkey*

***Background/Aims:*** 20-30% of patients with gastroesophageal reflux disease (GERD) do not adequately respond to proton pump inhibitors (PPI). It is not known whether esophageal epithelial integrity is one of the determinant of the response. We evaluated the relationship between PPI response rate and esophageal epithelial integrity in GERD patients.

***Materials and Methods:*** 24 healthy controls (HC) 16 functional heartburn, 11 reflux hypersensitivity, 35 true non-erosive reflux (NERD), 48 erosive GERD A-B (ERD AB) and 12 erosive GERD C-D (ERD CD) in total 146 subjects were included. GERD and QoL questionnaires, high-resolution esophageal manometry, off-PPI intra-esophageal 24-h impedance-pH monitoring, upper gastrointestinal endoscopy with distal esophageal biopsies performed in all patients. Esophageal epithelial resistance (TEER) and tissue permeability via fluorescein diffusion within 2 hours were measured by mini-Ussing chamber system. Patients were analysed according to phenotypes and PPI responses;>80% very good, 50-79% good,<50% no response.

***Results:*** TEER of all GERD patients were significantly lower than the healthy controls. TEER of all GERD groups were decreased compared to HC however only ERD groups were significant. The tissue permeability of all phenotypes and functional heartburn was significantly higher than controls. According to PPI response, TEER was significantly lower and tissue permeability was significantly higher than the controls. Tissue permeability in>80% responder group was significantly lower compared to "good" and "no response" groups. While TEER results of "17-34" age group were higher but insignificant than older patients (>55 yo) (p=0.072), tissue permeability was significantly lower. In addition, the tissue permeability of patients ≤50 yo healthy controls was significantly lower than older healthy controls (Table).

***Conclusion:*** Tissue resistance was lower and tissue permeability higher in all GERD patients compared to healthy controls implicates that tissue integrity decreases in GERD. Although the PPI response criteria in the literature have been determined in "50% and above" range; this rate is not adequate at the clinical level. We found that a higher and clinically more significant level which is>80% range was significantly related with a better epithelial integrity. This finding implicates that lower ion (H+) permeability might be related with higher PPI response. The tissue permeability of older healthy controls was higher than younger subjects implicates the importance of aging by itself.

***Keywords:*** PPI, gastroesophageal reflux disease, epithelial resistance, tissue permeability

| | ***TEER (ohm)*** | ***Permeability (pmols)*** |
|---|---|---|
| Healthy controls | 166.8±46.2 | 36.9±13.5 |
| PPI response ≥80% | 147.0±39.1** | 45.9±23.8* |
| PPI response 50-79% | 136.0±37.6** | 57.6±33.1* ^^ |
| No response<50% | 138.9±51.8** | 60.1±38.9** ^ |
| ERD (all) | 129.3±33.3* | 51.7±30.7 ** |
| ERD A/B | 133.7±34.1* ¥¥ | 46.9±28.1*** |
| ERD C/D | 112.1±37.1* ¥ | 60.1±38.9** |
| NERD | 151.4±48.0 | 57.5±32.9** |
| Reflux hypersensitivity | 153.6±46.5 | 65.4±34.1** |
| Functional heartburn | 159.5±55.1 | 54.5±34.1*** |
| All patients | 141.8±39.4** | 55.0±32.8* |
| GERD patients 17-34 yo | 150.1±39.4 | 50.4±25∞ |
| GERD patients>55 yo | 133.0±51.6 | 67.5±43.2 |

*p≤ 0.001 vs HC, ** p<0.01 vs HC, *** p<0.05 vs HC
¥p≤ 0.01 vs NERD, ¥¥ p<0.05 vs NERD
^p≤ 0.01 vs Very good PPI response, ^^ p≤ 0.05 vs Very good PPI response
∞p<0.05 vs>55 aged

***OP-05***

## *POEM in Prague since 2012: A single center experience with more than 300 POEMs for Achalasia*

**Zuzana Rabekova, Zuzana Vackova, Tomas Hucl, Petr Stirand, Julius Spicak, Eva Kieslichova, Radim Janousek, Jan Martinek**

*Institute for Clinical and Experimental Medicine, Prague, Czechia*

***Background/Aims:*** POEM has already proved excellent mid-term efficacy even when compared with other standard methods for achalasia, but the long-term durability still needs to be confirmed. Nevertheless, the high risk of postPOEM reflux tempers the enthusiasm. The aim of our case series was to assess the long-term clinical outcome and a thorough analysis of postPOEM reflux.

***Materials and Methods:*** A retrospective analysis of prospectively collected data of consecutive patients undergoing POEM at our tertiary center (12/2012-2/2019). All patients were scheduled for follow up at 3, 6, 12M after the procedure and every

year thereafter. Upper GI endoscopy, HRM and 24-hour pH-metry were performed 3M after POEM; endoscopy was then repeated between 24-36M. Main outcomes were treatment success defined as ES<3, recurrence rate and parameters of postPOEM reflux evaluated by 24h pH-metry, presence of reflux esophagitis, reflux symptoms and use of PPIs.

***Results:*** A total of 292 achalatic patients underwent 306 POEMs. Follow-up visits at 3, 12, 24, 36 and 48M were completed in 250, 179, 131, 69 and 28 patients. Treatment success at 3M was achieved in 98% (CI 96-100), at 12M in 95% (92-98), at 24M in 90% (85-95), at 36M in 82% (73-91) and at 48M in 79% (67-91) of patients. A total of 25 patients experienced treatment failure (n=6) or recurrence (n=19). At 3M, reflux esophagitis was observed in 107/251 (42.6%, mostly LA A). Abnormal acid exposure was detected in 93/215 (44.3%) patients. At 24-36M, endoscopy was performed in 84 patients and reflux esophagitis was present in 27 patients (32.1%). PPIs were administered on average to 36.8% of patients at the follow up visits.

***Conclusion:*** POEM successfully amended the spectrum of effective treatment modalities for achalasia with sustained treatment success of 90% at 24M and still favorable 79% at 48M after the procedure. PostPOEM reflux (usually mild, successfully manageable with PPIs) is present in almost 40% of patients, thus remaining a crucial clinical challenge in safety profile of POEM.

***Keywords:*** Peroral endoscopic myotomy, POEM, achalasia, postPOEM esophagitis

---

***OP-06***

## *Diagnostic utility of 13C-urea breath test in dyspeptic patients having negative rapid urease test who are on long term proton pump inhibitor*

**Sukanta Chandra Das[1], Naymul Hasan[2], Birendra Nath Saha[3], Chanchal Kumar Ghosh[4]**

*[1]General Hospital, Narayanganj, Bangladesh*
*[2]Shaheed Ziaur Rahman Medical College, Bangladesh*
*[3]Shaheed Taj Uddin Ahmad Medical College, Bangladesh*
*[4]Bangabandhu Sheikh Mujib Medical University, Bangladesh*

***Background/Aims:*** The most common human infection of upper GIT is *H pylori* which migrates from gastric antrum to the proximal stomach following acid suppression therapy. Due to this redistribution of *H. pylori*,there might be sampling error while taking tissue from stomach for Rapid Urease Test (RUT).The 13C-Urea Breath Test (13C-UBT) is a non-invasive, simple and safe alternative which have minimal chance of this error. In this study,we want to re-evaluate RUT negative dyspeptic patients by doing 13C-UBT.

***Materials and Methods:*** This was a cross sectional study done among 50 patients attended in OPD at General Hospital, Bangladesh who were diagnosed as RUT negative Non Ulcer Dyspepsia according to ROME IV criteria and who were on long term PPI.Then patients were re-evaluated for *H. pylori* status by UBT using film-coated [13C] urea tablets after stopping PPI for 2 weeks. Breath samples were collected at 0 and 30 min after administration of a UBT tablet and values were measured by infrared spectrometry. The chi-squared test was used for testing association between qualitative variables and the 't' test was used for quantitative variables.A value of $p<0.05$ was considered significant.

***Results:*** Mean age of patients of this study was 35.96±13.37.Among them 64% was male and 36% was female.Total 18% of study sample had positive UBT.Those patients who had Gastritis on esophagogastroduodenoscopy showed positive UBT in 55.55% cases and those who had no mucosal abnormality on esophagogastroduodenoscopy showed only 9.75% positive in UBT.This difference is statistically significant (p=0.008).

***Conclusion:*** 13C-UBT can be a reliable alternative to re-evaluate RUT negative dyspeptic patients particularly who are on long term PPI before concluding non HP Gastritis or non HP Dyspepsia.

***Keywords:*** Non ulcer dyspepsia, rapid urease Test, 13C-Urea Breath Test

***OP-07***

## *Prediction of inflammatory bowel diseases by genetic risk score in Asian general populations*

**Shifteh Abedian[1], Sunny H. Wong[2], Suzanne Van Sommeren[4], Atsushi Takahashi[5], Jae Hee Cheon[6], Ajit Sood[7], Homayoon Vahedi[3], Keiko Yamazaki[8], Won Ho Kim[6], Thelma BK[9], Nasser E. Daryani[10], Michiaki Kubo[8], Suk-Kyun Yang[11], Rupa Banerjee[12], Reza Malekzadeh[3], Rinse K. Weersma[4], Siew C. Ng[2], Behrooz Z. Alizadeh [1]**

*[1]Department of Epidemiology, University of Groningen and University Medical Center Groningen, Groningen, Netherlands*
*[2]Department of Medicine and Therapeutics, Institute of Digestive Disease, State Key Laboratory of Digestive Disease, LKS Institute of Health Science, The Chinese University of Hong Kong, Hong Kong*
*[3]Digestive Disease Research Center, Digestive Disease Research Institute, Tehran University of Medical Sciences, Tehran, Iran*
*[4]Department of Gastroenterology and Hepatology, University of Groningen and University Medical Center Groningen, Groningen, The Netherlands*
*[5]Laboratory for Statistical Analysis, Riken, Yokohama, Japan*
*[6]Department of Internal Medicine and Institute of Gastroenterology, Yonsei University College of Medicine, Seoul, Korea*
*[7]Department of Medicine, Dayanand Medical College and Hospital, Ludhiana, India*
*[8]Division of Genomic Epidemiology and Clinical Trials, Clinical Trials Research Center, Nihon University School of Medicine, Tokyo, Japan*
*[9]Department of Genetics, University of Delhi South Campus, New Delhi, India*
*[10]Department of Gastroenterology, Emam Hospital, Tehran, Iran*
*[11]Department of Gastroenterology and Hepatology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea*
*[12]Department of Gastroenterology, Asian Institute of Gastroenterology, Hyderabad, India*

***Background/Aims:*** The clinical implication of genetic findings in Inflammatory Bowel Disease (IBD) is matter of persistent debate especially in Asian population where the prevalence of IBD including Crohns Disease (CD) and Ulcerative Colitis (UC) is rising. We aimed to investigate the predictability of IBD, CD and UC by the means of Genetic Risk Score (GRS) in yet unaffected high risk individuals form East Asia (EA) and Central Asia (CA). We included one of the largest and most accurate collections of Asian population based samples of IBD with genome wide data available to date, based on a prior strong genetic study supplying enrich genetic data to capture IBD probability compared to the Caucasian.

***Materials and Methods:*** This present study included 9,698 subjects, consisting of 2,003 CD, 2,730 UC and 4,965 country, age and gender-matched controls, genotyped on the Immunochip array of three EA (Japan, South-Korea and China) and two CA countries (India and Iran). We generated a multi-locus GRS for each population by combining information from up to 201 known genome wide significant IBD associated variants to summarize the total load of genetic risk for each phenotype. We estimated explained variance and predictability of IBD, CD and UC by GRS. We shuffled the EA data into: training set including two out of the three EA populations to build a model to calculate odds ratio (OR) for each IBD variants, and a test set including the third population for the validation of predictive model built in the training set. For Indian and Iranian populations, we used the previously estimated ORs for Caucasian population, to build GRS and test the predictive model in these two populations (Figure 1).

***Results:*** GRS of IBD could significantly explain up to 4.40% and 4.14% of IBD variance in EA and CA populations but given a prevalence of 0.01% and 0.04% for IBD it yields to a negligible predictive probability up to 8.8x10-4 and 5.52x10-4. GRS of CD and UC could significantly explain CD and UC to a lesser extent compared to IBD given a lower prevalence of CD and UC (Figure 2).

***Conclusion:*** The present study shows that the association of GRS which was built upon combining the effect of genome wide associated risk alleles based on Trans-ethnic analyses are applicable across Asian populations. GRS alone can explain a limited percentage of disease occurrence in Asian general population (<5% of disease susceptibility) and, is unlikely to provide a strong predictive probability of IBD, CD and UC in in the Asian general populations.

***Keywords:*** Inflammatory bowel disease, Crohn's Disease, ulcerative colitis, genetic risk score (GRS), explained disease susceptibility, risk prediction, risk estimate

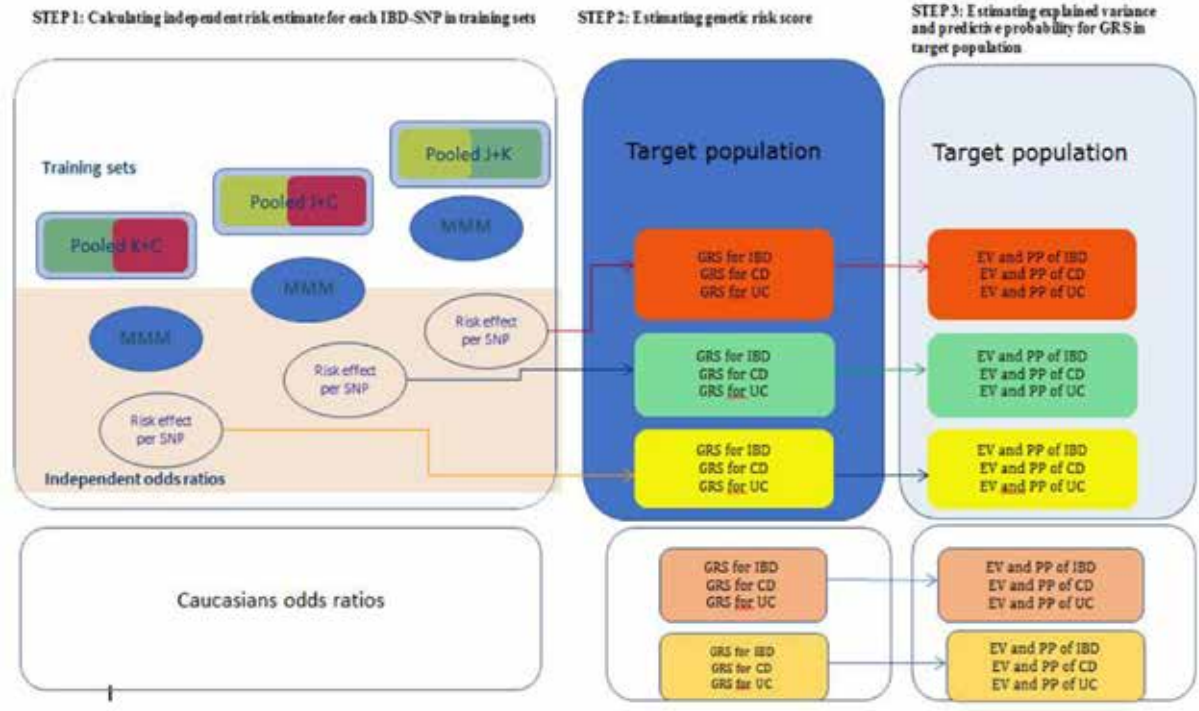



**Figure 1.** Study design

EV: explanied variance, PP: posterior probilities

For EA populations in training set first, we combined Korean and Chinese to calculate independent risk estimate (ORKC) for IBD, CD and UC for each IBD associated SNPs. Next we combined Japanese and Chinese to calculate independent risk estimate (ORIC) per SNPs, and finally, we compined Japanese and Korean to calculate independent risk estimate (ORRK) per SNPs. We estimated independent odds ratios by MMM package for the common IBD associated SNPs in three EA populations, then we calculated GRS, EV and PP for target populations. For Indians and Iranians, we included the risk allele and odds ratios as the same indicated for the Caucasian population obtained form trans ethnic meta-GWAS.

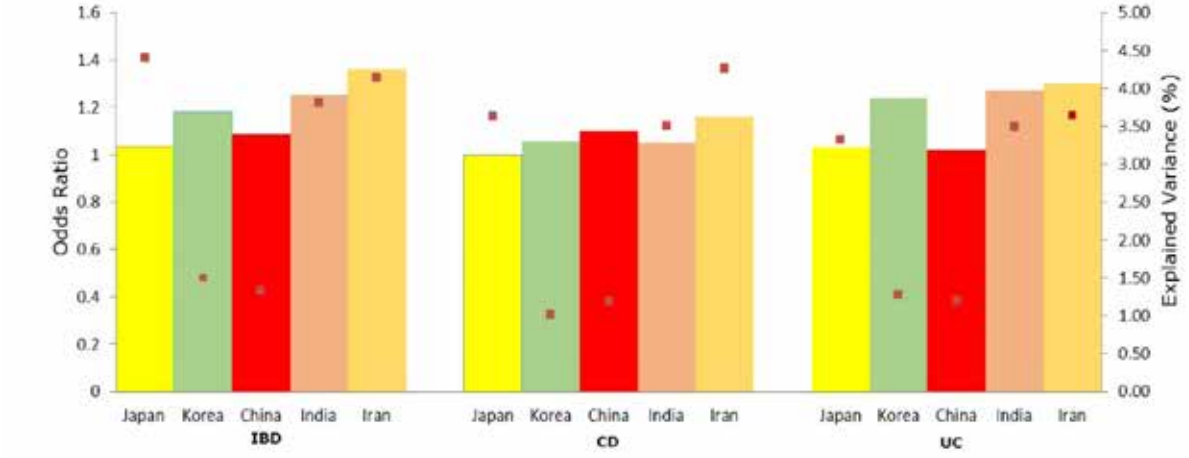



**Figure 2.** Odds ratio and explained variance in target populations per phenotype and per state

***OP-08***

# *Steady-state trough concentrations and their relationship to selected demographic and clinical response measures in etrasimod-treated patients with moderately-to-severely active ulcerative colitis*

**D. Alexander Oh, Caroline A. Lee, Yong Tang, Christopher H. Cabell, John S. Grundy**

*St. David's Medical Center, Texas, USA*

***Background/Aims:*** Etrasimod is a once-daily, oral, selective, sphingosine-1-phosphate receptor modulator in development for immune-mediated inflammatory disorders. We examined etrasimod steady-state plasma trough concentrations ($C_{ss,trough}$) and their relationship to demographics and clinical responses in patients with ulcerative colitis (UC).

***Materials and Methods:*** Etrasimod $C_{ss,trough}$ and clinical responses were evaluated from the randomized, double-blind, parallel-group, 12-week, Phase 2 OASIS study of once-daily etrasimod 1 mg (n=52 [30 males]), 2 mg (n=50 [27 males]), or placebo (n=54 [32 males]) in patients with moderately-to-severely active UC (modified Mayo Clinic Score [mMCS] 4–9, endoscopic subscore ≥2, rectal bleeding subscore ≥1). We measured etrasimod $C_{ss,trough}$ in pre-dose blood samples drawn at weeks 1, 2, 4, 8, and 12, averaged across weeks ($C_{ss,avg\ trough}$), and summarized by treatment and gender. We explored relationships of dose-normalized $C_{ss,avg\ trough}$ values with patient age and total body weight (TBW) using linear regression. Exposure-response (E-R) relationships of $C_{ss,trough}$ with clinical responses (change from baseline [BL] in mMCS and lymphocyte count at week 12) were assessed using Spearman's correlation and locally weighted regression line fit.

***Results:*** Arithmetic mean $C_{ss,trough}$ was similar across time points (range: 31.8–42.5 ng/mL and 64.1–71.1 ng/mL for 1 mg and 2 mg, respectively), indicating that steady-state was achieved in week 1. $C_{ss,avg\ trough}$ values were dose-proportional (geometric mean [GM]: 33.96 and 65.48 ng/mL, respectively), with moderate intersubject variability (Table 1). The GM $C_{ss,avg\ trough}$ was ~30% higher in women than men. Dose-normalized $C_{ss,avg\ trough}$ values negatively correlated with age (slope −0.359, $p$=0.035) and TBW (slope −0.379, $p$=0.006). Exploratory E-R relationships between $C_{ss,trough}$ and clinical responses were statistically significant; the highest response was seen with $C_{ss,trough}$ levels of ≥45–50 ng/mL for mMCS (Figure 1) and ≥30–60 ng/mL for lymphocyte count (Figure 2).

***Conclusion:*** Dose-proportional etrasimod $C_{ss,trough}$ levels were achieved and maintained from weeks 1 to 12 in patients with moderately-to-severely active UC. Modest gender, age, and TBW effects contributed to variability in trough exposure which was not clinically meaningful. Exploratory ER relationships were consistent with previously reported dose-response relationships in the Phase 2 study and support an etrasimod 2-mg once-daily dosing regimen for Phase 3. ClinicalTrial.gov: NCT02447302.

***Keywords:*** Ulcerative colitis, etrasimod, sphingosine-1-phosphate receptor modulator

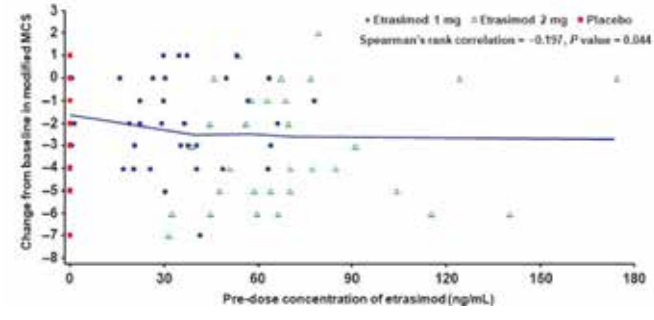



**Figure 1.** Scatter plot of change from baseline in modified Mayo Clinic Score vs. etrasimod pre-dose concentration (Css, trough) at week 12. Line shown is a locally weighted regression fit.

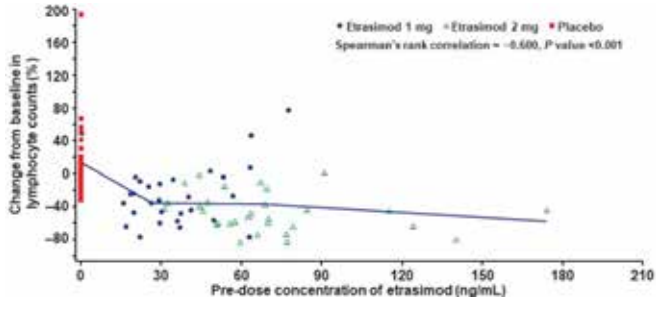



**Figure 2.** Scatter plot of percentage change from baseline in lymphocyte counts (%) vs. etrasimod pre-dose concentration (Css, trough) at week 12. Line shown is a locally weighted regression fit.

**Table 1.** Summariy of etrasimod $C_{ss, avg\ trough}$ by treatment (overall and by gender). Placebo treated patients not shown.

| Summary Statistic | Treatment Group | | | | | |
|---|---|---|---|---|---|---|
| | Etrasimod 1 mg | | | Etrasimod 2 mg | | |
| $C_{ss,avg\ trough}$ (ng/mL) | Male (N = 30) | Female (N = 22) | Overall (N = 52) | Male (N = 26) | Female (N = 22) | Overall (N = 48) |
| Geometric Mean | 29.96 | 40.27 | 33.96 | 57.91 | 75.71 | 65.48 |
| Geometric % CV | 46.80 | 58.22 | 53.85 | 36.59 | 38.01 | 39.55 |

Abbreviation: CV = coefficient of variation.

***OP-09***

## *Is there a correlation between clinical, endoscopic and histological activity in Ulcerative Colitis (RCH): Preliminary results of a prospective study of evaluation of Mayo score and Nancy index?*

**Nada Lahmidani[1], Laila Chbani[2], Mariam El Khayari[1], Maria Lahlali[1], Asmae Lamine[1], Hakima Abid[1], Mounia El Yousfi[1], Dafr Allah Benajah[1], Sidi Adil Ibrahimi[1], Mohammed El Abkari[1]**

*[1]University Hospital Hassan II Fez Morocco/Gastroenterology, Morroco*
*[2]Laboratory of Anatomopathology, University Hospital Hassan II Fez Morroco, Morroco*

***Background/Aims:*** The Nancy index has recently been reported as a good index for assessing histological activity in UC, but the correlation between clinical, endoscopic and histological activity remains debate a subject. Our aim is to evaluate the correlation between clinical, histological and endoscopic activity in patients with UC, based on the Mayo score and Nancy index.

***Materials and Methods:*** It is an open prospective study started in June 2018. We included patients diagnosed with UC who underwent lower endoscopy with biopsies. We evaluated the correlation between histological and endoscopic activity.The endoscopic remission was defined by the Mayo score 0 or 1, and the histological remission was evaluated by the Nancy index including grade 0: chronic inflammatory infiltrate absent or minimal, grade 1: chronic inflammatory infiltrate without acute inflammation, grade 2: slightly active disease with minimal acute inflammation, grade 3: moderately active disease and grade 4: severely active disease with histological ulcerations).The Kappa (K) test was used to study the concordance.

***Results:*** 46 patients with UC were included. The average age was 42, with a sex ratio F/H: 1.22. Localization was pancolitis in 65.2%. Almost 46% had clinical active disease and 82.6% had endoscopic activity, 15.2% of whom had severe activity. Based on Nancy index, 34.7% had chronic inflammation (grade 0 and 1), 65.3% had acute inflammation and 15.2% had severe activity. The cross-section of the clinical, endoscopic and histological scores showed no correlation between the histological and the Mayo clinical score with a K at (-0.07). There was a good correlation between the endoscopic subscale and the histological score of Nancy with K at 0.85.Active histological involvement (grade Nancy ≥1) was observed in mucosal samples in 37.5% of cases with normal endoscopy.

***Conclusion:*** Preliminary results confirmed the good correlation between endoscopic and histologic activity, and that the Nancy Score is an easy and reliable score that can be used in our routine practice for assessing the activity of UC.

***Keywords:*** Uclerative colitis, correlation, histology, endoscopy, activity

***OP-10***

## *The risk of colorectal cancer ın patients with ınflammatory bowel disease: A systematic review and meta-analysis*

**Weijie Zhou, Hao Chen, Weihong Sha**

*Guangdong Provincial Peoples Hospital, Guangdong, China*

***Background/Aims:*** Inflammatory bowel disease (IBD) is associated with a high risk of colorectal cancer (CRC). However, previous studies have not reported the worldwide risk of CRC in IBD and the incidence of different stratification. This meta-analysis aims to estimate the worldwide risk and explore the incidence in different stratification.

***Materials and Methods:*** A literature search on Medline and Pubmed databases was conducted using terms related to CRC in IBD from inception to 2018. Overall incidence rate of CRC were obtained using a random-effects model as well as a cumulative risk data at 10 years, 20 years, and 30 years of the disease. Subgroup analysis was conducted to explore the incidence in different stratification.

***Results:*** Of 3620 studies, 46 articles were included and the total number of patients with IBD was 142190, in which 38672 had Crohns disease (CD) and 103518 had ulcerative colitis (UC). The overall prevalence of CRC was estimated to be 1.17% (95% CI 1.03-1.31%). Subgroup analysis by stratifying the studies according to the region, IBD type and tumor site revealed significant difference. The risk of CRC was 0.91% (95% CI 0.63–1.20%) at 10 years, 3.66% (95% 2.42–4.90%) at 20 years, and 12.58% (95% CI 5.92–19.23%) at 30 years after IBD diagnosis.

***Conclusion:*** We found that the worldwide incidence of CRC in IBD was low and the highest incidence rate was recorded in Australia among 5 continents. Patients with UC had a higher risk of CRC than those with CD. In both UC and CD, the colon was more susceptible to developing CRC.

***Keywords:*** Inflammatory bowel disease, colorectal cancer, incidence

---

***OP-11***

## *Colonic Rnf186 gene expression in ulcerative colitis patients*

**Nalan Gülşen Ünal[1], Cansu Çalışkan Kurt[1], Nevin Oruç[1], Çağdaş Aktan[2], Ayşegül Kozak[2], Başak Doğanavşargil[3], Ömer Özütemiz[1]**

*[1]Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*
*[2]Department of Medical Biology, Ege University School of Medicine, İzmir, Turkey*
*[3]Department of Pathology, Ege University School of Medicine, İzmir, Turkey*

***Background/Aims:*** Ulcerative colitis (UC) is chronic inflammatory bowel disease which is characterized by inflammation and ulceration of the colonic mucosa. Genome-wide association studies have identified susceptible loci for UC, including a gene that is encoding RING finger protein 186 (RNF186). It was shown that RNF186 controls protein homeostasis in colonic epithelia and regulates intestinal inflammation. However, it is unclear how a role of RNF 186 expression plays for the extention of colitis. The aim of this study is to investigate the expression of RNF 186 in colonic segments biopsies of treatment-naiv UC patients and to compare it healthy individuals.

***Materials and Methods:*** This is a prospective study. A total 25 UC patients and 21 healthy indivudials were enrolled in this study between January 2017-January 2019. UC diagnosed with clinical, endoscopical and histopathological findings according to ECCO guidelines. Colonoscopic activity and extention of colitis were noted. Biopsies from six colonic segments (cecum, ascending colon, transverse colon, descending colon, sigmoid colon and rectum) were evaluated for histopathological changes and RNF186 gene expression. The expression levels of RNF 186 were determined by using template cDNA samples and qPCR Array study "All-

in-OneTM qPCR Mix" (Genecopoeia). Primers/probes specifically designed for our target gene RNF186 and housekeeping gene were used for the study. Final analysis was performed with $2^{-\Delta\Delta CT}$ method for the comparison of gene expression.

***Results:*** A total 25 patients (17 male, 8 female) and 21 healty control were included in the study. Disease extention were E3 in 13 patients, E2 in 10 patients and E1 in 2 patients. RNF186 expression were found significantly decreased in colonic segments of UC patient compared to healthy controls. RNF186 expression in involved colonic segments of UC patients were similar to uninvolved segment of the same patients. RNF186 expression was decreased in involved segments up to 7,15 fold compared to healty controls while it was decreased in uninvolved segments up to 8,44 fold compared to healty controls. RNF186 gene expression rates of involved colonic segments and uninvolved colonic segments were shown in table 1 and table 2, respectively.

***Conclusion:*** This is the first study evaluating the RNF186 gene expression in all colonic segments of treatment-naiv UC patients and healty controls. RNF186 expression were significantly decreased in involved and uninvolved colonic segments in UC patients compared to healty controls. This study revealed that UC is pancolonic genetic disorder mainly orchestrazied RNF186. RNF186 has a protective role and decreased RNF186 gene expression both involved and uninvolved segments in UC patients may suggest its probable role in colonic involvement and progression of disease.

***Keywords:*** RNF186, ulcerative colitis, gene expression

---

***OP-13***

## *Deflamin, a non-toxic oligomer from lupinus albus seeds, resists digestion and inhibits colitis by targeting MMP-9 activity in vitro and in vivo*

**João Boavida Ferreira[1], Joana Mota[2], Ana Lima[2], Rosa Direito[3], João Rocha[3], Maria Eduardo Figueira[3], Anabela Raymundo[2], Ricardo Boavida Ferreira[2], António Guimarães[1], António Moreira[1]**

*[1]Instituto Português De Oncologia De Lisboa Francisco Gentil, Lisboa, Portugal*
*[2]Instituto Superior De Agronomia, Lisboa, Portugal*
*[3]Faculdade De Farmácia Da Universidade De Lisboa, Lisboa, Portugal*

***Background/Aims:*** Matrix metalloproteinases (MMPs), particularly MMP-9, are important mediators of inflammation in inflammatory bowel disease (IBD). Whilst MMP-9 inhibitors (MMPIs) have been demonstrated to effectively reduce inflammation in IBD, their efficacy has been hampered by low specificity, high toxicity and overall severe secondary effects. Deflamin, an oligomer isolated from lupin seeds, is a novel type of MMPI that is edible and proteinaceous in nature, and survives boiling and digestion. The aim of this work was to understand if deflamin can be used as an anti-inflammatory agent in diet, using *in vitro* and *in vivo* models of colitis.

***Materials and Methods:*** Deflamin was isolated from lupin seeds using a clean extraction method (food-compatible). MMPI activities as well as anti-proliferative and anti-invasion activities were determined in colon adenocarcinoma (HT-29) cells. Anti-inflammatory activities were tested using *in vivo* models of experimental TNBS-induced colitis in mice with oral and intraperitoneal administrations of 15 and 10 $mg.kg^{-1}$, respectively. Histological expression of COX-2, iNOS and MMP-9 was analyzed in colons. Food products (cookies) containing deflamin were produced and assessed for their digestibility and efficacy in *in vivo* models of AA-induced colitis. The expression of inflammatory and oxidative stress-related biomarkers such as lipid peroxidation, SOD and GPx was also evaluated.

***Results:*** *In vitro* studies showed that deflamin did not affect cell growth or metabolism in HT-29 cells (suggesting low cell toxicity) but successfully impaired cell invasion while reducing MMP-9 activity in a dose-dependent manner (Figure 1). With the *in vivo* model of experimental colitis, a reduction of the extent of visible injury (ulcer formation) (Figure 2) was seen, along with a reduction of general histological features of colon inflammation, particularly in the oral administrations (Figure 3). A significant decrease in the expression of COX-2 and iNOS and in the activity of MMP-9 was also observed in the colon tissue. Deflamin-containing cookies also reduced colitis injuries, whilst significantly reducing oxidative stress markers, namely SOD activity and lipid peroxidation.

***Conclusion:*** Our work validates deflamin as a novel type of MMPI that survives cooking and digestion and is effective when administered orally, strongly suggesting a therapeutic potential use in gut inflammation.

***Keywords:*** Deflamin, inflammatory bowel disease, matrix metalloproteinase-9, colitis

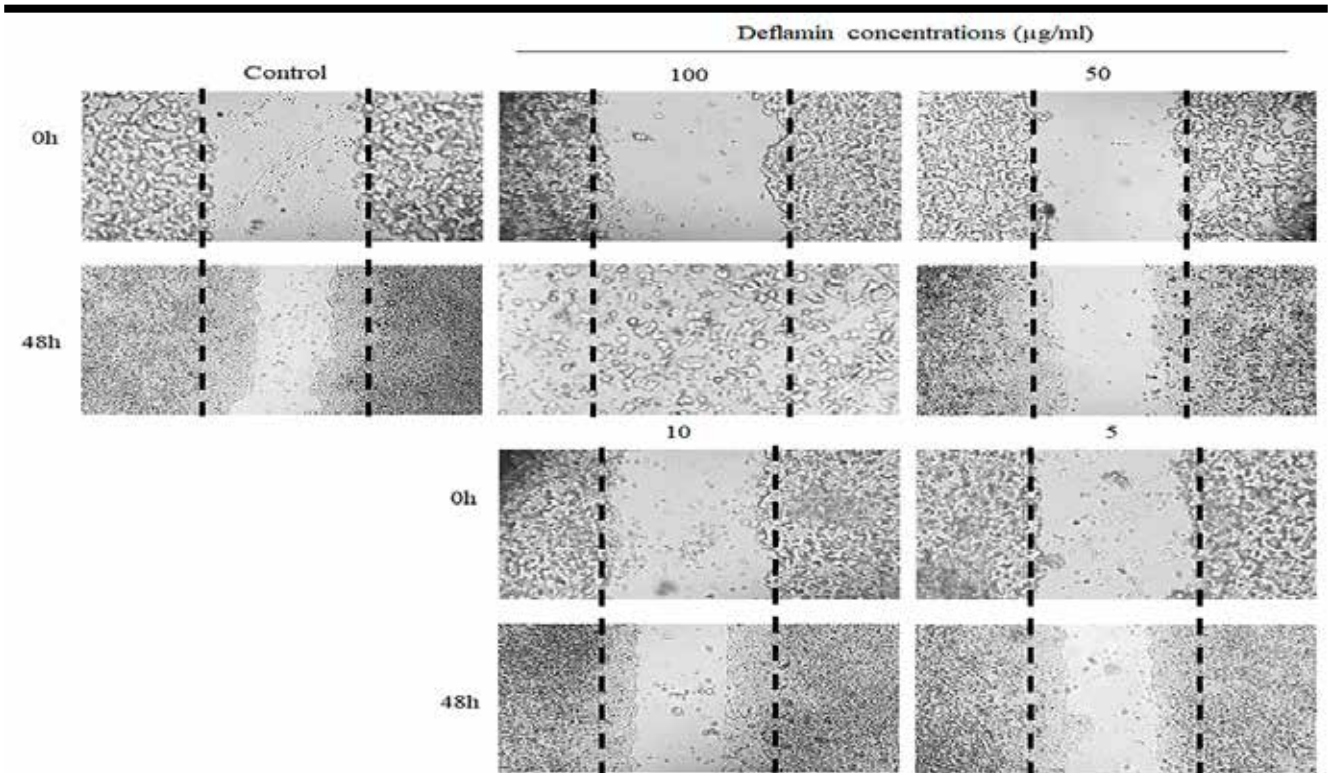



**Figure 1.** HT-29 cell invasion after exposure to different concentrations of deflamin, as determined by the wound healing assay. Cells were grown until reaching 80% confluence and the monolayer was scratched with a pipette tip (0h). Cells were then exposed to 100, 50, 10 and 5 µg.ml$^{-1}$ deflamin and cell migration was recorded after 48 h. Results show that deflamin inhibits the gelatinolytic activity of HT-29 cells and reveals a dose-response effect, which can be useful for future studies.

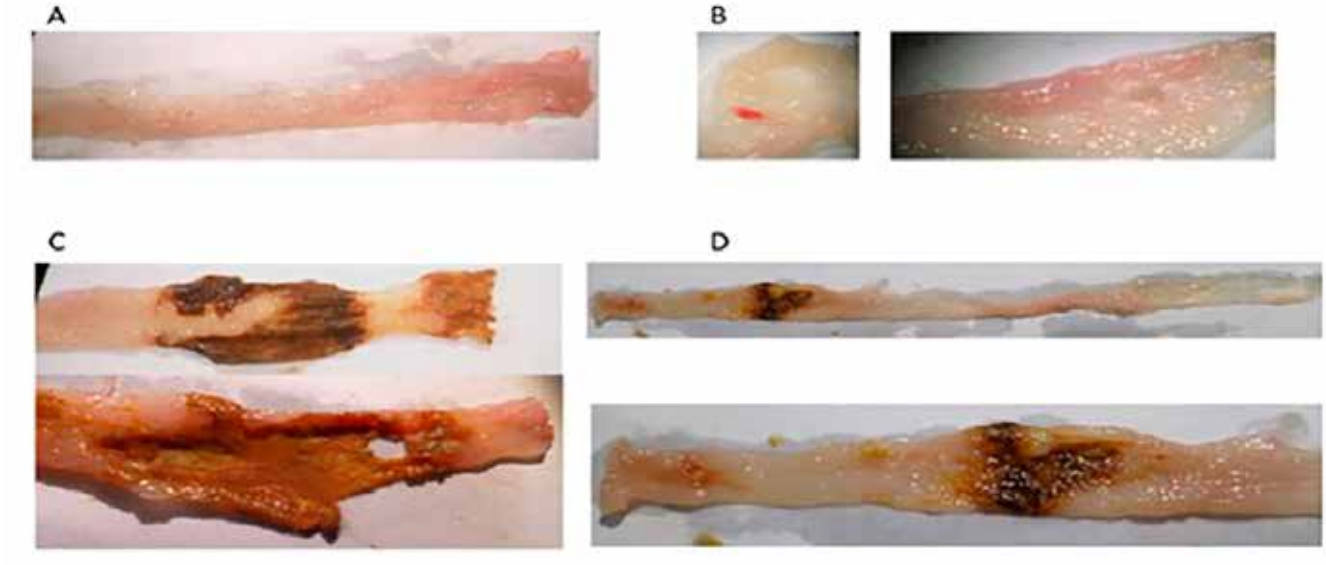



**Figure 2. a-d.** Effect of deflamin administration on the macroscopic observation of colon. (A) Sham group (n=6); (B) EtOH group (n=6); (C) TNBS group (n=8); (D) TNBS+deflamin p.o. group (15 mg.kg$^{-1}$; n=9). There was a clear attenuation of colon injury in animals treated with deflamin when compared to the TNBS-induced colitis.

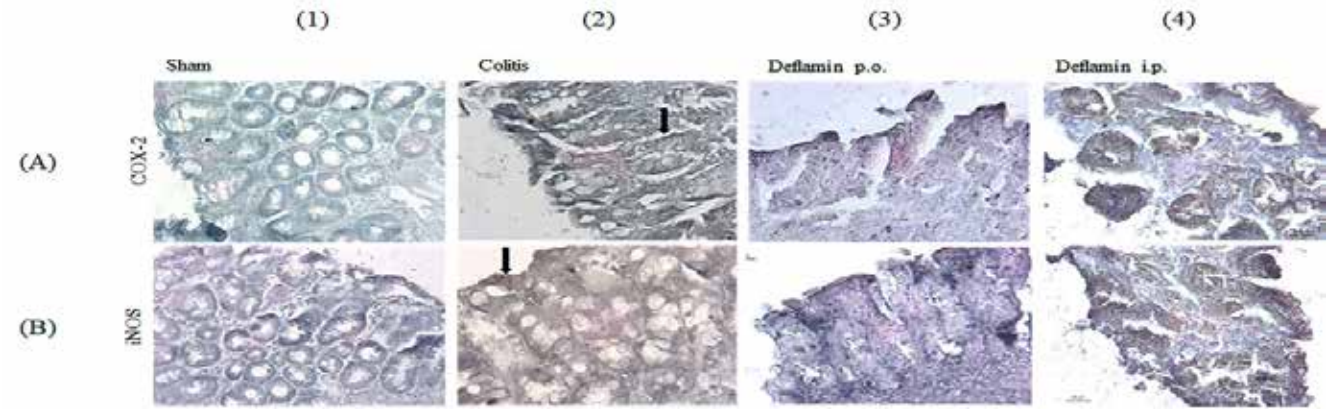



**Figure 3.** Effect of deflamin administration on the colon tissue expression of inflammation markers COX-2 and iNOS. (A) – COX-2 expression: (1) Sham group, (2) TNBS group, (3) TNBS+deflamin p.o. group, (4) TNBS+deflamin i.p. group; (B) – iNOS expression: (1) Sham group, (2) TNBS group, (3) TNBS+deflamin p.o. group (15 mg.kg-1, n=9), (4) TNBS+deflamin i.p. group (10 mg.kg-1, n=10). Results show that TNBS treatment induced a marked increase in COX2 and iNOS expression along the remaining crypts, indicated by brown color when compared with control samples. Administration of deflamin led to a reduced staining for COX-2 and iNOS, indicating that it impaired the expression of COX-2 and iNOS in the injured intestinal tissue.

***OP-14***

## *Serum spliceosome-associated protein 130 (SAP130) as a novel alarmin to predict disease severity and the clinical efficacy of exclusive enteral nutrition in Crohn's disease*

**Wenbin Gong[1], Kun Guo[2], Jianan Ren[3]**

*[1]Southeast University, Nanjing, China*
*[2]Nanjing Unıversity, Nanjing, China*
*[3]Jinling Hospital, Nanjing, China*

***Background/Aims:*** Spliceosome-associated protein 130 (SAP130) is recognized as a proinflammatory damage-associated molecular pattern (DAMP) with a pathogenic role in several non-pathogen mediated inflammatory diseases. But its role in gut inflammation, particularly in Crohn's disease (CD), remains unclear. The aim of this study was to analyze correlation between serum SAP130 level and disease severity, and to assess its predictive value for the clinical efficacy of exclusive enteral nutrition (EEN) in patients with active CD.

***Materials and Methods:*** Between August 2017 and January 2019, 73 consecutive CD patients (53 clinically active and 20 clinical remission) and 20 healthy control individuals were enrolled. Their serum SAP130 levels were measured. Correlations between the serum SAP130 levels and disease severity were evaluated. The colon tissue SAP130 and its receptor Mincle (macrophage-inducible C-type lectin) in active CD were measured for further exploration. Furthermore, the serum SAP130 level was investigated as a predictor of clinical efficacy in 40 patients treated with EEN within the group of 53 patients with active CD.

***Results:*** The serum SAP130 levels were significantly increased in the patients with active CD compared with remission CD patients ($p<0.001$) and control individuals ($p<0.001$), and they varied according to clinical activity and were significantly correlated to disease severity (all $p<0.05$). In parallel, the expressions of colon tissue SAP130 and Mincle both elevated in active CD. Additionally, the serum SAP130 level declined in patients with active CD who achieved efficacy at week 8 after EEN ther-

apy. The areas under the curves for the SAP130 levels at the end of week 8 that could predict clinical remission and clinical response were 0.91 and 0.73, respectively.

***Conclusion:*** The preliminary evidence shows that SAP130 might be a potential noninvasive biomarker, which correlates well with disease severity and the clinical efficacy of EEN in CD.

***Keywords:*** Spliceosome-associated protein 130, clinical efficacy, Crohns disease

---

***OP-15***

## *Induction therapy with tofacitinib ın patients with moderate-to-severe ulcerative colitis*

**Sudabeh Alatab[1], Zhaleh Dinari[2], Homayoon Vahedi[1], Anahita Sadeghi[1], Alireza Sima[1]**

*[1]Digestive Disease Research Center, Digestive Disease Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*
*[2]Department of Internal Medicine, Kermanshah University of Medical Sciences, Iran*

***Background/Aims:*** Inflammatory bowel disease (IBD), has two main forms of Ulcerative Colitis (UC) and Crohn's Disease (CD) and characterized with chronic-relapsing inflammation of the gastrointestinal tract. The JAK-STAT signaling pathway is implicated in the pathogenesis of IBD. We evaluated the efficacy of Tofacitinib, an oral, small-molecule Janus kinase inhibitor, for induction of clinical response in active UC.

***Materials and Methods:*** This study was a prospective, open-label, clinical trial (IRCT20181217042020N1). Adult patients (n=54) with moderate-to-severe UC (mayo score>7) who had inadequate response or intolerance to conventional or TNF antagonists therapy were enrolled. Patients received 10 mg Tofacitinib twice daily for 8 weeks. The primary end point was achieving clinical response (30% reduction from baseline in mayo score with at least 3 points and no rectal bleeding subscore>1). Adverse events (AEs) and laboratory parameters were recorded.

***Results:*** 50 patients completed the study. The mean age of subjects was 37.6 years with mean UC duration of 8.02 years. No significant changes occurred in lipid profile, hematological index and liver function tests. The levels of ESR (26.8 vs 15.8 mm/h, p=0.001) and Calprotectin (1155.6 vs 452.7 mg/L, p=0.001) significantly decreased at week 8. The mean Mayo score decreased from 10.1 to 4.2 (p=0.001). The clinical response occurred in 73.2% of patients. No relation found between gender and clinical response. Pancolitis decreased from 75.6% to 43%.8. There were 11 minor AEs of increased bloating (6) skin dryness and acne (3) and nasopharyngitis (2). Serious infection occurred in one patients and none of patients developed herpes zoster infection.

***Conclusion:*** In patients with moderate-to-severe UC, short-term treatment with Tofacitinib significantly improved the severity of disease with no gender preference. Our results is comparable with other results showing that Tofacitinib is effective for induction of remission and improvement of quality of life.

***Keywords:*** Ulcerative Colitis, tofacitinib, clinical response

---

***OP-16***

## *Endoscopic management of post sleeve gastrectomy complications, where are we now?*

**Ahmed El-Mikkawy**

*Theodor Bilharz Research Institute, Governorate, Egypt*

***Background/Aims:*** With the current epidemic of obesity and the last reports of world health organization more than 2.1 billion adults were estimated to be overweight and obese, 25 million have classical criteria necessitating bariatric surgery. Leak, stenosis and bleeding are the most met perioperative complications, which requires multidisciplinary team including; Intensivist, endoscopist, interventional radiologist and surgeon. The endoscopic management is a simple, non-invasive technique. Our aim is to the study the incidence of post sleeve gastrectomy (SG) complications and the role of endoscopic management.

***Materials and Methods:*** This is a randomized study conducted on 200 patients underwent SG from 2015-18. They were divided into 3 groups; leak group 154 patients (77%), stenosis group 40 patients (20%) and bleeding group 10 patients (5%). The endoscopic management included; stenting using MEGA stents±over the scope clips (OVESCO), or one or multiple double pigtail (DPDs) drain (for leak), balloon dilation±stenting (for stenosis), and hemostasis for bleeding by either heamoclips or coagulation. Leaks are either, simple (only leak) or associated with the presence of a stricture beneath. They are classified according to the timing of clinical signs into; early (within 2 weeks), intermediate (2-6 weeks) and late (>6 weeks) and according to orifice size, into; small (<1cm) and large (>1cm).

***Results:*** There was female predominance; mean age was 33.6±13.8 years, median body mass index pre-operative was 37.9±4.3. Incidence of peri-operative complications was (3.8%) of the total number done. In leak group, median time post-operative was 3.6 days. 103 Patients (66.9%) underwent MEGA stenting±OVESCO clipping, 37 patients (24.02%) needed draining the leak collection into gastric lumen using DPDs, 13 patients (8.4%) needed both laparoscopic or open surgery and four of them died. In stenosis group, median time post-operative was 13 days, 7 patients (17.5%) underwent one session of balloon dilation, 26 patients (65%) needed multiple sessions of balloon dilation>2 times, 7 patients (17.5%) needed stenting, 1 patient (0.25%) needed gastric bypass with no mortalities. In bleeding group, bleeding was the earliest complication and endo-clips stopped bleeding in 7 (70%) patients.

***Conclusion:*** Endoscopic management is simple and non-invasive, promising in control post bariatric complications and reduce the need of re-surgery but it takes time and depends on the expertise of the endoscopist.

***Keywords:*** Sleeve gastrectomy, leak, stenosis

---

***OP-17***

## *Endoscopic ultrasound fine-needle biopsy and macroscopic on-site evaluation (MOSE) with combined cytological and histological analysis may overcome the need of rapid on-site evaluation (ROSE): A prospective study*

**Pedro Costa-Moreira[1], Filipe Vilas-Boas[1], Joana Carvão[2], Rui Gaspar[1], Vítor Pereira[2], Armando Peixoto[1], Marco Silva[1], Pedro Moutinho-Ribeiro[1], Susana Lopes[1], Guilherme Macedo[1]**

*[1]Wgo Porto Gastroenterology and Hepatology Training Center, Portugal*
*[2]Hospital Central Do Funchal, Portugal*

***Background/Aims:*** Fine-needle biopsy (FNB) is an adjunct or alternative to fine-needle aspiration (FNA) in endoscopic ultrasound (EUS) tissue acquisition. The ability EUS-FNB to provide a macroscopic visible core (MVC) allows the evaluation of the biopsy specimen by the endoscopist (Macroscopic On-Site Evaluation-MOSE). We aimed to assess the accuracy of simultaneous cytological/histological analysis after MOSE in EUS-FNB, as well as to compare the diagnostic yield of this new method with the use of ROSE in EUS-FNA.

***Materials and Methods:*** Prospective study with a consecutive sample of patients who underwent EUS-FNB for solid lesions of the upper gastrointestinal tract from January 2018 to December 2018. After EUS-FNB, the MVC was used for histologic evaluation, and the residual sample was used in a smear for cytologic assessment. Control cases submitted to ROSE were obtained from the same center, using a historical cohort of EUS-FNA of solid pancreatic lesions.

***Results:*** We included 52 cases (mean age 61.1±6.5 years, 58% males) with solid pancreatic lesions (51.9%), lymph nodes (19.2%) and subepithelial lesions of the digestive tract (28.8%). Lesions submitted to EUS-FNB had a mean diameter of 37.1±18.0mm. For EUS-FNB we used mostly "Franseen" (65.4%) and "Fork-tip" (25.0%) needles, with a median number of 3 (IQR 2-3) passes. The obtained MCV was satisfactory for histological evaluation in 82.7% of the cases. The combined cytology-histological analysis had a diagnostic yield of 86.5%. MOSE technique followed by combined cytology-histological analysis showed a sensitivity of 93.3%, specificity of 85.7% and a positive predictive value of 97.7% to obtain an adequate sample. When compared with cases submitted to EUS-FNA+ROSE (61 lesions, with a mean diameter of 37.6±35mm) the combined cytology-histological revealed a diagnostic accuracy in a similar proportion (MOSE: 86.5%, ROSE: 83.6%, p=0.66).

***Conclusion:*** The combined cytology-histological analysis is a new and easy-to-perform tool that showed an overall diagnostic yield similar to ROSE.

***Keywords:*** Endoscopic ultrasound, fine-needle biopsy, citology, histology

---

***OP-18***

## *Technical outcome by organ of endoscopic submucosal dissection using the clutch cutter for early digestive tract epithelial tumors*

**Kazuya Akahoshi, Masaru Kubokawa, Jyunya Gibo, Yuki Shiratsuchi, Kazuaki Akahoshi, Kentarou Yodoe, Kazuki Inamura, Shigeki Osada, Toshiyuki Abe, Yusuke Kimura**

*Aso Iizuka Hospital, Japan*

***Background/Aims:*** There are few reports comparing the technical results of endoscopic submucosal dissection (ESD) using the Clutch Cutter for early digestive tract epithelial tumors by organ. The aim of this study is to clarify the procedure results of ESD using the Clutch Cutter for early digestive tract epithelial tumors by organ.

***Materials and Methods:*** From June 2007 to December 2018, 1515 consecutive patients (991 men, 524 women; mean age 71 years, range 35-95) with a diagnosis of early digestive tract epithelial tumor (adenoma, intramucosal, or superficial submucosal cancer without lymph node involvement) that had been confirmed by preliminary endoscopy, EUS, and endoscopic biopsies, were enrolled into this prospective study. The Clutch Cutter was used for all steps of ESD (marking, mucosal incision, submucosal dissection, and hemostatic treatment). Therapeutic efficacy and safety were assessed by organ.

***Results:*** The number of cases by organ was 125 in the esophagus, 875 in the stomach, 15 in the duodenum, 2 in the small intestine, and 498 in the colon and rectum. Overall R0 resection rate, perforation rate, post ESD bleeding rate, and mean operating time were 92%, 1%, 3%, and 89 minutes, respectively. The R0 resection rate was 87% in the esophagus, 96% in the stomach, 67% in the duodenum, 50% in the small intestine, and 86% in the colon and rectum. The perforation rate was 0.8% in the esophagus, 0.1% in the stomach, 7% in the duodenum, 0% in the small intestine, and 2% in the colon and rectum. The post-ESD bleeding rate was 0.8% in the esophagus, 3% in the stomach, 0% in the duodenum, 0% in the small intestine, and 3% in the colon and rectum. The mean operating time was 71 minutes for the esophagus, 93 minutes for the stomach, 110 minutes for the duodenum, 35 minutes for the small intestine, and 87 minutes for the colon and rectum.

***Conclusion:*** ESD using the Clutch Cutter is a safe and technically efficient method for resecting early digestive tract epithelial tumors of all organs.

***Keywords:*** Early digestive tract epithelial tumor, ESD, clutch cutter

**OP-19**

## *Endoscopic submucosal dissection with tunneling method versus circumferential ıncision for treatment of superficial esophageal cancer*

**Tarso Magno Leite Ribeiro[1], Vitor Arantes[2], Jonas Augusto Ramos[1], Roberto Gardone Guimarães[2]**

*[1]Federal University of São João Del Rei, Brazil*
*[2]School of Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil*

***Background/Aims:*** Endoscopic submucosal dissection (ESD) is the best approach to treat esophageal superficial neoplastic lesions, enabling a higher rate of *en bloc* R0 resection and a lower recurrence rate. Esophageal ESD requires a long learning curve and still is restricted to tertiary centers. Esophageal ESD strategies include a tunneling method (TM) and the most traditional circumferential incision (CI). There are scarce reports in the West comparing clinical outcomes for existing ESD techniques. This study aimed to compare two esophageal ESD techniques: TM versus CI.

***Materials and Methods:*** Single-center retrospective review of prospectively collected endoscopic data of a specialized ESD center in Brazil, investigating consecutive patients that underwent esophageal ESD between October 2009 and December 2018. After placement of markings and submucosal injection, two different ESD strategies were assessed: TM- first set the distal incision then proceed to oral incision followed by submucosal dissection in the oral-anal direction; CI – proceed a circumferential incision outside tumor borders followed by submucosal dissection. The following variables were assessed: demographic data, clinical-pathologic characteristics, procedure duration, *en bloc* resection rate, R0 resection rate, curative resection rate, local recurrence and adverse events.

***Results:*** A total of 65 procedures were carried out, 23 TM and 42 CI, with a mean follow-up of 8 years and 2.75 years respectively (p<0.001). Patient demographics and baseline characteristics are described in Table 1. Table 2 presents the clinical outcome of both ESD procedures. There was no statistically significant difference in terms of clinical outcome among ESD with TM versus CI: *en bloc* resection rate (91.3% vs 100%, p 0.122), R0 resection (65.2% vs 78.6% p 0.241), curative resection (65.2% vs 73.8%, p 0.466), average procedure time (118.7 min vs 102.4 min, p 0.351), local recurrence rate (8.7 vs 2.4, p 0.284), and procedure-related complications such as bleeding (0 vs 2.4%, p 0.53), perforation (8.7% vs 4.8%, p 0.610) and stricture (8.7% vs 9.5% p 0.310). Lesions were more superficial in patients that underwent ESD with CI (p<0.003). There was no mortality related to the procedures.

***Conclusion:*** ESD with TM or CI demonstrated to be equally safe, with low complication rate and zero mortality, presenting similar results in terms of clinical outcome for patients with superficial esophageal neoplastic lesions.

***Keywords:*** Endoscopic submucosal dissection, esophageal cancer, therapeutic endoscopy

***Table 1.*** Baseline characteristics

| Characteristic | TM ESD | CI ESD | P value |
|---|---|---|---|
| Number of Patients | 23 | 42 | - |
| Gender | | | 0.317**** |
| Male | 19 (82.6%) | 30 (71.4%) | |
| Female | 4 (17.4%) | 12 (28.6%) | |
| Age (years) mean±SD | 64.6±12.4 | 64.8±9.8 | 0.947* |
| Tumor size (mm)±SD | 28.9±12 | 35.8±19.9 | 0.380*** |
| Location of the tumor in the esophagus | | | 0.165* |
| Upper one-third | 1 (4.3%) | 6 (14.3%) | |
| Middle one-third | 8 (34.8%) | 20 (47.6%) | |
| Lower one-third | 14 (60.9%) | 16 (38.1%) | |

***Table 1.*** Baseline characteristics

| Characteristic | TM ESD | CI ESD | P value |
|---|---|---|---|
| Paris Classification | | | 0.773* |
| Elevated 0-IIa | 4 (17.4%) | 12 (28.6%) | |
| Flat 0-IIb | 15 (65.2%) | 24 (57.1%) | |
| Depressed 0-IIc | 3 (13%) | 5 (11.9%) | |
| Mixed types | 1 (4.3%) | 1 (2.4%) | |
| Luminal extent | | | 0.147* |
| <1/2 | 14 (60.9%) | 15 (35.7%) | |
| ≥1/2 | 5 (21.7%) | 16 (38.1%) | |
| >2/3 | 4 (17.4%) | 11 (26.2%) | |
| Lesion Type | | | 0.129* |
| SCC | 17 (73.9%) | 23 (54.8%) | |
| Dysplasia or adenocarcinoma associated with BE | 6 (26.1%) | 19 (45.2%) | |

SD: Standard deviation. * Chi square test. ** Fisher. ***Mann Whitney test. **** t-Student test. BE=Barretts Esophagus. SCC: Squamous Cell Carcinoma.

***Table 2.*** ESD outcomes

| Characteristic | TM ESD | CI ESD | P value |
|---|---|---|---|
| Curative resection | 15 (65.2%) | 31 (73.8%) | 0.466* |
| R0 Resection | 15 (65.2%) | 33 (78.6%) | 0.241* |
| En bloc resection | 21 (91.3%) | 42 (100%) | 0.122** |
| Procedure time (min) | 118.7±50.8 | 102.4±40.4 | 0.351*** |
| Recurrence | 2 (8.7%) | 1 (2.4%) | 0.284** |
| Tumor invasion depth | | | 0.003* |
| Dysplasia/intraepithelial neoplasia (M1) | 8 (34.8%) | 20 (47.6%) | |
| Lamina propria mucosae (M2) | 4 (17.4%) | 1 (2.4%) | |
| Muscularis mucosae (M3) | 5 (21.7%) | 12 (28.6%) | |
| Submucosa (SM1) | 4 (17.4%) | 0 | |
| Submucosa (SM2) | 0 | 8 (19%) | |
| Submucosa (SM3 or deeper) | 2 (8.7%) | 1 (2.4%) | |
| Procedure-related complications | | | |
| Bleeding | 0 | 2 (4.8%) | 0.536** |
| Perforation | 2 (8.7%) | 2 (4.8%) | 0.610** |
| Pneumomediastinum | 2 (8.7%) | 0 | 0.122** |
| Stricture | 2 (8.7%) | 4 (9.5%) | 0.310* |

* Chi square test. ** Fisher. ***Mann Whitney test. **** t-Student test.

***OP-20***

## *Experimental research on external magnetic assisted gastroscopy for transgastric and abdominal exploration biopsy*

**Dake Chu, Zixi Zhang, Jun Zhang, Yun Wang**

*Xian Jiaotong University, China*

***Background/Aims:*** Intraperitoneal exploration via natural endoscopy (NOTES) via gastric approach is a new concept of digestive endoscopy technology. It is found that after the soft endoscope penetrates the gastric wall into the abdominal cavity, it is not only difficult to effectively pull and move the exposure field of tissues and organs, but also unable to effectively explore the left upper quadrant, and other quadrants can not achieve the purpose of multi-angle exploration. To this end, we designed an external control permanent magnet and a magnetic ring to explore the effect of external magnetic assistance anchoring the soft endoscope body behind the abdominal wall on abdominal exploration and biopsy.

***Materials and Methods:*** A female pig model was used. First, the serosa layer was incised near the anterior gastric wall and antrum through a tunnel through the oral route with a needle knife, and the passage was enlarged with an expanding balloon. The ordinary gastroscope or the gastroscope with a mirror body magnetic ring were put into the abdominal cavity. Under the video system, ordinary gastroscopes try to explore the quadrants of the abdominal cavity through the depth and angle adjustment of the mirror body, and try to find the gallbladder, fallopian tube and appendix. Magnetically assisted gastroscopy (MAG) anchors magnetic rings to each quadrant by external magnets, and attempts to expose gallbladder, fallopian tube and appendix by pulling and moving tissues and organs.

***Results:*** There was no obvious bleeding in gastroscopy and magnetic ring endoscopy through balloon enlarged incision. General gastroscopy has a long operation time in the exploration of abdominal cavity, and failed to complete the exploration of spleen and left upper quadrant. It is difficult to pull and move the omentum. Although common gastroscopy can realize the exploration of gallbladder and fallopian tube, it is difficult to operate and takes a long time. Moreover, it is difficult to move tissues and organs in the exploration of appendix. With in vitro magnetic assistance, because the mirror body is anchored to the abdominal wall to provide a support point and moves with the magnet in vitro, endoscopy can effectively explore the abdominal cavity of each quadrant including the spleen from multiple angles, and the operation time is significantly shortened. In the exploration of gallbladder, fallopian tube and appendix, magnetic assistance is relatively easy to operate, the time is shortened, and the visual field of each organ is well exposed. No obvious abdominal wall tissue and abdominal viscera injury were found during laparotomy.

***Conclusion:*** Extracorporeal magnetic-assisted transperitoneal endoscopy biopsy is more extensive, less difficult to operate, better visual field exposure and no additional injury than conventional gastroscopy on intraperitoneal exploration.

***Keywords:*** NOTES, external magnetic assistance, intraperitoneal exploration, gastroscopy

---

***OP-21***

## *Effects and mechanism of conditioned medium derived from bone marrow mesenchymal stem cell with inflammatory activation on regeneration of radiation-induced intestinal injury in vitro*

**Chen Zhang, Hao Chen, Weihong Sha**

*Guangdong Provincial Geriatrics Institute, China*

***Background/Aims:*** Conditioned medium from mesenchymal stem cells (MSC-CM) may represent a promising alternative to MSCs transplantation. Our previous study has demonstrated that MSC-CM with inflammatory activation improves the structural and functional restoration of the small intestine after radiation-induced intestinal injury, improving the survival status of rats with acute radiation injury, but its potential cellular mechanism has not been further explored. To observe the effect of MSC-CM with inflammatory activation on the proliferation and apoptosis of intestinal epithelial cells (IEC-6) after radiation injury and to investigate the cellular mechanism of pre-activated MSC-CM in repairing the small intestinal mucosa.

***Materials and Methods:*** IEC-6 cells were divided into four groups: control group, radiation injury group, normal MSC-CM (MSC-CMIEC-6(NOR)) group and inflammatory pre-activated MSC-CM (MSC-CMIEC-6(IR)) group. IEC-6 cells in the latter three groups were exposed to 10 Gy X-ray irradiation and cultured in DMEM-F12 medium, MSC-CMIEC-6(IR) and MSC-CMIEC-6(NOR) respectively. Cells in the control group were only cultured in DMEM-12 medium. Cultured cells were collected at 3 days after radiation to observe the proliferation of IEC-6 cells by using proliferating cell nuclear antigen immunofluorescence staining, and to observe the apoptosis by using TUNEL apoptosis staining and western blot assay.

***Results:*** Compared with the radiation injury group, in the MSC-CMIEC-6(IR) group, the number of cells positive for proliferating cell nuclear antigen increased significantly ($p<0.05$), the number of TUNEL positive cells decreased significantly ($p<0.05$), and the expression of Caspases-3 decreased significantly ($p<0.05$), However, there was no significant difference between the MSC-CMIEC-6(NOR) group and radiation injury group ($p>0.05$).

***Conclusion:*** MSC-CMIEC-6(IR), but not non-activated MSC-CM, significantly promotes the proliferation and reduces apoptosis of intestinal epithelial cells after radiation injury and therefore repair the injured intestinal tissue.

***Keywords:*** Mesenchymal stem cells, conditioned medium, small intestine, radiation-induced injury, paracrine

---

***OP-22***

## *Effect of advanced diagnosis modalities and disease phenotypes on ppi response of gastroesophageal reflux disease*

**Nilay Danış, Serhat Bor**

*Department of Gastreonterology, Ege University School of Medicine, İzmir, Turkey*

***Background/Aims:*** In Western countries, response rates for proton pump inhibitors (PPIs) are about 60-70% and higher in heartburn than regurgitation. The differences between response rates in phenotypes have not been adequately investigated. We evaluated PPI response rates of Barrett's esophagus (BE), erosive esophagitis (EE), nonerosive (NERD), esophageal hypersensitivity esophagus (EH) phenotypes and functional heartburn (FH), and success rates according to the different diagnostic techniques.

***Materials and Methods:*** Patients were randomly chosen among the patients from the database of Ege University Reflux outpatient clinic who were on continue PPIs. Among 1233 patients, 510 patients who accepted to response phone survey were included. Exclusion criteria were medications which other than PPIs and influence the study, upper gastrointestinal surgeries, cholecystectomy, major comorbidity, pregnancy. Subjects were evaluated with a validated questionnaire consisted of 28 questions.

***Results:*** 54 of those patients were diagnosed with only history. 151 patients were evaluated with history and UGE. 305 patients were underwent to UGE, HRM and 24 h intraesophageal MII-pH (off-PPI). Last group was classified into EE (117), NERD (94), EH (16), FH (58) BE (20). Response rate under 50% for either heartburn and/or regurgitation was accepted as unresponsive. Cumulative response rates for heartburn and regurgitation were 85.3% and 82.2% respectively. When the effect of advanced diagnostic modalities on response rates for heartburn and regurgitation among phenotypes were evaluated, the highest rate was in history + UGE group (91.4%, 85.4% respectively).

***Conclusion:*** We found a higher PPIs response rate than Western populations in all GERD patients. Response rate was not different in regurgitation compared to heartburn. When it is investigated according to the groups, response rate was highest in EE and lowest in EH and FH. Interestingly, response rates were similar between EE and NERD. It should be noted that these results were belong to a single/tertiary referral center with difficult to treat cases. Probably due to this reason, response rates of patients who were diagnosed by using all diagnostic modalities are lower than those who were diagnosed with only history and UGE.

***Keywords:*** Erosive esophagitis, nonerosive esophageal reflux disease, esophageal hypersensitivity, functional heartburn (FH)

***OP-23***

## *The effects of prophylactic proton pump inhibitors in combination with dual antiplatelet therapy on the development of post-stenting adverse cardiovascular events and coronary stent thrombosis in patients with acute coronary syndrome*

**Yücel Üstündağ[1], Yiğit Oğuz Ünal[2], Yonca Yılmaz Ürün[1], Belma Kalaycı[3]**

*[1]Department of Gastroenterology and Hepatology, Zonguldak Bülent Ecevit University School of Medicine, Zonguldak, Turkey*
*[2]Department of Internal Medicine, Zonguldak Bülent Ecevit University School of Medicine, Zonguldak, Turkey*
*[3]Department of Cardiology, Zonguldak Bülent Ecevit University School of Medicine, Zonguldak, Turkey*

***Background/Aims:*** In this study, we aimed to investigate the association of prophylactic proton pump inhibitör (PPI) therapy with the adverse cardiovascular events developing in patients with newly diagnosed acute coronary syndrome (ACS) and treated with imminent coronary stenting and dual anti-platelet therapy.

***Materials and Methods:*** 90 patients with ACS were included in the study. The patients were divided into three groups according to type of PPI they were given; as lansoprazole (n=30), rabeprazole (n=31) and pantoprazole (n=29).Biochemical parameters, asymmetric dimethylarginine (ADMA) and copeptin levels were examined at the time of diagnosis, at the end of 1st month and 6th month. Primer endpoint was to notice the development of additional cardiovascular events and coronary stent thrombosis under PPI therapy. Secondary endpoint was to determine any change of ADMA and copeptin levels with and without developing new cardiovascular events in the study cohort with respect to the type of PPI preparation.

***Results:*** The majority of 90 patients who participated in the study were male (77.8%), mean age 58.3, mean BMI 28.1, mostly overweight and obese (80%). The most common accompanying diseases were hypertension (50%), diabetes mellitus (24.4%) and hyperlipidemia (22.2%). Nearly 63% of the study group had smoking history. At the first month evaluation, only lansoprazole significantly increased the serum ADMA levels (p=0.04) and only pantoprazole significantly decreased the serum copeptin levels according to the time of admission (p<0.01). At the end of first month, 1 patient died in rabeprazole group and 1 patient had ST elevated myocardial infarction in pantoprazole group. At the end of the 6th month, the serum ADMA levels significantly increased compared to the time of admission and 1th month evaluation in all 3 groups (p<0.01). Lansoprazole and pantoprazole significantly increased serum copeptin levels (p<0.001 and p=0.001) when compared to the time of admission and the first month evaluation. Rabeprazole significantly increased the serum copeptin levels after 6 month, compared to the first month evaluation (p=0.02) but it was not significantly different when compared to the time of admission. At the end of sixth month, 8 patients had additional cardiovascular problems (8.9%) and this ratio was within the expected rate of adverse cardiovascular events after coronary stenting. Three of them were in the rabeprazole group (1 developed acute coronary syndrome (ACS), 1 stent thrombosis, 1 died), 4 were in the pantoprazole group (1 death, 3 had ACS) and 1 patient in the lansoprazole group had stent thrombosis and developed additional cardiovascular problems. According to our study, coronary stent thrombosis developed in 2 out of 88 (after excluding dead patients) (2.3%) which is a little bit higher than the normal prevalence of coronary stent thrombosis (%1.5).

***Conclusion:*** In our study, we observed that the use of PPI independent of its type caused significant changes in ADMA and copeptin levels in the study cohort which are well-known risk factors for adverse coronary events. Nevertheless, except the

high percentage of CST in the study population, adverse cardiovascular events and mortality in the study group were similar to expected rates in these patients. Thus, it seems that the addition of PPIs to dual anti-platelet therapy might have theoretical potential to increase the adverse cardiovascular events with regard to their effects on ADMA and copeptin levels, we did not notice clinical extrapolation of this potential effect in the study group.

***Keywords:*** Acute coronary syndrome, proton pump inhibitor, ADMA, copeptin, adverse cardiovascular events

***OP-24***

## *Efficacy of combined treatment using helicobacter pylori eradication therapy with anxiolytic in comparison with eradication therapy ın patients with postprandial distress syndrome: A randomized trial*

**Tetiana Alianova, Galina Solovyova**

*National Medical Bogomolets University, Kyiv, Ukraine*

***Background/Aims:*** Currently the problem of efficacious treatment of functional dyspepsia is not fully solved. Postprandial distress syndrome (PDS) occurs nearly twice more frequent that epigastric pain syndrome, in 50% these two syndromes are overlap. Most of the previous trials recommended prokinetics and eradication therapy for PDS treatment, however it was effective only in 15-30% of cases. Anxiolitics seems to increase the efficacy of treatment as they reduce signs of anxiety, which aggravate the symptoms of postprandial distress syndrome in patients. In previous trials Buspirone (5-hydroxytryptamine 1A receptor agonist) showed the possibility to relax the proximal stomach in healthy individuals. Aim of the study: to assess the superiority of combined treatment using Helicobacter pylori eradication therapy with anxiolytic (Buspirone) in comparison with eradication therapy (ET) in patients with postprandial distress syndrome (PDS).

***Materials and Methods:*** It was a randomized trial. Adult patients (18-45 years old) with confirmed diagnosis of PDS were eligible to participate after the informed consent was signed. Diagnosis of PDS was set according to Rome IV criteria. Exclusion criteria were: presence of "red flag" symptoms or comorbidities that could explain the symptoms. All patients were tested for Helicobacter pylori using rapid one-step immunochromatographic assay for detection of monoclonal Helicobacter pylori antigen in stool samples or in PCR for Helicobacter pylori DNA, or due to morphological method. We used Hamilton Anxiety and depression Scales (HADS) to assess the presence of anxiety. We used the SF-36 questionnaire to allocate the quality of life. To allocate patients randomly a numbered series of sealed envelopes containing the number of the group assignments were used. Patients from the first group received ET according to the Maastricht 5 (2017) with Buspirone 10 mg, 3 times daily. The second group received ET treatment only. Duration of therapy was 14 days. Patients were assessed on the 15th and 30th day after the treatment started. The superiority was qualified if there was more lasting decrease in symptoms severity, reduced level of anxiety, improved quality of life.

***Results:*** Of 63 randomized patients 34 were allocated to the first group and 29 to the second one. The groups were statistically comparable in age, sex, prolongation of symptoms and their severity. All 63 patients had H. pylori positive tests. Treatment led to the reduction of postprandial heaviness on the 15th day in both groups (group 1 – 85,2%; group 2 – 34,5%). Symptoms recurrence till 30th day occurred significantly more often in group 2 patients (13,8% of those patients in the group 1 and 80% in the group 2, who did not have any symptoms at the previous assessment, p<0,001). Mean anxiety scores before the treatment were: at group 1-7,9 (29,4% of the patients did not have anxiety, 29,4% had covered anxiety, 41,2% had clinically significant anxiety); at group 2-7,7 (31% of the patients did not have anxiety, 31% had covered anxiety, 38% had clinically significant anxiety). Both groups were statistically comparable in anxiety level before the treatment (p=0,92). Comparing the anxiety levels before and after the treatment, there was a significant decrease shown in group 1 (82,3%), and only in 20,6% in group 2 (p=0,001). The analysis of SF-36 questionnaire before the treatment demonstrated that patients from both groups had decreased scores at in Physical functioning, Physical role limitation, Body Pain, General health, Vitality, Social functioning. The mean scores of quality of life domains for the group 1 before the treatment were: Physical functioning (PF)-74,7; Physical role limitation (RP)-67,1; Body Pain (BP)-58,8; General health (GH)-57,4; Vitality (VT)-56,8; Social functioning (SF)-81,1; Emotional role limitation (RE)-76,7; Mental health (MH)-76,2. The results for group 2 were: PF-75,4; RP-69,0; BP-58,5; GH-56,2; VT-57,7; SF-80,5; RE-75,3; MH-78,6 (p for all domains>0,05). The mean SF-36 scores

for group 1 after the treatment were: PF-84,1; RP-78,3; BP-73,9; GH-69,7; VT-70,4; SF-89,3; RE-81,9; MH-83,8. For group 2: PF-82,1 (p=0,91); RP-77,9 (p=0,95); BP-63,9 (p=0,006); GH-60,7 (p=0,012); VT-58,4 (p=0,003); SF-81,3 (p=0,089); RE-78,9 (p=0,87); MH-79,8 (p=0,07).

***Conclusion:*** The combination of ET with anxiolytic (Buspirone) demonstrates clinical and statistical superiority to ET only showing more lasting regression of symptoms, statistically significant decrease of anxiety level and improvement of quality of life in Body pain, General health, and Vitality domains.

***Keywords:*** Postprandial distress syndrome, anxiety, quality of life

---

***OP-25***

## *Correlation of notch signal pathways and target proteins, and matrix metalloproteinases with type of gastric adenocarcinoma tumors*

Elif Yaprak Saraç[1], Adem Akcakaya[2]

*[1]Department of Histology and Embryology, İstanbul University İstanbul School of Medicine, İstanbul, Turkey*
*[2]Department of General Surgery, Bezmialem Vakif University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Most memberMost member of Notch pathways are known to be strongly expressed in gastric carcinomas, resulted in an increase of cancer cell proliferation and prevention of apoptosis. There is still a lack of understanding of the molecular mechanisms of Notch signaling in gastric carcinoma, hence, we aimed to investigate the association between Notch signaling with its receptors and the expression of matrix metalloproteinases (MMP2 and MMP9), and the gastric adenocarcinoma pattern.

***Materials and Methods:*** A total number of 73 patients (54 male, 19 female) undergoing total/subtotal gastrectomy for gastric adenocarcinoma were included in the study. The mean of age was 61.37±10.49. 29 (39.7%) patients undergone a subtotal gastrectomy while 44 (60.3%) undergone a total operation. The mean duration of hospitalization was 7.42±2.16 and 66 (90.4%) of patient had comorbidities. Their postoperative histopathological findings and clinical course were recorded. The expressions of four Notch receptors (Notch1, Notch2, Notch3, Notch4), two ligands DLL1 and DLL3, and potent downstream targets MMP2 and MMP9 were evaluated by immunohistochemistry (IHC) and correlated with clinical and pathological findings.

***Results:*** Pathological analysis of the tumors showed that 32 (43.8%) of the patients had an intestinal type of adenocarcinoma, while 39 (53.4%) had diffuse type. Most of the patients (63%) had low-differentiated tumor (G3). Diffuse adenocarcinomas showed a higher positivity for Notch 1, Notch 2, Notch 3 and Notch 4 ($p<0.05$ for all), a lower positivity for DLL1 ($p<0.05$) but not DLL3, and a higher positivity for MMP2 and MMP9 in the tumoral stroma ($p<0.05$ for both), compared with the intestinal type.

***Conclusion:*** This is the first study on Notch signaling with their receptors DLL1 and DLL3, and MMP2 and MMP9 immunoreactivities in human GAC, reporting the correlation between the Lauren type of tumor and aforesaid proteins.

***Keywords:*** Gastric adenocarcinoma, Notch, MMP, DLL

---

***OP-26***

## *Evaluation of gastrointestinal subepithelial lesions followed by endoscopic ultrasonography (EUS); single center experience*

Gizem Korkut[1], Göksel Bengi[2], Müjde Soytürk[2]

*[1]Department of Internal Medicine, Dokuz Eylül University School of Medicine, İzmir, Turkey*
*[2]Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

***Background/Aims:*** Diagnosis and management of gastrointestinal subepithelial lesions is often difficult for the clinician, therefore, for differential diagnosis; Evaluation of pathology data is important with EUS, EUS-FNAB. The aim of this study is; To investigate the contribution of endosonographic and pathological examinations of gastrointestinal subepithelial lesions to the diagnosis.

***Materials and Methods:*** Patients aged 18 years and older who underwent endoscopic USG for suspected subepithelial lesion after endoscopy or abdominal imaging for any reason between March 2009 and December 2017 at the Department of Gastroenterology at Dokuz Eylül University Medical Faculty The demographic characteristics of the patients, radiological or EUS appearance reports of subepithelial lesions, cytopathologic diagnosis of patients who underwent EUS-FNAB/endoscopic biopsy, surgical operation type and surgical pathology results of patients operated for subepithelial lesion were analyzed retrospectively.

***Results:*** In 170 patients who underwent EUS due to gastrointestinal subepithelial lesion, 87 (51.2%) were leiomyoma, 32 (18.8%) were GIST, 27 (15.9%) were lipoma, 13 (7.6%) were ectopic pancreas, 10 (5.8%) neuroendocrine tumor, 1 (0.6%).The most common site of subepithelial lesions is the stomach with 67.1%, and the most common source is muscularis propriqued (47.1%). When evaluated with patients with pathological sampling, 71.1% of patients were diagnosed with EUS. GISTs were defined as 94.4%, leimyomas 81.8%, and neuroendocrine tumors 75% accurate according to the definitive diagnostic method pathology. Endoscopic and/or CT imaging were performed in 41.1% of 170 patients with subepithelial lesions. The mean size of the lesions was 1.15±0.6 cm for the patients who were followed-up for surgery, polypectomy and non-EMR, and their final size was 1.2±0.6 cm ($p<0.05$). Of the 13 lesions showing size increase, 9 were leiomyomas. (69.2%). Recurrence was found in one patient who underwent endoscopic mucosal resection, polypectomy, and only one patient underwent EMR. The most common criteria for the diagnosis of GIST were the lesion and cystic space above 3 cm, the irregular border was less visible, and the selectivity of the ulceration and necrotic focus was 100%. In patients with multiple criteria, cystic space and calcification, lesion and heterogeneity of more than 3cm were selectively selected as 100%. In patients who were operated and risk scoring, high risk patients had more than 3 cm of cystic space and cystic space and calcification were present. There was no recurrence in the mean 6.7±1.5 months of endoscopic/EUS and CT follow-up of GIST patients who were operated and followed up regularly.

***Conclusion:*** As a result; In the diagnosis of subepithelial lesions, EUS and EUS-FNAB are the methods with the highest diagnostic sensitivity in terms of pre-diagnosis and prediction of malignancy. For the diagnosis of GIST, the lesion should be more than 3 cm, have irregular border, include calcification, echogenic focal and cystic space, extraluminal extension, ulcers or necrotic focus and lymph node involvement. Although the common lesions are more than 3cm lesion and cystic space, the irregular border, ulceration and necrotic focus are less frequent and their selectivity is 100%.
The patients with high risk of GIST patients had a lesion above 3 cm, cystic space and calcification.

***Keywords:*** Gastrointestinal subepithelial lesions, gastrointestinal stromal tumors, endoscopic ultrasound

---

***OP-27***

## *Prospective study showing the correlation between the severity of hp gastritis and pre-neoplastic lesions in a moroccan population*

**Sara Jamal, Hassan Seddik, Khaoula Loubaris, Ilham El Koti, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology II of The Military Training Hospital Mohammed V of Rabat Morocco, Morocco*

***Background/Aims:*** Helicobacter pylori (Hp) is a pathogenic bacterium that contributes to an inflammatory reaction of the gastric mucosa. The extent and severity of gastric mucosal inflammation, as well as the occurrence of pre-neoplastic lesions (atrophy and intestinal metaplasia), depend on a number of factors that are related to the bacterium, host, and environmental factors. The aim of this work is to study the gastric lesions associated with Hp infection, and to determine the relationship between bacterial density and the appearance of gastric histological lesions.

***Materials and Methods:*** We performed a single-centric prospective study from March 2014 and March 2019. We included 406 patients who benefited from high endoscopy and who had Hp infection documented on a histological study of gastric biopsies.

***Results:*** The average age of patients was 43.9 years (range, 15 to 87 years). The sex ratio (H/F) was 1.23. Chronic smoking was found in 17.9% of cases. The frequency of antritis and moderate to severe chronic funditis was 78.5% and 40.5% respectively. Moderate to severe activity was noted in 48.5% at the antrum in 21% at the fundus. The incidence of gastric atrophy and intestinal metaplasia was 12.7% and 7.2%, respectively. The density of HP was higher in the antrum than in the fundus (67.2% vs. 26.8% respectively). In univariate analysis, only antral and fundic gastritis activity was significantly associated with bacterial density (OR: 4.3, 95% CI (2.7-6.8) p<0.001, OR: 5.9. 95% CI (3.5-9.9) p<0.001 respectively).

***Conclusion:*** In our study the density of Helicobacter pylori significantly influences the activity of gastritis. We found no correlation between bacterial density and gastric pre-neoplastic lesions. Other studies with large case series including other factors, including the genetic profile of Helicobacter pylori, are needed.

***Keywords:*** Helicobacter pylori, severity, gastritis, density, pre-neoplastic lesions

---

***OP-28***

## *Association of notch signal pathways and target proteins, and matrix metalloproteinases with progression, ınvasion and metastasis of gastric adenocarcinoma tumors*

**Adem Akcakaya[1], Elif Yaprak Saraç[2], Mustafa Hasbahçeci[1], Fatma Betül Akçakaya[3], Nurcan Ünver[4], Ganime Çoban[5], Burcu Gül[5], Tuğba Kotil[2], İlkay Özdemir[2], Seyhun Solakoğlu[2]**

*[1]Department of General Surgery, Bezmialem Vakif University School of Medicine, İstanbul, Turkey*
*[2]Department of Histology and Embryology, İstanbul University İstanbul School of Medicine, İstanbul, Turkey*
*[3]Bezmialem Vakif University School of Medicine, İstanbul, Turkey*
*[4]Department of Pathology, Yedikule Chest Diseases and Thoracic Surgery Training and Research Hospital, İstanbul, Turkey*
*[5]Department of Pathology, Bezmialem Vakif University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Most components of Notch signaling are strongly expressed at different levels in gastric carcinoma tissue samples and are associated with a considerable number of clinical parameters. This study was to investigate the role of Notch signaling with its receptors and the expression of matrix metalloproteinases (MMP2 and MMP9) in the metastasis and invasion of GAC.

***Materials and Methods:*** A total number of 77 patients undergoing total/subtotal gastrectomy for GAC were included in the study, and followed up postoperatively for five years. Their postoperative histopathological findings, clinical course, metastatic status, and mortality rates were recorded. The expressions of four Notch receptors (Notch1, Notch2, Notch3, Notch4), two Delta/Serrate Ligand domain (DSL) ligands DLL1 and DLL3, and potent downstream targets MMP2 and MMP9 were evaluated by immunohistochemistry (IHC) and correlated with clinical and pathological findings.

***Results:*** Seventy-three out of 77 patients completed the follow-ups. Most of patients had a tumor located in gastric antrum with a mean size of 6.15±3.47 cm. 54.8% of them had a metastasis, 57.5% had a morbidity, 47.9% was re-hospitalized frequently due to a post-operative complication, and two of the patients died in the first post-operative year. The immunoreactivities of Notch1, Notch2, Notch3, Notch4 elevated with increasing depth of invasion and lymph node metastasis, especially in T4 stage (p<0.0001), while DLL1 and DLL3 decreased in T4 stage (p<0.0001). Only Notch4 increased significantly in the tumors with known distant metastasis while only DLL1 decreased in those tumors (p<0.05). MMP2 and MMP9 reactivities were highest in stroma of tumors in T4 (p<0.0001) and N3 stage with a distant metastasis (p<0.05).

***Conclusion:*** This is the first follow-up study on Notch signaling with their receptors DLL1 and DLL3, and MMP2 and MMP9 immunoreactivities in human GAC. Our preliminary findings suggest increased expression of Notch pathway and MMPs might be involved in the progression, migration and invasion to the submucosa of gastric wall, to the lymph nodes and even in the distant metastasis of the tumoral cells.

***Keywords:*** Gastrectomy, gastric adenocarcinoma, Notch, MMP, DLL

***OP-29***

## *Tenofovir for preventing progression of chronic hepatitis B ın patients with minimally raised aminotransferase (TORCH-B): A multicenter randomized double-blind placebo-controlled trial*

**Yao-Chun Hsu[1], Chi-Yi Chen[3], I-Wei Chang[4], Chi-Yang Chang[2], Chun-Ying Wu[6], Teng-Yu Lee[7], Ming-Shiang Wu[8], Ming-Jong Bair[9], Jyh-Jou Chen[10], Chieh-Chang Chen[8], Cheng-Hao Tseng[11], Chi-Ming Tai[1], Wen-Hui Ku[12], Lein-Ray Mo[13], Jaw-Town Lin[14]**

*[1]E-Da Hospital/I-Shou University, Kaohsiung, Taiwan*
*[2]Fu-Jen Catholic University Hospital, New Taipei, Taiwan*
*[3]Ditmanson Medical Foundation Chia-Yi Christian Hospital, Chia-Yi, Taiwan*
*[4]Taipei Medical University, Taipei, Taiwan*
*[5]Taipei Veterans General Hospital, Taipei, Taiwan*
*[6]National Yang-Ming University, Taipei, Taiwan*
*[7]Taichung Veterans General Hospital, Taichung, Taiwan*
*[8]National Taiwan University Hospital, Taipei, Taiwan*
*[9]Taitung Mackay Hospital, Taiwan*
*[10]Chi-Mei Medical Center, Tainan, Taiwan*
*[11]E-Da Cancer Hospital, I-Shou University, Kaohsiung, Taiwan*
*[12]Taipei Institute of Pathology, Taipei, Taiwan*
*[13]Tainan Municipal Hospital, Tainan, Taiwan*
*[14]China Medical University Hospital, Taichung, Taiwan*

***Background/Aims:*** Chronic hepatitis B (CHB) is the leading cause of liver-related morbidity and mortality worldwide. Antiviral therapy is currently recommended for patients with CHB at advanced disease status. Whether treatment can prevent disease progression in patients with minimally raised alanine aminotransferase (ALT) is unclear.

***Materials and Methods:*** In this multicentre, double-blind, placebo-controlled trial, we randomly assigned CHB patients without liver cirrhosis, who presented with viremia above 2,000 IU/mL and ALT elevation between 1~2 folds the upper limit of normal, to receive tenofovir disoproxil fumarate (TDF) or matching placebo for 3 years. The primary outcomes were histological deterioration (≥2-point increase in Knodell necroinflammatory score or any worsening of fibrosis) and fibrosis progression (any increase in Ishak scale). We also explored virological, biochemical, serological outcomes and adverse events.

***Results:*** From January 2012 to November 2015, 79 and 81 patients were randomized to TDF and placebo, respectively. After 3-year treatment, 146 patients (n=73 in each group) completed the trial with paired liver biopsy. Histological deterioration occurred in 31.5% (n=23) and 57.5% (n=42) in the TDF and placebo group, respectively (p=0.03). The relative risk of TDF for histological deterioration was 0.55 (95% CI, 0.37~0.81). Liver fibrosis progressed in 26.0% (n=19) and 46.6% (n=34) in the TDF and placebo group, respectively (p=0.02). The relative risk for fibrosis progression was 0.56 (95% CI, 0.35~0.88). TDF achieved higher rates of viral and biochemical remission but the two groups were similar in serological outcomes. More patients in the placebo group (16.1% vs. 2.5%, p=0.005) experienced hepatitis events that required rescue therapy.

***Conclusion:*** Antiviral therapy prevents histopathological progression in non-cirrhotic CHB patients who present with minimally raised ALT and significant viremia.

***Keywords:*** HBV, TDF, nucleos(t)ide analogue, oral antiviral therapy, TORCH-B

**OP-30**

## *Efficacy and safety of sofosbuvir based antiviral therapy for chronic hepatitis c ınfection ın patients with advanced chronic kidney disease*

**Ahmad Babar, Shahid Rasool**

*Madina Teaching Hospital, Punjab, Pakistan*

***Background/Aims:*** The chronic Hepatitis C infection in patients with chronic kidney disease not only accelerates the renal deterioration but also adversely effects morbidity and mortality in patients on hemodialysis and renal transplant. In advanced CKD i.e G4-G5 and G5D (on dialysis) the selection of DAA depends upon degree of renal damage and Genotype of HCV infection. The aim of this study was to evaluate the efficacy and adverse effect profile of Sofosbuvir based DAA in patients with advanced CKD.

***Materials and Methods:*** It is a Quasi Experimental study, conducted from January 2016 to June 2018. Chronic hepatitis C patients with or without cirrhosis having advance CKD (eGFR<30 ml/min per 1.73 $m^2$) and/or on dialysis were enrolled. End points were documentation of SVR 12 and adverse effects. Only Sofosbuvir based regimens were used with only dose modification for Ribavirin was done according to the tolerance of the patients.

***Results:*** A total of 86 patients with median age 53 years, 37 patients were on maintenance dialysis and 49 were not on dialysis with eGFR<30 ml/min per 1.73$m^2$. Adverse effect profile was as follows insomnia 14%, headache 11% and anemia 7%. Mean eGFR and creatinine before and after treatment remained the same. Virological response was checked at 4 weeks after start of therapy, at the end of therapy (92.68%) and at 12 weeks after therapy (90.24%). Only 2 patients relapsed both were on dialysis thrice weekly.

***Conclusion:*** In conclusion, we state that all Sofosbuvir based regimens used for the treatment of chronic hepatitis C in patients with end stage renal disease are effective as well as have low adverse effect profile making them well tolerated. A close follow up in such patients is advised especially to monitor hemoglobin levels and renal functions.

***Keywords:*** Sofosbuvir, hepatitis C, chronic renal failure

***OP-31***

## *Validation and comparison of AARC score in predicting mortality among patients with ACLF due to hepatitis E in Asia Pacific Region*

**Amna Subhan Butt[1], Saeed Hamid Ashok K Choudhury[2], Wasim Jafri[1], Y K Chawla[3], Sunil Taneja[3], Zaigham Abbass[4], Akash Shukla[5], Mamun Al Mahtab[6], Md Fazal Karim[7], C E Eapen[8], Asish Goel[8], Hasmik Ghaziniyan[9], P N Rao[10], Manoj K Sahu[11], Samir Shah[12], Chetan R Kalal[12], Harshad Devarbhavi[13], S S Tan[14], Diana A Payawal[15], Priyanka Jain[2], Irene Paulson[2], S K Sarin[2]**

*[1]Aga Khan University Hospital, Karachi, Pakistan*
*[2]2. Institute of Liver and Biliary Sciences, New Delhi, India*
*[3]Pgimer, Chandigarh, India*

[4]Ziauddin University Hospital, Karachi, Pakistan
[5]Kem Hospital and Seth Gsmc, Mumbai, India
[6]Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh
[7]Sir Salimullah Medical College, Mitford Hospital, Bangladesh
[8]Christian Medical College, Vellore, India
[9]Nork Clinical Hospital of Infectious Disease, Armenia
[10]Asian Institute of Gastroenterology, Hyderabad, India
[11]Ims &Sum Hospital, Odisa, India
[12]Global Hospital, Mumbai, India
[13]St John Medical College, Bangalore, India
[14]Department of Hepatology, Hospital Selayang, Bata Caves, Selangor, Malaysia
[15]Cardinal Santos Medical Center, West San Juan City, Metro Manila, Philippines

***Background/Aims:*** Acute-on-chronic liver failure (ACLF) is a distinct entity, associated with high morbidity and mortality. Hepatitis E (HEV) is one of the leading causes of ACLF in Asia. Inclusion of smaller number of HEV related ACLF patients, differences in criteria to define ACLF and absence of validation studies questions the application of existing prognostic models for HEV related ACLF. The AARC-ACLF score has been developed using largest data base of 26 Asian countries and found superior to the existing prediction models. It can reliably predict the need for interventions, such as liver transplant, within the first week. However, AARC score has not been validated for HEV related ACLF. Hence, we aim to validate and compare the AARC score in predicting 30, 90 days mortality among patients with ACLF due to hepatitis E.

***Materials and Methods:*** APASL-ACLF research consortium (AARC), consisting of 26 tertiary centers across Asia-Pacific regions, maintains an online database for patients diagnosed to have ACLF according to APASL criteria. All patients who had ACLF with acute hepatitis E were reviewed for the current study. The AARC score was validated and compared it with existing prognostic models AUROC.

***Results:*** Out of 2897 patients with ACLF 230 (7.9%) had acute deterioration due to HEV. Mean age was 48.29±13.50 years and 83.9% were male. The most common cause of chronic liver disease was alcohol (26.5%) followed by cryptogenic cirrhosis (25.7%) and NASH (25.7%). Overall 62.2% survived & liver transplantation was done in 4.3% cases. Higher proportion of HE, AKI, organ failure, higher level of creatinine, bilirubin, INR, CTP, MELD, MELD-Na, SOFA, CILF-SOFA, AARC scores were observed among non-survivors as compared to survivors (Table 1). While validating AARC score to predict mortality in HEV related ACLF, The Hosmer–Lemeshow test showed good degree of fit. When we compared AARC score with various prognostic models, AARC score, MELD were found equivalent (AUROC 0.72) but superior to CTP, SOFA, CLIF SOFA, and APACHEE II predicting 30 days mortality (Figure 1). Similar trend was observed while predicting 90 days mortality.

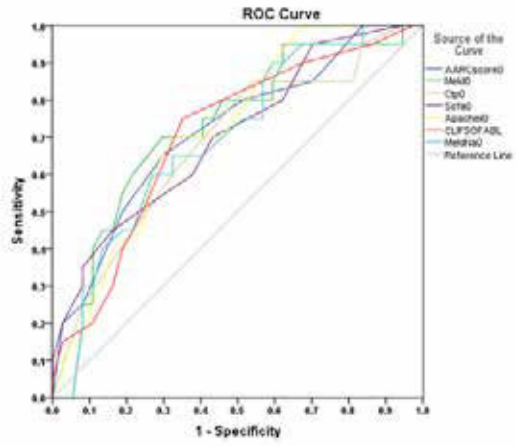
***Conclusion:*** The AARC score has been found equivalent to MELD score but superior to MELD-NA, CTP, SOFA, CLIF-SOFA and APACHEE predicting 30 and 90 days mortality in patients with HEV related ACLF in Asia pacific region. However, considering AUC 0.72 still there is a room to develop a prognostic model with higher accuracy for HEV-ACLF patients.

***Keywords:*** ACLF, mortality, AARC score

**Table 1.** Comparison of survivors and non-survivors with ACLF due to HEV

| | Survivors(n=143) | Non-Survivors(n=87) | p value |
|---|---|---|---|
| Age (Years) | 48.5±13.2 | 47.8±14.0 | 0.69 |
| Gender | | | 0.46 |
| Male | 118(82.5) | 75(86.2) | |
| Female | 25(17.5) | 12(13.8) | |
| Ascites | | | 0.94 |
| Yes | 115(81.6) | 69(81.2) | |
| No | 26(18.4) | 16(18.8) | |

| | | | |
|---|---|---|---|
| HEathy | | | <0.001 |
| Yes | 44(31.2) | 50(59.5) | |
| No | 97(68.8) | 34(40.5) | |
| Sepsis | | | 0.18 |
| Yes | 19(15.4) | 16(23.2) | |
| No | 104(84.6) | 53(76.8) | |
| Variceal bleeding | | | 0.69 |
| Yes | 18(66.7) | 13(72.2) | |
| No | 9(33.3) | 5(27.8) | |
| AKI: | | | 0.007 |
| Yes | 18(12.9) | 23(27.1) | |
| No | 122(87.1) | 62(72.9) | |
| Organ Failure | | | 0.01 |
| 0 | 12(8.4) | 5(5.7) | |
| 1-2 | 116(81.1) | 60(69) | |
| 3-5 | 15(10.5) | 22(25.3) | |
| HR/minutes | 86.1±13.5 | 88.3±16.3 | 0.29 |
| MAP | 84.5±10.0 | 84.3±13.5 | 0.93 |
| RR/minutes | 20.7±2.9 | 20.4±3.5 | 0.46 |
| Hb (gm/dl) | 11.2±2.1 | 10.9±2.3 | 0.30 |
| WBC | 11.8±6.5 | 13.7±11.0 | 0.13 |
| Platelets | 174.0±81.5 | 162.5±120.4 | |
| Na (meq/dl) | 131.3±6.1 | 130.2±7.7 | 0.29 |
| K (meq/dl) | 4.0±0.85 | 3.9±0.92 | 0.79 |
| Cr (mg/dl) {median, IQR) | 0.90[0.61-1.34] | 1.2[0.7-2.2] | 0.005 |
| Total bilirubin (mg/dl) | 21.7±9.7 | 26.4±9.6 | <0.001 |
| Albumin | 2.3±0.68 | 2.36±0.57 | 0.82 |
| ALT (IU/ml) {median, IQR) | 83[55-174] | 99[58.2-256.7] | 0.18 |
| Alkaline phosphate (IU/ml) {median, IQR) | 161.3±134.8 | 135.8±113.2 | 0.03 |
| GGT (IU/ml) {median, IQR) | 57[39.5-92] | 51[32.5-68.2] | 0.053 |
| INR | 2.1±1.1 | 2.6±1.5 | <0.001 |
| PH | 7.1±0.32 | 7.15±0.36 | 0.55 |
| PCO2 | 32.3±7.9 | 31.5±8.4 | 0.56 |
| CTP | 11.3±1.4 | 12.0±1.4 | 0.001 |
| MELD | 26.5±6.6 | 31.0±6.1 | <0.001 |
| MELD-Na | 29.4±5.7 | 33.2±5.0 | <0.001 |
| SOFA | 8.1±2.5 | 10.1±3.1 | 0.003 |
| APACHEE II | 14.5±5.6 | 18.4±7.1 | 0.01 |
| CLIF-SOFA | 11.0±2.6 | 12.2±2.5 | 0.02 |
| GAHSBL | 9.3±1.3 | 9.8±1.3 | 0.10 |
| AARC score | 9.0±1.8 | 10.8±2.0 | <0.001 |




| | AUROC [95% CI] | cut | sensitivity | specificity | PPV+ | PPV- |
|---|---|---|---|---|---|---|
| AARC score | 0.72[0.57-0.85] | 10.5 | 70.8 | 78.1 | 52.0 | 88.6 |
| MELD | 0.72[0.58-0.86] | 31.9 | 61.5 | 83.1 | 53.3 | 87.5 |
| CTP | 0.68[0.53-0.83] | 12.5 | 46.1 | 77.7 | 40.6 | 81.5 |
| SOFA | 0.70[0.56-0.84] | 9.5 | 62.9 | 65.5 | 45.9 | 79.1 |
| CLIF SOFA | 0.70[0.56-0.84] | 11.5 | 57.1 | 70 | 52.6 | 73.6 |
| APACHEE II | 0.71[0.58-0.85] | 15.5 | 73.9 | 68.8 | 54.8 | 83.7 |
| MELD Na | 0.69[0.56-0.83] | 34 | 55.7 | 81.8 | 50 | 85.06 |

**Figure 1.** Comparison of various prognostic models for predicting 30 days mortality in patients with ACLF triggered by acute hepatitis E infection

**OP-32**

## *IL-2, IL-15 and stem cell factor enhance cytotoxicity of CD3-CD56+CD16+ NK cells against human hepatocellular carcinoma cell lines*

**Quan Lu, Hao Chen, Weihong Sha, Qiyi Wang**

*Guangdong Provincial Peoples Hospital and Guangdong Academy of Medical Sciences, Guangdong, China*

***Background/Aims:*** Specific-type natural killer cells play a vital role in anti-tumor by regulating the immune system. To investigate the effects of IL-2, IL-15 and stem cell factor on the efficiency of expansion, expression of NKG2D and the cytotoxicity of CD3-CD56+CD16+ NK cells against human hepatocellular carcinoma cell lines.

***Materials and Methods:*** The CD3-CD56+CD16+ NK cells purified by the sorting method of magnetic microbeads activated cells sorting were expanded in the presence of IL-2 or IL-15 or IL-2/IL-15/SCF with or without anti-NKG2D monoclonal antibody. The efficiency of expansion, the expression of NKG2D and the cytotoxicity of CD3-CD56+CD16+ NK cells against HepG2, SMMC-7721 were determined using trypan blue staining, flow cytometry and CCK-8 assay, respectively.

***Results:*** The efficiency of expansion, the expression of NKG2D and the cytotoxicity of CD3-CD56+CD16+ NK cells treated with IL-2/IL-15/stem cell factor were significantly increased than those in other groups. Most interestingly, the cytotoxic effects of CD3-CD56+CD16+ NK cells on HepG2 cells were significantly reduced by the pretreatment with anti-NKG2D monoclonal antibody. However, the treatment with the same antibody had little influence on the cytotoxicity of CD3-CD56+CD16+ NK cells against SMMC-7721 cells.

***Conclusion:*** IL-2/IL-15/stem cell factor enhances the efficiency of expansion, the expression of NKG2D and the cytotoxicity of CD3-CD56+CD16+ NK cells against human hepatocellular carcinoma cell lines. NKG2D plays an important role in mediating the cytotoxicity of NK cells on specific types of tumor cells.

***Keywords:*** Killer cells, natural, liver neoplasms, receptor, NKG2D

# POSTER PRESENTATIONS

***PP-1***

## *Minimally invasive management of complications of ERCP and stent application for bile duct injury after cholecystectomy*

**Ahmet Gürkan Uzun[1], Halit Batuhan Demir[1], Fatih Tekin[2], Ahmet Ömer Özütemiz[2], Ömer Vedat Ünalp[1], Alper Uğuz[1]**

*[1]Department of General Surgery, Ege University School of Medicine, İzmir, Turkey*
*[2]Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*

***Background/Aims:*** The most common type of bile duct injury types after cholecystectomy is the leakage of cystic stump. Ercp (endoscopic retrograde cholangiopancreatography) and sphincterotomy and stent placement of bile ducts in this group of patients are the first and best treatment methods. However, treatment of patients with biliary stent-related duodenum perforation is difficult. Our aim is to report cases that have developed and re-treated endoscopically in our clinic**.**

***Materials and Methods:*** In our study, patients who were followed up due to bile duct injury, who were strasberg type and who underwent biliary stents with ercp were evaluated. In the follow-up, two cases of biliary plastic stent-induced duodenum perforation and endoscopically treated were described. Treatment management is retrospective.

***Results:*** In october and november 2018, two patients who underwent laparoscopic cholecystectomy for symptomatic cholelithiasis in external centre were referred to our hospital. On computerized tomography (ct) scans of the patients performed at our clinic, bilioma has been detected in cholecystectomy bed. Percutaneous drainage catheter was placed to drain the bilioma. Magnetic resonance colangiopankreatography (mrcp) of the patient detected strasberg type of a leak, an ercp and sphincterotomy and biliary plastic stent placement was performed. After the procedure, the first week for both cases went without problems. During the second week one patient developed fever and the other had an abdominal pain. Computed tomography was performed for both patients and the ct scan revealed that the tip of stent had perforated the wall of the joint point of the 2. And 3. Part of the duodenum. In a case with abdominal pain the stent migrated intraperitoneal, in a case with fever the stent migrated retroperitoneal. Both patients underwent ercp during which perforation was closed with an endoclipper and placement of nasojejunal enteral feeding tube was applied. We didn't place drain in patient with retroperitoneal absces. In a patient with the abdominal pain, pain relieve was reached in 24 hours. Nazoenteral nutrition was applied in both cases. Empiric antibiotherapy was applied. At the end of two weeks of follow-up, oral nutrition started gradually. Control ct scan was performed. Patients were discharged with cure after approximately 1 month of of follow up.

***Conclusion:*** Good clinical evaluation and screening imaging is important in the management of patients with strasberg type a bile duct injury after cholecystectomy that underwent sphincterotomy and plastic stent via ercp that was complicated with duodenum perforation. Endoscopic therapy is possible in patients with correlated clinical and radiological findings. Patients can be successfully treated without laparotomy.

***Keywords:*** ERCP, stent, perforation

---

***PP-2***

## *Combined therapy with mesenchymal stromal cells and vedolizumab contributes to deep remission in ulcerative colitis*

**Oleg Knyazev, Anna Kagramanova, Albina Lishchinskaya, Karina Noskova, Asfold Parfenov**

*Moscow Clinical Research Center, Moscow, Russia*

***Background/Aims:*** To compare the level of markers of inflammation-C-reactive protein (CRP), the Geboes Score (GS) and faecal calprotectin (FCP)-in patients with ulcerative colitis (UC) receiving cell therapy mesenchymal stromal cells (MSC), anti-integrin therapy with vedolizumab (VDB), and combined therapy of bone marrow MSC and VDB.

***Materials and Methods:*** 45 patients with total of UC moderate severity were divided in three groups. The 1st group (n=15) received anti-inflammatory therapy of MSC, the second group received VDB, the third group received the MSC+VDB. The

level of CRP, PCF and is was assessed 26 weeks after therapy. The baseline CRP was 24.6±1.8; 25.5±2.0 and 24.8±2.1 mg/l; baseline GS in the groups was 4.6±0.4; 4.35±0.25 and 4.5±0.3 points; initial level of the FCP made 1090±88.8; 1000±83.9 and 1010±120.5 μg/g, respectively.

***Results:*** After 26 weeks in the first group of patients, the level of CPP was 7.8±2.1 mg/l, in the second group 7.4±1.3 mg/l, in the third group 7.5±1.0 mg/l (p>0.05). After 26 weeks from the start of therapy in the first group of patients, the level of FCP was 98.8±9.3 μg/g, in the second group 90.6±7.5 μg/g, in the third group 82.8±6.3 μg/g (p <0.05). After 26 weeks from the start of therapy in the first group of patients with GS was 0.7±0.1 points, in the second group 0.65±0.1 points, in the third-0.35±0.06 points (p<0.001).

***Conclusion:*** Combined mesenchymal stromal cells and anti-integrin therapy with vedolizumab contributes to a more pronounced reduction in the degree of inflammation of the intestinal mucosa.

***Keywords:*** Mesenchymal stromal cells, vedolizumab, ulcerative colitis

***PP-3***

## *Preliminary study: Application of artificial intelligence algorithms in endoscopic diagnosis of adult celiac patients*

**Munkhtsetseg Banzragch Yağcı[1], Manarbek Saken[2], Orhan Tarçın[3], Müge Yılmaz[1], Naile Aşık[1], Nuket Hayıroğlu[1], Nejat Yumuşak[2]**

*[1]Darıca Farabi Research Hospital, Kocaeli, Turkey*
*[2]Sakarya University, Sakarya, Turkey*
*[3]Endoscopy Akasya, İstanbul, Turkey*

***Background/Aims:*** Celiac disease (CD) is a life-long gluten-sensitive autoimmune disease of the small intestine affecting genetically susceptible individuals worldwide. CD individuals may present gastrointestinal symptoms, extraintestinal symptoms or no signs of symptoms. Once thought to be rare, CD affects approximately 0.7% (95% confidence interval (CI), 0.5%–0.9%) of the population and appears to be associated with increased mortality along with substantial morbidity, much of which is preventable or reversible with the gluten-free diet (GFD). The genetic predisposition is related to HLA (human leucocyte antigen) class II genes: most of CD patients are HLA-DQ2 positive, and the remaining patients are usually HLA-DQ8 positive. Environmental, genetic, and immunologic factors are important in the pathogenesis of CD. In patients with celiac disease, as a result of an immune reaction to dietary gluten, the mucosa becomes inflamed and villi become shortened (villous atrophy), and malabsorption of nutrients occurs. Histological serology confirmation using biopsies performed during upper endoscopy is still the gold standard in the diagnosis of CD. However, the symptoms of CD are variable and therefore making an accurate diagnosis is relatively difficult. This results in a high rate of misdiagnosis. More than half of all patients are unaware of undiagnosed disease. In order to increase the rate of diagnosis and treatment, there is a need for an easy-to-perform method that provides faster results with less cost other than biopsy. Therefore, a computer-aided detection (CAD) system has been proposed to overcome the difficulties. CAD support is an option that emerges especially in medicine and endoscopy. Such systems can potentially decrease costs and manpower while simultaneously improving the safety of the procedure. The nature of the data provided by endoscopy requires CAD systems for visual analysis. The main focus of research in the literature has focused on methods for the visual classification of duodenal tissue. As a result of these investigations, we propose a hybrid intelligent machine learning technique for CAD system of CD with endoscopic images.

***Materials and Methods:*** The analysis of intestinal villi, which have dimensions on the order of approximately one millimeter, is currently at the limit of resolution for both standard and videocapsule imaging systems. Thus, Marsh classifies the classification scheme into two classes: one class Marsh 0–2 (no villous atrophy detected-normal), while the other class includes Marsh 3a–c and Marsh 4 (villous atrophy detected-celiac disease). Figure 1 shows two examples of normal and damaged duodenal mucosa. The image datasets utilized for the experiments contain images of the duodenal bulb and the pars descendens taken during esophagogastroduodenoscopy (EGD) at the Kocaeli Darıca Farabi Training and Research Hospital using adult

gastroscopes (Fujinon EG-530WR) without magnification. The original image resolution is 1280 x 1024 pixels. Accordingly, we chose to separate the images into two distinct sets. Although it is possible to differentiate between different stages of the disease, we aim to distinguish the images of the patients (Marsh-3a,b,c) and non-disease (Marsh-0), since these two class cases would be most appropriate in practice. Our experiments are based on training and evaluation data consisting of 123 (105 Marsh-0 and 18 Marsh-3) and 42 (35 Marsh-0 and 7 Marsh-3) images of 60 patients. In this study, different feature extractors were used to obtain characteristic features to characterize the two classes. The proposed CAD algorithm is shown in figure 2. The proposed technique is based on the following computational methods: (i) Spatial context based optimal multilevel energy curve thresholding for image segmentation. (ii) Then, the relative discrete wavelet transform (DWT) coefficients of the images are subdivided by applying the DWT method and the images are transformed from the spatial domain to the frequency domain. (iii) Various feature extraction methods are employed to extract important features from decomposed coefficients and they are evaluated according to the classification rate. In the feature extraction stage of the study, Local Binary Patterns (LBP), Histogram of Oriented Gradient (HOG) and Speeded-Up Robust Features (SURF) algorithms were employed. (iv) Next, nature-inspired algorithms, the optimization technique, were applied to select an optimal set of features for classifying feature vectors. (v) Finally, a cross-validation strategy (10-fold and leave-one-out) was used to confirm the detection capability of the proposed technique.

***Results:*** Initial endoscopic images were provided as an input to the system for diagnosis. After the pre-processing were completed, the images were segmented in the second step of the proposed system, and in the next step, the features of the DWT+SURF methods were extracted from these segmented images by the combination. In the fourth step, the excess of feature size was reduced, and then the attributes that were useful from there were selected and moved to the classification stage. The feature is used independently for classification as normal and celiac disease image. In MATLAB 2018a environment, the feature vector we obtained from the evaluation data-set on various classifier methods such as Decision Trees, Support Vector Machine and Ensemble was classified as celiac and normal and performances (ACC, SEN and SPE) were recorded and shown in table 1. It can be noted that the Fine Tree and Ensemble RUSBoosted Tree methods with the 10-fold and cross-validation strategy showed the highest ACC of 88.1% and 92.86% respectively.

***Conclusion:*** Research in the field of automated diagnosis of CD, which focuses on computer aided systems has started in 2008. Since then, various feature extraction and classification methods related to the subject and endoscopic celiac disease performances have been reviewed and more than 50 publications have been published on the subject. According to the published literature, the most significant impact on the accuracy of the automatic diagnosis is that it is within the proposed image representations. In order to create a CAD system, it is important to integrate the various image processing techniques such as segmentation, feature extraction, selection and classification. Because of the small number of patients, the specificity rate decreases and we need more cases to increase it.

***Keywords:*** Celiac disease, computer aided diagnosis systems, medical image processing, mucosal patterns, machine learning, feature extractions and classification

***Table 1.*** Performances of various classifiers using the 10-fold cross-validation strategy.

| Classifiers | Parameters | $P_{TP}$ | $P_{TN}$ | $P_{FP}$ | $P_{FN}$ | ACC (%) | SEN (%) | SPE (%) |
|---|---|---|---|---|---|---|---|---|
| Fine Tree | | 5 | 34 | 2 | 1 | 92.86 | 83.33 | 94.44 |
| Cubic SVM | | 2 | 33 | 5 | 2 | 83.33 | 50 | 86.84 |
| Fine KNN | 1 | 6 | 28 | 1 | 7 | 80.95 | 46.15 | 96.55 |
| Ensemble Subspace KNN | 10 | 6 | 31 | 1 | 4 | 88.1 | 60 | 96.88 |
| Ensemble RUSBoosted Tree | | 5 | 32 | 2 | 3 | 88.1 | 62.5 | 94.12 |

$P_{TP}$: true positive, $P_{TN}$: true negative, $P_{FP}$: false positive, $P_{FN}$: false negative, ACC: Accuracy, SEN: Sensitivity, SPE: Specificity.

***PP-4***

## *Features of nutrition pattern of patients with resistant to therapy SIBO*

**Vladimir Pilipenko, Vasily Isakov**

*Department of Gastroenterology and Hepatology, Research Institute of Nutrition, Moscow*

***Background/Aims:*** Small intestinal bacterial overgrowth $H_2$ (SIBO) treatment with antibiotics is not effective enough and the recurrence rate is high. Long-term dietary patterns can shift the composition of the microbiota. Aim: to analyze the effect of treatment SIBO from the point of view of nutritional pattern differences.

***Materials and Methods:*** SIBO $H_2$ were diagnosed in 79 patients by hydrogen-methane breath test with lactulose. Standard treatment with tilbroquinol 400 mg bid for 10 days. Breath test with lactulose was repeated 2 months after treatment. According to the results, patients were divided into 2 groups: cured and treatment failed. Three-day food diaries were collected from all participants. Diaries data were converted into constituent products by food groups, which were summed by weight per day and compared with the norms of consumption of the pyramid of healthy nutrition for a given caloric intake.

***Results:*** Effect of treatment was reached in 41 patients. In those who had failed treatment the ratio buckwheat/cereals was higher (0.41±0.47 vs 0.14±0.35, p<0.001) and millet/cereals (0.036±0.11 vs 0.007±0.021, p=0.047), poultry/meat products (0.80±0.64 vs 0.54±0.62, p=0.01) and butter/fat products (0.54±0.24 vs 0.39±0.22, p<0.01) and lower consumption of mono-disaccharides (75.2±32.7 vs 95.5±41.5 g/day; p=0.015) and cottage cheese/milk products (0.07±0.08 vs 0.17±0.19, p=0.018, p=0.018). Consumption of fruits and vegetables did not differ.

***Conclusion:*** Nutrition patterns of SIBO $H_2$ patients resistant to therapy and cured patients significantly differed. The obtained data may be used for nutritional support during SIBO treatment and for the prevention of relapses.

***Keywords:*** Lactulose breath test, SIBO, nutrition

---

***PP-5***

## *Endoscopic detection of dysplasia associated with long-standing ulcerative colitis*

**Viktor Veselov, Sergey Skridlevskiy, Olga Arhipova**

*State Scientific Center of Coloproctology, Moscow, Russia*

***Background/Aims:*** Long-standing Ulcerative colitis (UC) patients are well known to carry a higher risk of developing colorectal dysplasia/neoplasia. The aim of the study was to assess the incidence of high-grade dysplasia associated with long-standing UC.

***Materials and Methods:*** A total of 80 patients (median age – 49 years, 44%-men) satisfied to inclusion criteria (total or left-sided lesion, clinical remission, >8 years of disease duration), underwent total white light colonoscopy, NBI colonoscopy, chromoendoscopy, targeting biopsy with histological definition, and grading of dysplasia were enrolled prospectively (November 2017-January 2019). The macroscopic type due to Paris Classification, presence, and grading of dysplasia, localization, size of dysplastic lesions, disease duration was analyzed and compared by Fisher's two-tailed exact test.

***Results:*** The incidence of lesions was 13.75%. Total UC of the colon was more common (71-88.75%$^{total}$/9-11.25%$^{left\ side}$) without the dependence on the incidence of dysplasia (12-16.9%$^{total}$/1-11.11%$^{left\ side}$). All 13 lesions were divided into 4 Groups: 0-I type (4-30.77%)$^{Group1}$, 0-II type (4-30.77%)$^{Group2}$, 0-III type (0-0%)$^{Group3}$, and LST (5-38.46%)$^{Group4}$. Low-grade dysplasia was detected in all cases. The comparative analysis did not reveal the associated type of lesion with a long-standing UC. Analysis of the size of the lesions revealed 2 (50%) lesions > 1 cm$^{Group\ 1}$. The comparative analysis revealed no the association of the

lesion > 1 cm with a long-standing UC (7-53.85%/6-46.15%). The average duration of UC was 16.5 years without affecting the type of lesions, their frequency, and size.

***Conclusion:*** The study with white light colonoscopy, NBI colonoscopy, chromoendoscopy, targeting biopsy with histological definition, and grading of dysplasia shows, that the low-grade dysplasia associated with long-standing UC with the 13.75% frequency of occurrence dysplasia without association with the type of the lesion, total or left side UC, size, and duration of the disease.

***Keywords:*** IBD related dysplasia, low-grade dysplasia, colonoscopy for IBD

---

***PP-6***

## *IGG4-related gastric ulcer: A case-control study*

Yu-Qin He, Xin Fu, Dong-Feng Chen

*Department of Gastroenterology, Da Ping Hospital, Amry Military Medical University, Chongqing, China*

***Background/Aims:*** Immunoglobulin G4-related disease (IgG4-RD) is characterized by a series of multi-organ immune-mediated fibroinflammatory disease, which elevated serum levels of IgG4, increased numbers of tissue IgG4-positive plasma cells and excellent response to prednisone. The most frequent manifestation is autoimmune pancreatitis (AIP), but the disease can affect multiple organs including the gastrointestinal. The histopathology of IgG4-related gastric ulcer has not been well established. The present study reports some rare cases of IgG4-related gastric ulcer, which not combined with other organs. The aim of this study was to evaluate the occurrence and histopathological characteristics of IgG4-related gastric ulcer.

***Materials and Methods:*** In this retrospective study, we evaluate the clinical manifestations, radiological characteristics and histologic presentations of IgG4-related gastric ulcer in our hospital. Four patients diagnosed as IgG4-related gastric ulcer were fulfilled the 2011 revised clinical diagnostic criteria proposed by Japans Pancreas Society. These patients' clinical records were reviewed and analyzed. All tissue samples were immunostained for IgG4 and evaluated for the following characteristic pathologic features of IgG4-RD; maximum number of IgG4+ cells/high power field (HPF); fibrosis.

***Results:*** We identified 4 cases of IgG4-related gastric ulcer. All cases had a history of intermittent upper abdominal pain and melena. The duration of symptoms prior to diagnosis ranged from one to four years. All patients were misdiagnosed as acid-related gastric ulcers and the regular treatment with proton pump inhibitor and hydrotalcite tablets were poor response. Median serum IgG4 was 714 mg/dl (IQR 420-144). Specimens evaluated had been obtained by biopsy (n=4). In IgG4-RD patients, the median number of IgG4+ cells was 92 (IQR 20-210). Furthermore, lymphoplasmacytic infiltrate was not discriminating and storiform fibrosis. The gastroscopy showed the ulcer accompanying with luminal stenosis and the adjacent gastric mucosa accompanying with fibrosis. All patients were treated with corticosteroids and responded well.

***Conclusion:*** We report on 4 patients with IgG4-related gastric ulcer. The histological hallmark is an elevated number of IgG4+ cells. And the ulcer which endoscopic findings overflow of thickening of the ulcer base and clear sector. All patients were poor response for proton pump inhibitor but benefit from corticosteroid treatment.

***Keywords:*** Immunoglobulin G4-related disease, gastric ulcer

---

***PP-7***

## *A new staining method using methionyl-TRNA synthetase antibody for brushing cytology differentiates indeterminate bile duct strictures*

Sung Ill Jang[1], Nam Hoon Kwon[2], Ji Hae Nahm[3], Su Yun Lee[1], Dong Ki Lee[1]

[1]Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, South Korea
[2]Medicinal Bioconvergence Research Center, Seoul National University, South Korea
[3]Department of Pathology, Gangnam Severance Hospital, Yonsei University College of Medicine, South Korea

***Background/Aims:*** Identifying biliary stricture malignancies using endobiliary brushing cytology specimens is important for treatment decision making and prognosis prediction. The sensitivity of brushing cytology specimens based on Papanicolaou (Pap) staining is low, which hampers accurate diagnosis of indeterminate strictures. In this study, we assessed the diagnostic value of immunohistochemical (IHC) and immunofluorescence (IF) staining for methionyl-tRNA synthetase (MRS).

***Materials and Methods:*** Sections of bile duct adenocarcinoma and normal bile duct tissue were obtained from 45 patients who underwent surgery for biliary stricture malignancies. MRS expression levels in the sections were evaluated by IHC staining using an anti-MRS antibody. Endobiliary brushing cytology specimens were obtained during endoscopic retrograde cholangiopancreatography of 80 patients with an extrahepatic biliary stricture, and Pap staining and MRS IF staining were performed on liquid-based cytology slides derived from these specimens.

***Results:*** Using immunohistochemical staining, MRS was detected in the 45 bile duct adenocarcinoma sections but not in the 15 normal bile duct sections. Moreover, mRNA and protein levels of MRS were significantly higher in bile duct adenocarcinoma sections, according to polymerase chain reaction and western blot analyses, respectively. In brushing cytology specimens, the sensitivity, specificity, positive predictive value, negative predictive value, and accuracy were 70.4%, 96.2%, 97.4%, 56.8%, and 78.8%, respectively, for conventional Pap staining, and 98.1%, 96.1%, 98.1%, 96.2%, and 97.5%, respectively, for MRS IF.

***Conclusion:*** The high sensitivity and accuracy of MRS IF staining enables detection of malignancy in patients with biliary stenosis and indeterminate cytology results.

***Keywords:*** Biliary strictures, pancreato-biliary disorders, biliary endoscopy

---

***PP-8***

## *Reatment with N-3 polyunsaturated fatty acids and ursodeoxycholic acid dissolves cholesterol gallstones in mice*

**Sung Ill Jang[1], Sungsoon Fang[2], Su Yeon Lee[1], Joon Mee Kim[3], Dong Ki Lee[1]**

[1]Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, South Korea
[2]Severance Biomedical Science Institute, Bk21 Plus Project For Medical Science, Gangnam Severance Hospital, Yonsei University College of Medicine, South Korea
[3]Department of Pathology, Inha University College of Medicine, South Korea

***Background/Aims:*** The increasing prevalence of cholesterol gallstone disease represents an economic burden on the healthcare system. Ursodeoxycholic acid (UDCA) is the only agent capable of dissolving gallstones. To identify novel therapeutics, we assessed the effects of n-3 polyunsaturated fatty acids (PUFA) in combination with UDCA in a mouse model of cholesterol gallstones.

***Materials and Methods:*** After a lithogenic diet for 8 weeks, the mice were divided into control, UDCA treatment, PUFA treatment, and combination (UDCA + PUFA) treatment groups. The therapeutic agents were administered orally for 12 weeks. Gallstone dissolution, gallbladder wall thickness, mucin gene expression in the gallbladder, and the levels of phospholipids, cholesterol, and bile acids in bile and serum were analyzed. RNA was extracted from the liver for mRNA sequencing and gene expression profiling.

***Results:*** The combination treatment resulted in greater gallstone dissolution compared to the control, and the PUFA and combination treatments reduced the thickness of the gallbladder wall. The expression levels of mucin gene were significantly

lower in the UDCA, PUFA, and combination groups. Transcriptome analyses revealed that combination treatment modulated hepatic lipid metabolism. The PUFA and combination groups showed elevated bile phospholipid and bile acid levels and a lower cholesterol saturation index.

***Conclusion:*** Combination treatment with PUFA and UDCA dissolves cholesterol gallstones in mice by decreasing mucin production, increasing the levels of phospholipids and bile acids in bile, and decreasing cholesterol saturation. Further human-based studies of the therapeutic effects in patients with cholesterol gallstones with the combination of PUFA and UDCA are warranted.

***Keywords:*** Gallstones, fatty acids, omega-3, cholesterol

---

***PP-9***

## *Contrast nephropathy following computed tomography in cirrhotic patients with refractory ascites*

**Irina Girleanu, Anca Trifan, Oana Cristina Petrea, Ana Maria Singeap, Catalin Sfarti, Camelia Cojocariu, Carol Stanciu**

*"Grigore T. Popa" University of Medicine and Pharmacy, Romaina*

***Background/Aims:*** Data regarding incidence and outcome contrast-induced acute kidney injury (CIAK) in cirrhotic patients with refractory ascites are scarce. The aim of this study was to assess the incidence and outcome of CIAK and to identify potential predictors of this complication in cirrhotic patients diagnosed with refractory ascites.

***Materials and Methods:*** A prospective analysis was performed on 126 cirrhotic patients admitted in a tertiary center from January 2017 to December 2017. All the patients had undergo abdominal computed tomography. The diagnosis of refractory ascites was made according to the criteria of the International Ascites Club. CIAK was define asan increased in creatinine concentration of ≥0.5 mg/dl or ≥25% above baseline that occurred 48 to 72 h after CT.

***Results:*** The incidence of CIAK was 5.55% (7 patients). Overall, 3.17% of patients developed an increased in serum creatinine ≥25%, and 2.38% demonstrated a rise in serum creatinine ≥0.5 mg/dl. Two patients (1.58%) died by 30-d follow-up; however, CIAKI was not associated with these outcomes. Hypotension before CT scan (OR 3.8; 95% CI 1.87-8.73, p=0.025), MELD score >25 (OR 4.2; CI 1.15-11.57, p=0.005), spontaneous bacterial peritonitis (OR 3.6; CI 2.49-16.84, p<0.001), and the history of acute kidney injury (OR 10.2; CI 4.25-18.87, p<0.001) were independently associated with CIAK in cirrhotic patients with refractory ascites.

***Conclusion:*** Clinically significant CIAKI following CT is uncommon among cirrhotic patients with refractory ascites, although caution should be taken in patients with high MELD score, arterial hypotension, spontaneous bacterial peritonitis or history on acute kidney injury.

***Keywords:*** Liver cirrhosis, contrast nephropathy, computed tomography

---

***PP-10***

## *Nonselective beta blockers and the risk for portal vein thrombosis in cirrhotic patients*

**Irina Girleanu[1], Anca Trifan[1], Oana Cristina Petrea[1], Camelia Cojocariu[1], Roxana Nemteanu[1], Ana Maria Singeap[1], Andreea Teodorescu[1], Stefan Chiriac[1], Carol Stanciu[1]**

*[1]"Grigore T. Popa" University of Medicine and Pharmacy, Romaina*
*[2]"St. Spiridon" University Hospital, Institute of Gastroenterology and Hepatology, Romaina*

***Background/Aims:*** Nonselective β-blockers (NSBBs) are frequently used to prevent variceal bleeding, and may increase the development of PVT by reducing portal vein inflow velocity. The aim of this study was to we evaluated the risk factors and clinical features of PVT in cirrhotics.

***Materials and Methods:*** We performed a retrospective study in which we included cirrhotic patients admitted in the Institute of Gastroenterology and Hepatology between January 2015 and October 2015 who had received NNBB treatment for at least 1 month previously. Patient evaluation and NNBB treatment were carried out according to the EASL guidelines.

***Results:*** In the study we included 486 cirrhotic patients. Twenty two (4.52%) patients were diagnosed with PVT. PVT was prevalently partial (84%) and asymptomatic (84%). In both groups, HCV was the most frequent cause of cirrhosis and Child-Pugh score C was prevalent. Ascites and esophageal varices were more frequent in the PVT group (p=0.023 and p<0.0001, respectively). There was no significant difference between the PVT group and non-PVT-group regarding the NSBB treatment (p=0.453). PVT was associated with higher prevalence of chronic renal disease (p=0.002), and higher MELD score (p<0.0001). The NSBB treatment is not associated with an increased risk for PVT in cirrhotic patients (OR 1.22, CI 0.533-6.871, p=0.424).

***Conclusion:*** The NSBB is not a risk factor for PVT development in patients with liver cirrhosis. Larger studies should evaluate the risk between variceal bleeding and portal vein thrombosis of using NSBBs, particularly in the prevention of first bleeding

***Keywords:*** Liver cirrhosis, portal vein thrombosis, beta-blockers

---

***PP-11***

## *Leishmaniasis infection in tuberculosis patients from Kala-Azar endemic areas*

**Mf Rahman[1], M Uddin[2], S Banu[1], Mj Alam[1], Mj Uddin[1], Mas Sarkar[1], A Bashar[1], Pn Nath[1], C Sanjoba[1], Mb Rahman[1]**

*[1]Sk Hospital Mymensingh, Bangladesh*
*[2]Hamad General Hospita, Doha, Qatar*

***Background/Aims:*** Co-infection of parasitic disease and pulmonary tuberculosis are increasing public health problem now a days especially in developing countries like Bangladesh. More than 81% of cases and deaths from TB are in developing countries and is aggravated by concurrency with parasitic diseases.

***Materials and Methods:*** This descriptive cross-sectional study was conducted at SK Hospital a part of Mymensingh Medical College Hospital from Jan 2014 to Dec 2016. A total 176 Tuberculosis patients reported from Kala-azar endemic areas were included. All the TB cases were investigated for Kala-azar. Buffy coat was taken from Venous blood and serum for ELISA. All patients' blood were tested with ICT(rK39) for Visceral Leishmaniasis. ICT positive patient's splenic aspiration were examined under microscope with 10x 100 magnification. After that all these cases were tested by ELISA.

***Results:*** 120(68.%) were male, mean age 43 years and 87.49% patients were within 16 to 60 years of age group infected with Tuberculosis. The blood sample of 176 patients were tested with ICT rK39 and 12(7%) patients were found positive for leishmaniasis who suffered from Tuberculosis. In splenic smear test 12(7%) patients' smear were examined of which 11(92%) were positive but by ELISA all 12(100%) were found positive.

***Conclusion:*** Visceral leishmaniasis and tuberculosis co-infection have drawn attention clinically. In both diseases, infection may remain dormant asymptomatic which may be related to immune suppression and lead to active disease. This study has been able to find out leishmaniasis amongst tuberculosis patients from kala-azar endemic areas, giving message to both clinicians and researchers for its management.

***Keywords:*** Visceral leishmaniasis, Kala-azar, Splenic Aspirate

***PP-12***

## *Randomized trial to assess safety and efficacy of personalized isocalorie and lowcalorie diets in non-alcoholic steatohepatitis*

**Armida Sasunova, Sergey Morozov, Vasily Isakov**

*Federal Research Center of Nutrition and Biotechnology, Moscow, Russia*

***Background/Aims:*** To compare safety and efficacy of low versus isocalorie regimens in Russian NASH patients.

***Materials and Methods:*** Food frequency questionnaires (language specific patented program). body composition analysis (InBody 520), resting metabolic rate (Quarck RMR) and daily urine excretion of the nitrogen were used to assess nutritional status and needs for calories and macronutrients in 174 NASH patients (88 men) who signed informed consent. Patients were randomized into two groups: received lowcaloric personalized diet (LCPD, n=58: 1600-1700 kcal/day, protein 94-96 g/day, fat 70-75 g/day, carbohydrates 150-160 g/day) and received isocaloric personalized diet (ICPD, n=116: 2500-2700 kcal/day, protein 95-97 g/day, fat 83-88 g/day, carbohydrates 358-380 g/day). Blood tests and nutritional status were assessed at baseline and after 1.5 months (EOT) of diet. Non-parametric tests of Statistica10 (StatSoft) were used to compare the results.

***Results:*** Studied groups didn't differ by age and sex distribution, BMI and mean resting metabolic rate at baseline. Compliance rate was 53.4% in the LCPD compared to 85.3% in ICPD, $p<0.001$ (hunger, decreased tolerability to physical activity). Lean body weight decrease was greater in LCPD group (Mean±SD):-6.6±0.4 kg vs-1.4±0.6 kg in ICPD, $p<0.05$, though total weight decrease was also greater:-9.3±1.8 kg vs-6.2±1.7 kg accordingly, $p<0.05$). Blood chemistry showed decrease in transaminases in ICPD, which was not achieved in LCPD (table 1).

***Conclusion:*** Isocaloric personalized diet is characterized with higher compliance rate, is safer and allows to achieve reduction of weight predominantly by fat, normalize serum transaminases levels in most of NASH patients.

***Keywords:*** NASH, diet, safety, efficacy

---

***PP-13***

## *Nutritional patterns in Russian NASH patients*

**Armida Sasunova, Sergey Morozov, Valentina Vorobiova, Varuzhan Sarkisyan, Alla Kochetkova, Vasily Isakov**

*Federal Research Center of Nutrition and Biotechnology, Moscow, Russia*

***Background/Aims:*** To assess characteristic features of nutritional patterns in Russian NASH patients.

***Materials and Methods:*** Food frequency questionnaires (language specific patented program), body composition analysis (InBody 520) and rate of resting energy expenditure (Quarck RMR) were used to assess nutritional status of 189 non-alcoholic steatohepatitis patients (84 men), age (M±m) 46.3±12.7 y.o. Nutrients' consumption was analyzed according to the country-specific normative values in accordance to physical activity, sex and age. The diagnosis of NASH was previously confirmed and the absence of alcohol abuse was excluded with data of food frequency, CAGE and AUDIT questionnaires. Statistical analysis was performed with non-parametric module of Statistica 10 (StatSoft).

***Results:*** Excessive fat and protein consumption resulting in excessive energy intake, low dietary fibre and complex carbohydrates intake were characteristic features of nutritional patterns in NASH. In men, energy values of the rations exceeded recommended allowances (RDA) for (Mean±SD) 297.8±116.2, in women for 388.0±330.2 kcal/day. Total fat consumption

exceeded RDA for 47.7±21.2 g/day in men and 51.5±27.0 in women. Mean PUFAs intake were 5.2±2.1 times lower than RDA values. Mean dietary fiber intake was 8.9±3.7 g/day in men and 8.9±4.6 in women (more than twice as low than local RDA 20 g/day). Food structure was characterized by excessive red meat, poultry and processed meat intake together with low vegetable and fruit consumption.

***Conclusion:*** Nutritional patterns of Russian non-alcoholic steatohepatitis patients are characterized by excessive energy intake coming predominantly from fat, low dietary fibre consumption which should be considered to structured change of their diet.

***Keywords:*** NASH, nutritional patterns, steatohepatitis

---

***PP-14***

## *Rospective study of risk score strategies in the prediction of advanced colorectal neoplasia at colonoscopy*

**Bianca So[1], Yunki Yau[2], Viraj Kariyawasam[2], Rupert Leong[3]**

*[1]Faculty of Medicine, University of New South Wales, Sydney, Australia*
*[2]Gastroenterology and Liver Services, Concord Repatriation General Hospital, Sydney, Australia*
*[3]Sydney Medical School, University of Sydney, Sydney, Australia*

***Background/Aims:*** Current referral pathways in Australia for colorectal cancer (CRC) screening do not differentiate well between low and high-risk populations, and therefore may not be efficiently utilising resources. Whilst multiple CRC risk scoring systems currently exist and are utilised to stratify patients into low and high risk groups for priority of colorectal screening, there remains a need to identify which system has the greatest diagnostic accuracy. Therefore, we prospectively compared three existing CRC risk score systems in their ability to predict advanced colorectal neoplasia in Australian population; the Asia-Pacific Colorectal Screening (APCS) score; Hong Kong Score (2014); and Imperiale Score (2015).

***Materials and Methods:*** Patients scheduled for colonoscopy assessment, both with or without gastrointestinal symptoms, were recruited. FOBT positive patients were included, but those who had an examination of the colon, including colonoscopy, within the last five years were excluded. Univariate and multivariate logistic regression was applied to identify significant risk factors for advanced neoplasia. For each patient, the 3 different risk scores were applied and the performance of each score in the prediction of advanced neoplasia was compared by examining the area under the curve (AUC) value.

***Results:*** A total of 361 patients undergoing colonoscopy (48.2% male, median age 60 years) were prospectively recruited. The prevalence of adenomas was 31.6%, and 10.0% for advanced adenoma including 8 CRC (2.2%). Upon multivariate analysis, age and male sex were found to be significant risk factors (p=0.001, p=0.002). For predicting the prevalence of advanced neoplasia, the APCS score had AUC 0.71 (95%CI 0.63-0.79), Hong Kong Score 0.69 (95%CI 0.61-0.78), and Imperiale Score 0.68 (95%CI 0.59-0.77). Using a non-parametric comparison of the AUCs, there was no statistical significance between each of the scores for both symptomatic and asymptomatic populations (p=0.37 for APCS vs Hong Kong Score; p=0.32 for APCS vs Imperiale Score; p=0.43 for Hong Kong Score vs Imperiale Score).

***Conclusion:*** All three scores are equally effective in stratifying the population into low and high risk colorectal neoplasia groups, and may be used to prioritise patients for colorectal screening.

***Keywords:*** Risk score, advanced colorectal neoplasia

***PP-15***

## *Usefulness of duodenal biopsy in the diagnosis exploration of iron deficiency anemia in the elderly*

**Nabil Ben Chaabane, Firas Aissaoui, Mehdi Abdelwahed, Imen Jemni, Raoua Baklouti, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** Routine duodenal biopsy in adult patients with iron deficiency anaemia (IDA) is a recognised recommendation for adults. Chronic IDA is an uncommon presentation of celiac disease in elderly patients. To determine the usefulness of routine distal duodenal biopsy in diagnosing celiac disease in elderly patients with IDA whose endoscopy revealed no gastrointestinal cause of iron deficiency.

***Materials and Methods:*** Four hundred and forty-four patients with unexplained IDA aged between 16 and 85 years, who underwent routine duodenal biopsy were included in the study. These patients were divided into two groups according to their age (≤60 and >60 years).

***Results:*** Three hundred and thirty-five women and 109 men constituted the study population. The mean age was 40.5 years. Duodenal biopsy revealed typical histological features of celiac disease in 4.9%. In the group of patients below 60 years, the prevalence of celiac disease was 64%. No patients in a group above 60 years had celiac disease. Helicobacter pylori (HP) gastritis was present in 90% of the cases.

***Conclusion:*** No cases of duodenal villous atrophy has been noted in patients over 60 years. HP gastritis would be the most common cause of IDA in patients with normal gastrointestinal endoscopy in our country.

***Keywords:*** Iron deficiency anemia, celiac disease, *Helicobacter pylori*

---

***PP-16***

## *Upper gastrointestinal bleeding in elderly patients in a Tunisian Hospital: A retrospective study*

**Nabil Ben Chaabane, Mehdi Abdelwahed, Firas Aissaoui, Raoua Baklouti, Imen Jemni, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** The older age group presents a major problem in the management of acute gastrointestinal bleeding with a relatively high mortality. The study aims to describe the background characteristics, causes and outcome of acute upper gastrointestinal bleeding in the elderly in Tunisia.

***Materials and Methods:*** We retrospectively reviewed data of 401 patients aged > 60 years presenting with upper gastrointestinal bleeding. Information collected included history, physical examination findings, laboratory data, endoscopic findings and length of hospital stay. Patients were divided into two groups: group A (65–79 years) and group B (>79 years).

***Results:*** Group A included 315 patients and group B 86 patients. There was a male preponderance in both groups. Co-morbidity ($p<0.01$) and use of non-steroidal anti-inflammatory drugs (NSAIDs) or anti-platelet drugs ($p<0.01$) were more common in group B. Oesophagitis was the cause of bleeding in 38.37% in group B, as compared with 19% in group A. The main cause of bleeding in group A was peptic ulcer. Rebleeding (6/86) and emergency surgery (1/86) were rare in group B and

not different from those in group A. However, the bleeding-related mortality in the very elderly group was higher (13.9% vs. 4.76%; p=0.02). In multivariate analysis, only shock on admission was independently related to mortality (p=0.02).

***Conclusion:*** Oesophagitis is the major cause of upper gastrointestinal haemorrhage in the very elderly patients. While re-bleeding and emergency surgery rates are relatively low, the bleeding-related mortality was higher in the very elderly group.

***Keywords:*** Gastrointestinal bleeding, elderly, esophagitis

---

***PP-17***

## *Upper gastrointestinal bleeding epidemiology in Tunisia*

**Nabil Ben Chaabane, Raoua Baklouti, Imen Jemni, Mehdi Abdelwahed, Firas Aissaoui, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** Acute upper gastrointestinal bleeding (UGIB) continues to be a common cause of hospital admission and morbidity and mortality. Epidemiological studies are still limited in our country. The aim of this study is to determine the causes and outcome of patients with UGIB presenting at the teaching hospital of Monastir.

***Materials and Methods:*** The study was carried out at the teaching hospital of Monastir. The records of 874 patients who underwent endoscopy for UGIB over a period of 10 years were retrospectively analysed.

***Results:*** The acute UGIB represented 5.3% of all high digestive endoscopy. Male predominance (63.1%) was noted with an average age of 54±12 years. A bleeding site could be detected in 75.6% of the patients. Diagnostic accuracy was greater within the first 24 hours of the bleeding onset and in the presence of hematemesis. Peptic ulcer was the main cause of UGIB (50.5%) followed by erosive mucosal disease (24%). The prevalence of variceal bleeding was 9.49%. Endoscopic treatment was used in 103 cases (11.7%). Operations were performed in 51 cases (9.9%), including 9.9% of ulcers. There were 36 deaths (4.1%).

***Conclusion:*** Peptic ulcer was the most common cause of gastrointestinal bleeding in our country. Mortality was raised in variceal group. Most cases of UGIB can be treated with endoscopic hemostasis, when diagnostic endoscopy establishes the source.

***Keywords:*** Acute upper gastrointestinal bleeding, peptic ulcer, erosive mucosal disease

---

***PP-18***

## *What are the distinctive characteristics of subjects with frequent and occasional gastroesophageal reflux symptoms?*

**Nabil Ben Chaabane, Imen Jemni, Raoua Baklouti, Firas Aissaoui, Mehdi Abdelwahed, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** The aim of this study was to determine the prevalence and clinical spectrum of gastroesophageal reflux disease (GERD) in Tunisia and to compare the characteristics and disease management of subjects complaining of at least weekly and less frequent gastroesophageal reflux symptoms.

***Materials and Methods:*** Five hundred subjects living in Tunisia were interviewed face to face. The questionnaire consisted of 30 questions relating to subject attributes, lifestyle factors, medical history, reflux-related symptom characteristics, consultation behavior, previous treatments for GERD and description of the last episode.

***Results:*** The mean age was 42.3 _ 17.3 years and 75.6% were females. Sixty percent of the responders reported at least one GERD symptom. The prevalence of frequent GERD was 24%. Only 22.3% had sought medical advice about GERD symptoms in the last year. Of those who had consulted, 75% of individuals waited over 6 months before consulting a physician. Compared with subjects with occasional gastroesophageal reflux symptoms, those with frequent symptoms suffered from more severe symptoms, (OR: 3.5; CI 95%: 1.9–6.4), had more often sought medical advice (OR: 2.9 CI 95%: 1.6–5.2) and had more often used a drug therapy for GERD (OR: 2.2; CI 95%:1.3–3.8). In the multivariate analysis, work status, frequency and intensity of symptoms, duration of symptoms and association of atypical symptoms were associated with a higher frequency of medical consultation for GERD symptoms.

***Conclusion:*** GERD symptoms are common in the Tunisian population. The population with frequent GERD exhibits more severe symptoms and greater healthcare use.

***Keywords:*** GERD, prevalance, Tunisia

---

***PP-19***

## *Prevalence of gastroesophageal reflux in a Tunisian primary care population determined by patient interview*

**Nabil Ben Chaabane, Mehdi Abdelwahed, Imen Jemni, Raoua Baklouti, Firas Aissaoui, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** Although gastresophageal reflux disease (GERD) is highly prevalent in Western countries, we have very little data about it in African countries. The aim of the study is to determine the prevalence and severity of GERD symptoms among Tunisian subjects and report its characteristics, consultation rate, management modes, as well as patients satisfaction.

***Materials and Methods:*** Five hundred subjects living in Tunisia were interviewed face to face. The study was conducted at seven centers of primary care at Monastirs department by six interviewer doctors. The questionnaire consisted of 30 questions relating to subject attributes, lifestyle factors, medical history, reflux-related symptom characteristics, consultation behavior, previous treatments for GERD, and description of the last episode. Symptoms were defined as frequent if they occurred at least weekly and occasional if they occurred less frequently during the last year.

***Results:*** The mean age was 42.3±17.3 years and 75.6% were females. Over the previous year, 60% of the respondents reported suffering any GERD symptom. The prevalence of frequent GERD is 24%. Female gender (odds ratio [OR]: 1.97[1.15-3.37]) and body mass index ≥ 25 (OR: 1.54[1.042-2.29]) were associated with increased risk of GERD symptom. Only 22.3%, sought medical advice about GERD symptoms in the last year. In the univariate and multivariate analysis, work status, frequency and intensity of symptoms, duration of symptom, and association of atypical symptoms were associated with a higher frequency of medical consultation for GERD symptoms. Among the subjects complaining about heartburn, 34% took medications.

***Conclusion:*** GERD symptoms are common among Tunisian subjects. Few heartburn sufferers seek medical attention, and most do not take medications for symptomatic control.

***Keywords:*** Prevalence, GERD, Tunisia

***PP-20***

## *Determination of colonic transit time in healthy Tunisians subjects*

**Nabil Ben Chaabane, Imen Jemni, Mehdi Abdelawahed, Firas Aissaoui, Raoua Baklouti, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** Commonly used in developed countries, the study of colonic transit time (CTT) is rarely practiced in our country. CTT values obtained in a Western population can not be applied in our country. We report the CTT study performed in 37 Tunisian volunteers to determine specific values to this population that can serve as standards for CTT study in Tunisian constipated subject.

***Materials and Methods:*** This study included 37 healthy Tunisian volunteers. None was constipated, and all had at least three stools a week. They took no medication and presented no diseases that might affect their digestion. CTT was assessed according to the method described by Chaussade and al. in 1986: Subjects ingested three types of radiopaque markers in soluble medication capsules at fixed hours for three successive days; plain abdominal radiography was performed on days four, seven, and, if markers remained in the colon on day seven, again on day ten. The plain abdominal radiographs were divided into three parts, representing the right, left and rectosigmoid colons, and radiopaque markers were counted in each segment. CTT was calculated according to Arhans formula.

***Results:*** Mean values (m+/-SD) for CTT were 6,8±5,8 hours in the right colon, 8,24±7,6 hours in the left, 9,72±8,3 hours in the rectosigmoid and 24,74±16,87 hours for the entire colon.

***Conclusion:*** These results suggest the specificity of CTT in healthy Tunisian subjects. CTT norms obtained from healthy Caucasian subjects must not be used to assess CTT in Tunisian patients with constipation.

***Keywords:*** Colonic transit time, healthy tunisians

---

***PP-21***

## *Massive lower intestinal bleeding from colonic tuberculosis*

**Nabil Ben Chaabane, Raoua Baklouti, Firas Aissaoui, Imen Jemni, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

Colonic tuberculosis is an uncommon presentation of gastrointestinal tuberculosis. We describe a 46-year old patient who presented with massive rectal bleeding. The patient had required a surgical resection following which the patient died to complications. This case emphasizes the need to include colonic tuberculosis in the diagnosis of lower intestinal bleeding.

***Keywords:*** Colonic tuberculosis, massive gastrointestinal bleeding

---

***PP-22***

## *Occult hepatitis B among hemodialysed patients*

**Nabil Ben Chaabane, Mehdi Abdelwahed, Imen Jemni, Firas Aissaoui, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

***Background/Aims:*** The rate of hepatitis B infection remains high in hemodialysis units despite preventive measures. This could be attributed to the presence of occult hepatitis B among hemodialysis patients. To study the prevalence of occult hepatitis B virus infection in hemodialysis patients with negative HBs Ag.

***Materials and Methods:*** A group of patients HBs Ag (-) (n=173) followed in hemodialysis units in Monastir has been tested by the hepatitis B virus Amplicor Monitor test to detect hepatitis B virus viremia (Hepatitis B virus DNA) in serum.

***Results:*** A total of 173 patients HBs Ag (-) were included in the study (mean age: 60 years). HBV vaccination was made in 93% of patients. Twenty percent of patients were infected with HCV. The rate of transaminases was always normal even in patients anti HCV(+). No hemodialysis patients had detectable hepatitis B virus-DNA by polymerase chain reaction technology. Multivariate analysis demonstrated an independant and significant relationship between anti-HCV antibody and anti-hepatitis B virus core antibody in serum.

***Conclusion:*** Occult hepatitis virus was absent in our study. This could be explained by the high prevalence of Hepatitis B vaccinated patients.

***Keywords:*** Occult hepatitis B, hemodialysis

---

***PP-23***

## *Intrahepatic cholestasis induced by amoxicillin*

**Nabil Ben Chaabane, Firas Aissaoui, Raoua Baklouti, Imen Jemni, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Tunisia*

While it is well recognized that the combination of amoxicillin and clavulanic acid has been associated with hepatic adverse events, there are only a few reports about amoxicillin alone causing hepatic toxicity. We describe a 34-year-old woman who developed severe cholestatic hepatitis following amoxicillin treatment.

***Keywords:*** Cholestatic hepatitis, amoxicillin

---

***PP-24***

## *Increased hepatic density due to amiodarone toxicity*

**Nabil Ben Chaabane, Imen Jemni, Mehdi Abdelwahed, Raoua Baklouti, Wided Bouhlel, Arwa Guediche, Mejda Zakham, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Romaina*

Liver cirrhosis has been reported as a rare presentation secondary to amiodarone hepatic toxicity. We report a new case of amiodarone-induced hepatotoxicity with high density of liver in Ct-scan. This observation show the necessity of hepatic monitoring of patients treated with amiodarone in order to detect potentially severe hepatotoxicity.

***Keywords:*** Cirrhosis, amiodarone, hepatotoxicity

***PP-25***

## *Modified quadruple therapy versus bismuth-containing quadruple therapy in first-line treatment of Helicobacter Pylori in Turkey*

**Ahmet Yozgat[1], Benan Kasapoğlu[1], Selim Demirci[1], Fevzi Coşkun Sökmen[2]**

*[1]Department of Gastroenterology, Abdurrahman Yurtaslan Oncology Training and Research Hospital, Ankara, Turkey*
*[2]Department of Internal Medicine, Abdurrahman Yurtaslan Oncology Training and Research Hospital, Ankara, Turkey*

***Background/Aim:*** *Helicobacter pylori (H.pylori)* eradication is still an important issue in countries with high antibiotic resistance. In this study we aimed to compare the efficacy and safety of two bismuth-containing treatment modalities in *H pylori* treatment, in Turkey.

***Materials and Methods:*** Subjects with *H pylori* infection who were treated with either bismuth-containing quadruple therapy (pantoprazole 40 mg bid, tetracycline 500mg qid, metronidazole 500mg tid, bismuth subcitrate 262 mg qid daily) (BQT group) or modified quadruple therapy (pantoprazole 40 mg bid, amoxicillin 1g bid, metronidazole 500mg tid, bismuth subcitrate 262 mg qid daily) (MBQT group) for 14 days were compared retrospectively. The eradication success rate, adverse events related to the medications and compliance were investigated.

***Results:*** In a total of 244 patients (142 in BQT group and 102 in MBQT group) were included in the analyses. Totally 128 patients in BQT group and 102 patients in MBQT group completed the treatment. Intention to treat (ITT) analysis revealed 81.69% and 88.23% in BQT group and MBQT group, respectively. Per protocol (PP) analysis revealed 90.62% and 95.74% in BQT group and MBQT group, respectively. The overall rate of adverse events was significantly more common in BQT group compared with the MBQT group (39.4% vs. 18.6%; p:0.001). Among the adverse events, nausea-vomiting and abdominal discomfort was significantly more common in BQT group than MBQT group (p:0.001). The adverse events were mild-moderate in both groups and any life threatening adverse event was not determined in any of the patients.

***Conclusion:*** Although both regimens were highly effective and safe in H.pylori eradication; both ITT and PP eradication rates were higher and adverse events were lower in modified quadruple therapy group. Modified quadruple therapy should be kept in mind in first-line treatment of H.pylori in regions with high clarithromycin and metronidazole resistance.

---

***PP-26***

## *Comparison between PIVKA II (protein induced by vitamin K absence-II and alpha fetoprotein as a tumor marker among sudanese patients with hepatocellular carcinoma*

**Dalia Allam, Abdelmonem Abdo, Hala Abuelhassan**

*National Centre For Gastroentrology & Hepatology Disease (İbnsina Hospital), Sudan*

***Background/Aims:*** Alpha feto protien (AFP) is the commonly utilized tumor marker in clinical practice for hepatocellular carcinoma (HCC) inspite of it is drawback. Protien induced by vitamin K absence II has been projected as corresponding tumour marker for diagnosis HCC. The present study was conducted to look into the potential role of PIVKA II as a diagnostic non invasive marker for HCC and to determine it is sensitivity and specificity as compared with the usual recommended tumor marker AFP among sudanese patients.

***Materials and Methods:*** This is a case control study,175 patients were enrolled into the study,patients has been categorized into three groups:HCC group,liver cirrhosis without HCC and normal control group.All patients serum were collected and subjected for quantitative measurment of AFP and PIVKA II level.

***Results:*** PIVKA II levels were significantly elevated among HCC group in comprasion to liver cirrhosis group (927.2 vs 219.9.p=0.00) while AFP levels were not showing significant difference between HCC and liver cirrhosis group (p<0.05). Multiple receiver operator chractertic curve (ROC) were drawn to evaulate the validity of both AFP and PIVKA II, the AUC for PIVKA II was 0.912 (95% CI:0.866-0.926) which is siginficantly better than AFP (AUC:0.798. 95% CI:0.724-0.871). p<0.05. Moreover, the interactive DOT ROC demonstrated the optimal cutoff value for PIVKA II >105 (sensitivity 94.3%,specificity 97.1%) and >85 (senseitivity 85%,specivity 1.4%)for HCC and cirrhosis diagnosis respectivly comparing with the normal control group.

***Conclusion:*** This study concluded that PIVKA II is more sensitive and specific copmared to AFP in diagnosing HCC among sudanese patients.

***Keywords:*** Alpha feto protien, protien induced by vitamin K absence II, hepatocellular carcinoma, Sudanese patients

---

***PP-27***

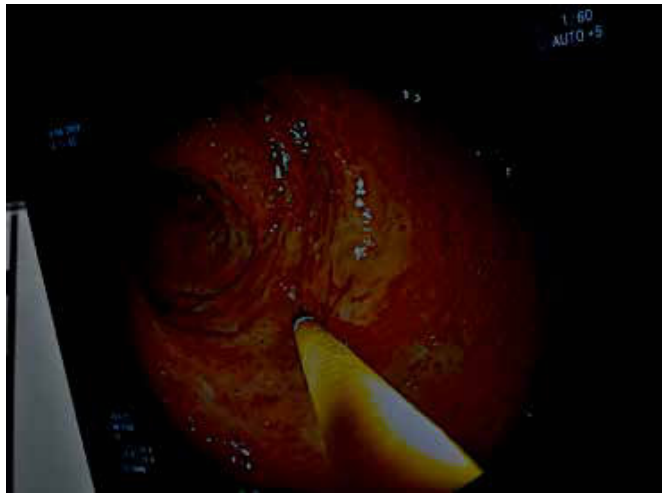
## *A rare cause of inflammatory bowel disease: Secukinumab*

**Yunus Halil Polat, Berkan Karabuğa, Rasim Eren Cankurtaran, Fatih Kıvrakoğlu, Öykü Tayfur Yürekli, Osman Ersoy**

*Ankara Yıldırım Beyazıt University, Ankara, Turkey*

***Introduction:*** Secukinumab is a monoclonal antibody used in the treatment of Ankylosing Spondylitis(AS), Psoriasis and Psoriatic Arthritis(PS), targets interleukin 17A (IL17A) and inhibits interaction between IL17A and its receptors. We present a patient that followed up with AS diagnosis, without documented inflammatory bowel disease and developed severe inflammatory bowel disease after secukinumab treatment.

***Case:*** 36 years old female patient who has not known Multiple Sclerosis(MS) and AS diagnosises, was following for MS diagnosis without medical treatment from Neurology Department. Salazopyrin treatment was started 2 years ago from Rheumatology department for AS disease. Patient used salazopyrin 6 months, when there was no response to salazopyrin treatment, secukinumab was started. First 5 secukinumab doses were given once weekly, subsequent doses were given once monthly for 4 months. Patient's inflammatory back pain regressed after secukinumab treatment. Patient applied to our center with bloody diarea 10 times per day for 2 weeks. Serological tests for diarrhea were negative. Colonoscopy was performed, colonic mucosas were hyperemic, vascular sutructure was lost, there was ulcers in all visible colon segments (image 1-2). Biopsy report from sigmoid colon was reported as compatible with Ulcerative Colitis(UK). Metilprednisolon 40mg/day oral and salazopyrin 2x2 tabletes per day were started in consultation with rheumatology department. The patient's complaint of bloody diarrhea regressed after steroid treatment. The patient whose general condition improved was discharged with weekly outpatient control, steroid dose reduction planned.



***Conclusion:*** Pathogenesis of secukinumab induced UK is not konwn exactly. Secukinumab treatment related UK attack is a rare advers affect. A case that secukinumab related UK in Psoriatic Arthritis was reported at 2018. In this case, we wanted to remind you that UK exacerbation may be considered in patients that apllied with bloody diarrhea after secukinumab treatment.

---

***PP-28***

## *Comparative study of ESD and surgical resection for gastric sets originated from muscularispropria*

**Chang Beom Ryu[1], Moon Sung Lee[1], Jun Yong Bae[2]**

*[1]Department of Internal Medicine, Soon Chun Hyang University School of Medicine, Seoul, South Korea*
*[2]Seoul Medical Center, Seoul, South Korea*

***Background/Aims:*** Endoscopic resection for gastric subepithelialtumors(SETs) originated from the muscularispropria (GSET-PM) has offered less invasive alternatives to surgical resection. The aims of this study were to compare endoscopic subtumoraldissection(ESD) with surgical resection for the removal of GSET-PM.

***Materials and Methods:*** This study involved 17 patients with GSET-PM removed by ESD and 76 patients who underwent curative surgical resection. ESD was attempted in GSET-PM with well marginated tumors which was below 5cm and showed an endoluminal growth pattern according to endoscopic ultrasound (EUS) finding.

***Results:*** ESD group were more likely to have upper portion(10/17, 58.8%) and surgery group were more likely to have mid portion(41/76, 53.8%)(p=0.039). ESD group were smaller median tumor size (25.6 mm vs 35.9 mm, p=0.037) and higher endoluminal ratio (58.5±9.1% vs 45.8±15.4%, p=0.002). ESD group were mostly to have Yamada type III (10/17, 58.8%) and surgery group were mostly Yamada type I (52/76, 68.4%) (p<0.001). Complete resection by ESD was lower than by surgical resection (82.4% vs 100%, p<0.001). In ESD group, 3 performed surgical resection after ESD (1 incompletely resection and 2 uncontrolled bleeding) and 1 showed perforation was completely resected with endoscopic closure. In surgery group, complications occurred in 6 patients (1 leakage, 1 stricture, 1 hernia and bowel obstruction, 1 wound infection and 2 worsened general condition after surgery). Although surgery group were lower in complication rate than ESD group (p=0.006), severity of complications were higher in the surgery group and there were no mortalities in the ESD group compared with 2 in the surgery group. There was no statistical difference of recurrence and the follow-up period between two group.

***Conclusion:*** ESD can be one of good options for the resection of endoluminal GSET-PM and could be replace treatment by surgical resection in Yamada type III with a high endoluminal ratio.

---

***PP-29***

## *Clinical efficacy of poem in the treatment of achalasia*

**Yerlan Abdirashev, Nurken Abdiyev, Sholpan Izmagambetova**

*National Scientific Center of Surgery Named After A.n. Syzganov,s, Astana, Kazakhstan*

***Background/Aims:*** The purpose of the study is the analyze of POEM of the treatment for achalasia and study of the effectiveness of conducted surgery.

***Materials and Methods:*** During the period from 2017 to 2018, we had treat 8 cases of achalasia II, III and IV grade. Patients were divided into the following groups: by sex (3 men/5 women), by age (23-33, 35-45) and by the degree of achalasia (3 patients-II,

4 patients-III, 1 patient-IV). Preoperative evaluation included barium swallow and EGD. Esophageal manometry was not done due to absence of necessary equipment. According to Eckhardt scale the main score was 7.9±2.1. 5 patients before POEM had conservative endoscopic treatment by balloon dilatation from 3 to 5 session. Therefore, the efficacy was temporary.

***Results:*** The average duration of all surgeries was 180±40 minutes. On the 5-th day after surgery all patients swollewed barrium contrast which did not show delay in the cardia. 7 patients was discharged on the 7-th and 1 patient on the 10-th day. On month later after POEM patients had no complaints regarding their achalasia. The Eckhardt score was 1.4±2.2. Surgery of 6 patients was done without any distinctive features. One patient had the mucosal perforation during myotomy which was clipped hermitically and subcutaneous emphysema was occurred. After POEM this patient had complain for dysphagia that was solved by balloon dilatation. Second patient, we had the problem with closing of the entrance to the tunnel. Due to pronounced inflammatory of mucous the clipping was failed. In this case after surgery, we placed catheter to esophagus with active aspiration. Also the patient took parenteral nutrition and antibiotic therapy. During 3 months later after POEM 2 patients had GERD symptoms. The PPI therapy was subscribed to them. In the post-operative period 2 patients had symptoms of mild disphagia. After 1 session of balloon dilatation the complaints were solved.

***Conclusion:*** POEM proved its effectiveness in all types of achalasia. The main advantage was it's high efficiency along with its minimal invasiveness and safety, in comparison with conservative and surgical methods of treatment; the high level of safety for the patient in terms of the risk of infection after surgery, hemodynamic instability, respiratory and metabolic disorders.

***Keywords:*** Achalasia, POEM, dispagia

---

***PP-30***

## *Hepatic artery pseudo aneurysm-treated using stent graft implantation*

**Benoy Sebastian, Sunil Mathai, Sajith Sebastian, Jenny Susan**

*Medical Trust Hospital, Kochi, India*

***Introduction:*** Visceral artery pseudo aneurysm is rare in clinical practise, most commonly involving the Splenic artery and Hepatic artery are most commonly involved. Visceral artery pseudo aneurysms is defined as aneurysms affecting the Celiac, Superior, Inferior Mesenteric arteries and their branches. True visceral aneurysms involves all layers of the wall while False aneurysms or visceral artery pseudo aneurysm result from a tear in the vessel wall due to trauma with subsequent periarterial hematoma formation. Their occurrence are rare. They are of clinical importance in view of their high incidences of rupture and haemorrhages. The clinical features and symptom s disease differ for each anatomical location. Here we describe a case of hepatic artery pseudo aneurysm following a Open cholicystectomy.

***Case:*** 67 years lady admitted with complaints of severe and diffuse abdominal pain predominantly over the right upper quadrant 4 days and fever since 2 days. She recently underwent TAH with BSO for ovarian cyst along with open cholicystectomy and Para umbilical hernia repair with mesh in the same setting one and half months back. During the post op days she developed fever spikes and abdominal pain. She was treated for 7 days with broad spectrum antibiotics and was referred here in view of persistent fever. USG and CT suggested of a pelvic and Peri-Hepatic collection with aspiration suggestive of haemorrhagic fluid and sterile cultures. She was managed conservatively with iv antibiotics. She was discharged after 5 days as was clinically asymptomatic during hospitalization. After 3 week she presented back with fever and abdominal pain, anaemia,altered Liver functions and CT suggestive of a large hepatic artery aneurysm with pelvic and Peri hepatic collections.She was managed with hepatic artery stenting involving the right anterior division of hepatic artery adjusent to the bifurcation there by preserving the parent artery. She was discharged and followed up after 3 months showing complete obliteration of aneurysm and well preserved hepatic arteries.

***Conclusion:*** Hepatic artery pseudo aneurysm is a rare in clinical practise and their management with stent graft is a novel approch to preserve liver function and prevent biliary strictures.

***Keywords:*** Hepatic artery pseudo aneurysm, stent grafting, liver mass

***PP-31***

## *Scourge of a pancreatic lesion-traversing a narrow path*

**Sunil Mathai, Benoy Sebastian, Mary George, Sajith Sebastian, Jenny Susan**

*Medical Trust Hospital, Kochi, India*

***Introduction:*** Idiopathic retroperitoneal fibrosis or Ormond's disease, is characterized by the extensive development of inflammatory fibrotic tissue in the retro peritoneum causing compressions, infiltration and obstruction of the ureters and other adjacent organs. Aorta, vena cava, mesenteric vessels, biliary ducts, duodenum colon, portal veins and pancreas may rarely be involved. Diagnosis of such cases possesses a diagnostic and treatment challenge and often results in dismal outcome. We report a patient with pancreatic mass lesion presenting with features of portal hypertension and massive upper gastrointestinal bleeding.

***Case:*** 36-year-old gentleman presenting with six months history of weight loss, uncontrolled Diabetes and upper abdominal pain and 2 weeks history of jaundice and pruritus. A provisional diagnosis of pancreatic mass with billiary obstruction was considered. He was extensively investigated and was suggestive of a pancreatic head lesion with distal billiary obstruction but tissue biopsy and tumour markers were inconclusive. He was taken up for a whipples procedure elsewhere was reported intra operatively as inoperable due to extensive infiltration and underwent a palliative cholicystojejunostomy. Biopsy suggestive of reactive histiocytosis. He was sent back and a Repeat EUS FNAC and IHC suggestive of neutophillic infiltration with extensive fibrosis, negative of malignancy. Later on after 3 weeks he presented with massive GI bleeding with entroscopy showing actively bleeding from the edges of cholicystojejunostomy which was stabilised with hemoclipping. Contrast CT and angiography suggestive of extension of lesion with narrowing of portal trunk and its side branch and portal hypertension. He underwent Portal venous stenting after another episode of upper GI bleeding but unfortunately after a short while he developed an episode of massive GI bleeding and succumbed to it.

***Conclusion:*** In the differential diagnosis of cases with a pancreatic mass lesion and with normal tumour marker levels and absence of findings of metastasis, retroperitoneal fibrosis should be considered.

***Keywords:*** Pancreatic mass, upper gastrointestinal bleeding, retroperitonial fibrosis

---

***PP-32***

## *Endoscopic transmural drainage with duodenoscope and needle knife sphincterotome followed with transabdominal ultrasound simulltaneus: A case report*

**Jusuf Vejseli, Aleksandar Georgieski**

*General City Hospital 8th September, Macedonia*

***Introduction:*** We report on the case of a patient with pancreatic pseudocysts and the challenges encountered in the low resource setting when performing endoscopic cystogastrostomy for pancreatic pseudocysts. To the best of our knowledge this is the first report of endoscopic cystogastrostomy from the Republic of Macedonia.

***Introduction:*** A pancreatic pseudocyst is a collection of fluid which is rich in pancreatic enzymes (especially amylase, lipase), blood and necrotic tissue, that have nonepithelialized wall consisting of fibrous and granulation tissue. Pancreatic pseudocysts account approximately 75% of all pancreatic masses and the most common cause of pancreatic pseudocyst is inflamation of pancreas, discruption of the pancreatic duct and less common cause or contributor is trauma, such as a blow to the abdomen. Most common locations are the pancreatic parenchyma, omental bursa, retroperitoneal space etc. They connect to the pancreatic duct directly or throught the pancreatic parenchyma. Pancreatic pseudocysts may be asymptomatic or may

be manifested with the following symptoms: epigastric pain, vomiting, postprandial sensation of fullness, icterus, weight loss, anorexia, fever etc. More than 50% of pseudocyst cases resolve spontaneously, but lager cysts (>5cm) usually require surgery or endoscopic treatment to avoid complications (infection, hemorrhage, rupture, compression of large vessels, obstruction of biliary duct etc).

***Case:*** We present a case of 64 year old patient with persistent and strong epigastric pain. The patient is diagnosed with chronic pancreatitis and a pancreatic pseudocyst in the left side of the pancreatic body. The complete blood count showed increased levels of pancreatic enzymes, CRP, low levels of CEA and CEA-125. The last abdominal ulstrasound confirmed that the pancreatic pseudocyst had grown to a size of 75x80x90. CT confirmed the presence of grown pancreatic pseudocyst (size 83x82x97) and GOO.The patient was a candidate for Open Surgical Drainage, but he refused it, that is why our collegium decided to manage his pseudocyst with *endoscopic transmural drainage with duodenoscope and needle knife sphincterotome followed with transabdominal ultrasound simulltaneus.* Transmural drainage can be done across the duodenal or gastric wall, depending on pseudocyst location. Indications for transmural drainage are when there has been no disruption of the pancreatic duct, when there is a compression in the gastric or duodenal wall, pseudocyst size larger than 5cm or when there is <1 cm distance between the pseudocyst and intenstinal wall on imaging etc. At the end the pancreatic fluid was drained from the pseudocyst into the gastric lumen, resulting with abdominal decompression. The recovery period is uneventful and the patient was now able to tolerate a normal diet. The patient remained clinically well 6 months after stent removal and the abdomen remained flat. Repeat ultrasound 12 weeks after stent removal showed no evidence of recurrence and the patient was discharged from followup. A triple lumen needle knife sphincterotome was advanced throught the channel and used to create 2cm incision in the gastric mucosa with bipolar electrocautery. Entry into the pseudocyst was confirmed by a gush of clear pancreatic fluid returning.

***Conclusion:*** Endoscopic drainage represents an efficient modality of drainage with a high resolution rate and lower morbidity and mortality than surgical/percutaneus approach. Transmural endoscopic drainage is a safe procedure with minimal complications, it should be the procedure of choice for pancreatic pseudocysts with a visible bulge into the GI lumen.

***Keywords:*** Endoscopic transmural drenaige, pseudocyst, cystogastrostomy, open surgical drainage

***PP-33***

## *Litholytic therapy effectiveness prognosis at patients with gallstone disease associated with metabolic syndrome*

**Vadim Akhmedov, Olga Gaus**

*Omsk State Medical University, Russia*

***Background/Aims:*** Gallstone disease is one of the most common human diseases in developed countries. The aim To develop the predictors of the effectiveness of oral litholytic therapy at patients with cholelithiasis associated with metabolic syndrome.

***Materials and Methods:*** The main study group consisted of 54 patients with gallstone disease and metabolic syndrome, among them 32 women (59.3%) and 22 men (40.7%) with middle age 52.33±7.48 years. The comparison group consisted of 29 individuals who had only gallstone disease without metabolic syndrome, comparable by sex and age with patients of the main group. A laboratory studies were aimed at determining the levels of AlAT, AsAT, γ-glutamyltranspeptidase, lipid profile matrix metalloproteinase-9 (MMP-9), tissue inhibitor of matrix metalloproteinases-1 (TIMP-1) in the blood serum.

***Results:*** As a result of single-center cohort comparative open prospective study found that the effectiveness of the litholytic therapy in patients with gallstone disease and the metabolic syndrome significantly lower than in patients with gallstone disease without the metabolic syndrome. It was revealed that the initial levels of low density cholesterol, γ-glutamyltranspeptidase, matrix metalloproteinase-9 in the serum, indicators of the waist circumference and the thickness of the left lobe of the liver determine response to conservative treatment with ursodeoxycholic acid in patients with gallstone disease associated with metabolic syndrome.

***Conclusion:*** On the basis of the data was created the formula developed to predict the effectiveness of the litholytic therapy in these patients using available methods of examination.

***Keywords:*** Gallstone disease, metabolic syndrome, litholytic therapy, ursodeoxycholic acid

---

***PP-34***

## *Carcinoma hepato cellular infanto-juvenil in the service of gastroenterology OF HCM-Maputo-Mozambique*

**Luzmira Mutambe Dimande, Rouqueia Cumbana, Sheila Machatine, Prassad Modcoicar, Muhammad Ismail, Ivo Jones**

*Central Hospital of Maputo, Mozambique*

***Background/Aims:*** Primary malignant liver tumors are rare in childhood, with an incidence of about 1-6 cases per million children (0-14 years). Although hepatoblastoma (HB) accounts for 80% of liver cancer related to children, hepatocellular carcinoma (HCC) is more uncommon, with increasing incidence with age. Only about 0.5%-1% of all pediatric tumors are CHC, the incidence is higher and the risk of CHC in chronic HBV carriers is estimated at 10%-25%.

***Materials and Methods:*** This is a descriptive study of 5 cases, based on a retrospective analysis of the Gastroenterology Service database during a period of 1 year (jan-2017 to jan-2018). The variables referring to age, sex, provenance, markers of hepatitis B, alpha fetus protein were evaluated.

***Results:*** Five cases of CHC (100%) were histologically confirmed, of which 3 (60%) were male, 2 (40%) female, 2 (40%) were patients in the 11-15 age group and 3 (60%) patients between 16 and 18 years of age. Regarding the etiology 3 (60%) patients presented positive serology for HBsAg (hepatitis B virus), with a lethality of 100% in the first hospitalization.

***Conclusion:*** Data indicate that child with CHC becomes a public health problem in our country, and that the etiology involved is the hepatitis B virus of probable vertical transmission. The present work serves as a multidisciplinary reflection through the implementation of the universal vaccination program recommended by the WHO, focused on the early diagnosis of hepatitis B virus infection in pregnant women as well as its treatment and the prophylaxis of the newborn with the aim of reducing the incidence of HCC.

***Keywords:*** Hepatocellular carcinoma (HCC), tumors in childhood, hepatitis B

***PP-35***

## *An submucosal tunneling endoscopic resection (STER) ended up with endoscopic marsupialization*

**Sajith Sebastian, Jenny Susan**

*A J Hospital, Karnataka, India*

***Background/Aims:*** Gastrointestinal duplication cysts are rare congenital GI malformations. Esophageal duplication cysts are second most common cysts following small bowel duplication cysts, Prevalrence of which is 0.0122%.A 35 year old gentleman presented with complaints of intermittent dysphasia to solids of recent onset. He had undergone OGD for his complaint which revealed a globular sub mucosal swelling in lower end of esophagus. Contract CT and EUS was performed which was suggestive of leiomyoma. He was subsequently posted for Sub Mucosal Tunneling and Endoscopic Resection (STER). While dissecting out the lesion, its capsule ruptured and extrusion of cheesy material was noted. The material was drained and a single cavity was noted. The procedure was abandoned and subsequently marsupialization was done in view of duplication cyst. Later Tissue biopsy revealed a esophageal duplication cyst.After 1 year of follow up he is symptom free and OGD shows a normal esophagus.

***Materials and Methods:*** Submucosal tunneling dissection of the lesion rupture of capsule extrusion of cheesy material widening of incision on capsule irrigation of cyst from the tunnel ıncision of mucosa on opposite side true lumen extension of incision clipping of edges of cyst opening along with clipping of tunnel entry.

***Results:*** Esophageal duplication cysts are rare congenital anomalies of the foregut. EUS is widely used as a modality for evaluation and diagnosis of duplication cysts. EUS shows duplication cysts as anechoic, homogenous lesions with regular margins arising from the sub mucosal layer. In our case the dilemma arose as EUS demonstrated a hypoechoic lesion arising from layer 4 of esophagus and thus corroborating with CT finding of leiomyoma. The STER procedure was modified on table to endoscopic marsupialization for the duplication cyst.

***Conclusion:*** A STER procedure was planned for resection of a layer 4 esophageal lesion but ultimately an unconventional procedure had to be adopted for tackling the unforeseen lesion. The case is being presented for showcasing the diagnostic dilemma which it posed and the therapeutic misadventure that entailed.

***Keywords:*** STER, marsupialization, cyst

---

***PP-36***

## *Initial experience with the placement of a swallowable intragastric balloon*

**Fernando Robledo, Horacio Rubio, Silvia Lettieri, Franco Peral, Tatiana Alfonso, Melvi Cossio Rocha, Cinthia Choque**

*Higa Dr Diego Paroissien, Buenos Aires, Argentina*

***Background/Aims:*** Evaluate the effectiveness and response Gastric balloon (Lexbal) in the treatment of mild to moderate obesity Observational and retrospectiv.

***Materials and Methods:*** We conducted in Hospital Paroissien an observational, retrospective study. We have compiled the results of 14 follow intragastric balloons (Balon Lexbal) in obese patients with mild to moderate type I-II (BMI between 28 and 34.9 kg/m$^2$) placed in 2015 and 2018 losses have been achieved. over 70% of excess weight. Furthermore, it has been observed satisfaction of our patients. The variables studied were age sex, weight BMI,% of weight lost, fill volume,tolerance, satisfaction and dietary monitoring.

***Results:*** Over 80% degree of patient satisfaction, 70% decrease in weight above the average (over 12 kilos) better response in those presenting adherence to nutritional treatment and no differences were observed in the volume of filling the balloon.

***Conclusion:*** Treatment with intragastric balloon, along with a nutritional monitoring allows us to re-educate the patient, and change their eating habits. • Just for gradual diet, and to adapt each phase as tolerated by the patient, helps us to improve dietary behavior and facilitates greater weight loss The intragastric balloon is a safe, well tolerated, with few adverse effects and relatively simple in the hands accustomed to endoscopic practice.

***Keywords:*** Swallowable, intragastric balloon

---

***PP-37***

## *Banking on a tumor marker, are we on the right path?*

**Sajith Sebastian, Sunil K Mathai, Benoy Sebastian, Jenny Susan, Mary George**

*Medical Trust Hospital, Kochi, Pakistan*

***Background/Aims:*** The Presence of ascites correlates with the peritoneal spread of ovarian cancer and is associated with poor disease prognosis. We describe a case report presented with loculated ascitis as an upper abdominal lump and mimicing a gastrointestinal tumor, which turned out to be metastatic ovarian tumor.

***Materials and Methods:*** 69 year old lady presented to gastroenterology department with history of anorexia 6 months and a gradually progressive upper abdomial pain and distention pain for 3 months. It was associated with weight loss of 6 kg in 3 months. She is a known diabetic which recently got worsoned, hypertensive and has dyslipidemia. On examination she had vague lump felt in the epigastrium with Smooth surfaces. Routine blood investigations and tumor markers suggestive of a pseudocys. Contrast CT abdomen and pelvis revealed a large encapsulated Lesser Sac Collection with Para-esophageal Lymphadenopathy,peritoneal and Omental Caking and bulky left ovaries. EUS showed a large lesser sac collection with normal pancreas and adjusent structures. Fluid cytology showed amylase 3082 u/l,TBPCR was non-reactive, Tumor markers CA 19.9,CEA-WNL, CA 125-8934, S CA125 -753.FNAC and clot biopsy shows papillary epithelial cell clusters with atypical cells, favoring a papillary epithelial neoplasm. In view of this laproscopic biopsy done suggestive of a papillary neoplasm of ovary with metastasis.

***Results:*** Lobulated Ascites pose a diagnostic dilemma for the gastroenterologist. Tumour markers can be lead point.

***Conclusion:*** It is not usual in that various types of benign to highly malignant ovarian tumors rarely may present as loculated ascites of unknown origin to the gastroentrology unit. Physicians should always have a diffrential of a genitourinary mailgancy in case of a unexplaned ascitis.

***Keywords:*** Ascitis, ovarian neoplasum, CA 125

---

***PP-38***

## *An unusual cause of back pain in South India: Case report*

**Jenny Susan, Sajith Sebastian**

*A J Institute, Pakistan*

A 35 years old female residing in Anchal, a place in kerala presented with a history of back pain with stiffness for around 15 years duration with hip pain and progressive restriction of hip movements for about 6 years. She was wheel chair bound for 3 months. She presented now with a difficulty to lie down for 2 weeks duration due to pain. She was recently detected to be Diabetic. There is No history of any prolonged Morning stiffness, peripheral joint pain and swelling, Uveiitis. Family history is only suggestive of early onset Diabetes in her mother. Examination showed moderately built lady, wheel chair bound. She had Yellowish mottiling in her tooth with multiple dental caries and fillings. Para spinal muscle spasms were noted with severe restriction of hip and spinal movements, Enthesitis along her lower lumbar spine without any neurological deficit. Imagology showed typical findings suggestive of severe skeletal Fluorosis. This was supported by elevated levels of 24 hour Serum and Urinary fluoride levels, elevated ALP, PTH, The low S calcium and Low normal Vit D3 levels were two known risk factors of Fluorosis. Well water fluoride levels were negligible and other possible sources of fluoride exposure were excluded. She is being treating with Vit D3, Ca2+, Vit C and E supplementations along with regular physiotherapy. Currently on follow up and doing well. This case carries the significance because of the possibly a Unknown source of severe Skeletal fluorosis in a region which is non endemic region to it. It may suggest a possibly of a genetic basis in the metabolisms of fluoride in the body leading to skeletal fluorosis. It is the first reporting case of skeletal fluorosis in south india.

***Keywords:*** Skeletal fluorosis, South India, endemic region

---

***PP-39***

## *Taking training to a next level. IHU and live animal models for hands on therapeutic endoscopic ultrasound (TEUS)*

**Sosa-valencia Leonardo, Habersetzer Francois, Huppertz Jerome**

*Institute of Image Guided Surgery-ihu, Strasbourg, France*

***Background/Aims:*** EUS is difficult to learn and has a steep learning curve. Therapeutic EUS (TEUS) is even more so. Simulators, ex-vivo models and phantoms are the most common current teaching modalities. We designed a training curriculum for TEUS that uses high-fidelity animal models and present a validation study performed by 4 TEUS experts.

***Materials and Methods:*** 3 different simulated pathologies were created in each of 9 acute pigs. 4 TEUS experts performed 15 therapeutic procedures in two or more animals over two days. Each intervention was evaluated simultaneously using a structured survey by a non-expert observer. Data included demographics and procedure details as well as likert-scale evaluation of the quality, realism and education utility of the simulations. Global evaluation of the experience was captured from the experts as written comments. All data was registered and analysed by two blinded surgical educators. Three types of models were created using surgical access: 1-Tumors (injection of 4 types of Hydrogel), 2-Retro-gastric Collections (5-7cm long intestinal loops filled with oatmeal, oil-water and gel), 3-Obstructions (bile duct and ureteral ligations 2 days prior). Gastric, pancreatic and liver tumor models were used for FNA and FNB practice. Retrogastric fluid collections and choledochal/ureteral Obstructions were used for cyst gastrostomy, hepaticogastrostomy, gallbladder drainage and kidney drainage.

***Results:*** Expert Age: 45-63, Median time 22min (5-45), Total of 60 interventions evaluated, Overall quality of experience: 37(68%) ranked 8-10 (Excellent), 14(27%) from 7-4 (good), 3(5%) from 1-3 (poor), 54/60 procedures were successfully completed. Models were rated excellent quality (7-10) in 42(70%), poor quality in 8(13%). For 17%(10) of the interventions the model was considered not good enough to be repeated, has sausages with high fat content, collections not well attach intestines to the outer serosa of the stomach, normal wirsung duct.

***Conclusion:*** High-fidelity live animal models with simulated pathologies are considered to be excellent and original training tools by experts and may provide a better learning experience for TEUS.

***Keywords:*** Endoscopic ultrasound, live modified animal model, learning curve

***PP-40***

## *Safety of endoscopic retrograde cholangiopancreatography in liver transplanted patients: A single-center restrospective study*

Cherng Harng Lim

*Lukang Christian Hospital, Changhua County, Taiwan*

***Background/Aims:*** The incidence rate of ERCP complication in liver transplanted patient has not been well studied. Some studies believed such patients inherit higher complication risk in ERCP procedure owing to innate structure deformity and coagulopathy condition. Our aim of this study is to evaluate the post-ERCP complications incidence in liver transplanted patients.

***Materials and Methods:*** All liver transplant patients (deceased donor and living-related donor) from January 2010 to December 2015 who underwent ERCP procedure alone in Changhua Christian medical center hospital were retrospective evaluated. Data regarding post-ERCP complications including pancreatitis, hemorrhage, perforation and infection are collected and analyzed.

***Results:*** A total of 98 ERCP procedures were performed in 43 liver transplanted patients during 5-year period. The overall incidence rate of post ERCP complications was 13.27%. The most common complication was bleeding 6.12%, followed by pancreatitis 5.10%, perforation 2.04% and cholangitis 1.02%. Among patients with post-ERCP hemorrhage, more than half of the patients had delay bleeding and required more than 2 times of endoscopic procedure.

***Conclusion:*** Differ from general ERCP complications, all of the perforation events were related to bile duct injury. According to our collected result, ERCP procedure carried certain risk in liver transplanted patient. Complication such as delayed or recurrent bleeding, bile duct injury should be aware, particularly in graft rejection or infection status. Risk factors leads to complication is needed to be identified in exchange to better prognosis in liver transplanted patients.

***Keywords:*** Liver transplant, endoscopic retrograde cholangiopancreaticography, complication

---

***PP-41***

## *Efficacy and safety of water-added and limited air insufflation colonoscopy in minimal sedated patients*

Cherng Harng Lim

*Lukang Christian Hospital, Changhua County, Taiwan*

***Background/Aims:*** The line between patient's comfort and colonoscopy effectiveness are always a tricky issue to endoscopist to cope with, particularly in tertiary hospital with limited human resources.

***Materials and Methods:*** We collected patients underwent colonoscopy in tertiary hospital (Changhua Christian Hospital Lukang branch) from 2016 Dec 01 to 2017 May 01. A total of 77 patients who received scheduled colonoscopy procedure were using either limited water exchange method (Group A) or limited air insufflation method. Water exchange method been used in this study was using a foot-switch controlled water pump (PENTAX SA-P2) infused through the accessory channel of the colonoscopy during insertion phase. In limited air insufflation group, limited air will be infused during insertion phase. Limited water will be used for washing residual stool, as needed.

***Results:*** The mean procedure time to reach cecal was in water exchange and air insufflantion method was 9.9±4.5 minutes 11.5±6.8 minutes respectively (p=0.24). Cecal intubation rate in both group was 100%. As for terminal ileum intubation time was 10.8±4.8 minutes in water exchange method with intubation rate 92.10%. The mean terminal intubation time was 11.3±6.7 minutes in with intubation rate 89.74% (p=0.73). Adenoma detection rate in water exchange was 44.44% and

53.85% in air insufflation method. The maximum pain scores were significant lower in WC group (1.8±2.1 vs. 4.3±2.7) (AC) respectively. The median dose of meperidine and dormicum been applied during colonoscopy was 0.54 mg/kg and 0.03 mg/kg (WC) vs. 0.63mg/kg and 0.026mg/kg (AC). None of the participants had complication in both groups.

***Conclusion:*** Water-added method significant reduces colonoscopy discomfort in patients underwent minimally sedated colonoscopy. Intubation time was not longer water-added method compare to air insufflated colonoscopy.

***Keywords:*** Limited-water-added, limited-air insufflation, colonoscopy, EGD, minimal sedated

---

***PP-42***

## *Gastric adenocarcinoma: Study of the morbidity and oncological results of a series of 192 cases*

**Waad Farhat, Bouazzi Amal, Sami Lagha, Mohamed Amine Said, Fathia Harrabi, Ali Ben Ali**

*Department of Digestive Surgery, Sahloul Hospital Sousse, Sousse, Tunisia*

***Background/Aims:*** Despite the decrease of its incidence, gastric cancer remains a major public health problem worldwide. The prognosis of this cancer has shown little progress in 25 years,despite the standardization of surgical techniques and the introduction of multimodal therapy.

***Materials and Methods:*** This is a descriptive and analytical retrospective study over a period of 15 years from January 1st,2000 to December 31st, 2015.The study included 192 patients who underwent surgery for gastric adenocarcinoma. Survival rates and recurrence were analyzed by the Kaplan–Meier and Mantel–Cox method,and multivariate analysis was done using the Cox proportional hazards model.

***Results:*** The median overall survival was 13 months. The overall survival at 1 year is 57.5%,at 3 years,it decreases to 27%,at 5 years,it is 22% and at 10 years it is 14%.The presence of a tumor residue, larger tumor size and the advanced tumor stage are independent prognostic factors of poor prognosis for survival in operated patients.The locoregional recurrence rate was 21.7%.The multivariate analysis showed that subtotal gastrectomy increases the risk of locoregional recurrence by 2.81 times. The distance recurrence rate was 41.37%.Serosal invasion and the presence of an infiltrative component were independent prognostic factors of distant recurrence with HR=2.88 (p=0.023) and HR=3.49 (p=0.002),respectively.

***Conclusion:*** Overall survival in patients operated on or gastric adenocarcinoma depends mainly on the disease,namely the tumor size and the stage of the disease,but also on the efficiency of the surgical procedure through the presence of a tumor residue which is retained as an independent prognostic factors of poor prognosis.The choice of the type of gastrectomy is involved in loco-regional recurrence:a subtotal gastrectomy is a risk factor for loco-regional recurrence.Hence the need for a broader indication of total gastrectomies.

***Keywords:*** Morbidity, mortality, carcinoma stomach

---

***PP-43***

## *Ulceratıve colıtıs 1-year after colon cancer: An unexpected case*

**Şerife Çoşkun[1], Abdullah Tanrıkulu[1], Bülent Yıldırım[2]**

*[1]Department of Internal Medicine, Akdeniz University School of Medicine, Antalya, Turkey*
*[2]Department of Gastroenterology, Akdeniz University School of Medicine, Antalya, Turkey*

Ulcerative colitis is a risk factor for colorectal cancer development and this risk increases with the activity and duration of bowel inflammation, mostly 8-10 years later.Unexpectedly, we describe a 59-year-old man who developed ulcerative colitis 1 year after colon cancer diagnosis and treatment. Although this could be a coincidence, there could be additional possibilities, like pre-existence of quiescent colitis, effect of therapy, or maybe the existence of common pathogenetic factors contributing to the development of ulcerative colitis and colorectal cancer. A 59-year-old man presented with a complaint of constipation. In the colonoscopy, a mass in the sigmoid colon was found. The patient underwent left hemicolectomy. Subsequently, the patient received 8 cycles of adjuvant chemotherapy with capecitabine, without any complications. One year after the occurrence of colon cancer, the patient was admitted again in our hospital due to mucus flow mixed with blood from the rectum. Colonoscopy revealed pathology in the rectum is the bowel mucosa appearing fragile, edematous, and there was spot bleeding focies, Mayo score 2. Pathology was reported as mild colonic crypt distortion, increased plasma cell infiltration in lamina propria and active colitis characterized by moderate inflammation accompanied by mild edema. Based on the above findings, ulcerative colitis was diagnosed and the patient was started on rectal mesalazine 4 gram three times a day. Three months later, the patient again admitted our hospital for the control colonoscopy. The patients complaints improved. Colonoscopy reported as mild activity with mayo score 1 and histopathologically characterized by mild inflammation accompanied by mild edema. There are not many reported cases in the literature in which colorectal cancer precedes ulcerative colitis by so long. Therefore, it is possible that our patient had quiescent ulcerative colitis that had remained asymptomatic and undiagnosed, then developed colorectal cancer, and had exacerbation of his colitis 1 year later. There has been a longstanding debate as to whether even sporadic colorectal cancer is strongly associated with a state of continuous microinflammation in the colon, triggered by bacteria of the intestinal flora or with a disorder in the normal regulatory response of the immune system towards these bacteria. Other possibilities to explain the late occurrence of ulcerative colitis in our case could be effect of chemotherapy. However, there is no reported side effects of capecitabine related with ulcerative colitis.

***Keywords:*** Colorectal cancer, ulcerative colitis, ınflammatory bowel diseases

***PP-44***

## *Fecal calprotectin: A reliable predictor of disease extent and endoscopic severity in ulcerative colitis*

Sung Jae Shin, Gil Ho Lee, Choong-kyun Noh

*Ajou University School Of Medicine, Suwon, Korea*

***Background/Aims:*** Fecal calprotectin is well known as an indicator of the disease activity in patient with ulcerative colitis. The aim of this study was to determine whether fecal calprotectin correlates with endoscopic severity and disease extent by simultaneously measured fecal calprotectin and endoscopy.

***Materials and Methods:*** We retrospectively analyzed patients with ulcerative colitis from January to December 2018. Endoscopic severity was assessed by reviewing endoscopic photographs and scoring (0-3 points) as the findings of proctosigmoidoscopy in the Mayo score. In order to reflect the extent of disease, the new scoring system (0-9 points), which is calculated by adding up the Mayo endoscopic score in rectum (0-3 points), in Lt. side colon (0-3 points) and in Rt. side colon (0-3 points) was created and used for analysis.

***Results:*** A total of 112 patients with ulcerative colitis who underwent both measuring fecal calprotectin and endoscopy simultaneously within two weeks were included. According to the Montreal classification, 61 patients had proctitis, 24 patients had Lt. sided colitis and 27 patients had pancolitis. Mayo endoscopic scores were measured as 0 point in 25 patients (22.3%), 1 point in 48 patients (42.9%), 2 points in 27 patients(24.1%) and 3 points in 12 patients (10.7%). The mean values of fecal calprotectin according to Mayo endoscopic score were 69.25±87.99 in score 0, 478.34±554.51 in score 1, 744.70±750.39 in score 2 and 1436.08±750.38 in score 3. There is a positive correlation between fecal calprotectin and Mayo endoscopic score ($r=0.550$, $p<0.001$). There is also a positive correlation between fecal calprotectin and new scoring system (0-9 points) ($r=0.571$, $p<0.001$).

***Conclusion:*** Fecal calprotectin appeared to be objective biomarker that predicts disease extent and endoscopic severity in ulcerative colitis patients.

***Keywords:*** Fecal calprotectin, ulcerative colitis, Mayo score

---

***PP-45***

## *Case report: Tolvaptan induced diabetes insipidus*

**Fuad Mustafayev, Cem Şimşek, CavanŞir Vahabov, Hatice Yasemin Balaban**

*Department of Gastroenterology, Hacettepe University School of Medicine, Ankara, Turkey*

***Introduction:*** Tolvaptan acts as an inhibitor of Antidiuretic Hormone (ADH) binding to Vasopressin-2 receptors in the distal nephron. It is mainly used to prevent formation of parenchymal cysts in the polycystic kidney disease, and to treath hypervolemic hyponatremia in the context of heart failure or end-stage liver disease. Tolvaptan treated patients can exhibit various adverse events such as dry mouth, constipation, polyuria, hyperglycemia, and anorexia. Diabetes insipidus (DI) is one of these adverse events which could be explained by mechanism of action the drug. Thiazide diuretics has been suggested as the first line treatment for Tolvaptan induced DI. Here, we report such an adverse event in a patient with end-stage liver disease.

***Case:*** A 51-year-old female patient with a history of heavy alcohol consumption over 3 years was hospitalized with a diagnosis of acute on chronic hepatitis. At the time of hospitalization, her Child-Turcotte and MELD-Na scores were 9 and 25, respectively. Steroid treatment at dose of 40 mg pd, IV was initiated, as the calculated discriminant factor was 79,1. She demonstrated a good response to steroid with a decrease in total bilirubin level from 29 to 14 mg/dl, and INR value from 2.12 to 1.71. However, her hospital course was complicated by a nosocomial pneumonia and subsequent acute respiratory distress syndrome. After being intubated and followed up in the intensive care unit for 22 days, she eventually recovered from her respiratory illness. However, a consequent critical illness myopathy precluded her from discharge and she was admitted to the floor. Then, she developed extensive hypervolemia with deep hyponatremia under the treatment of furosemide 40 mg, spironolactone 200 mg. Her laboratory values were as follows; BUN: 82.23 mg/dl, Cre: 0.51 mg/dl, Na: 123 mEq/l, K: 4.03 mEq/l, urine Na: 35.2 mEq/l. The hyponatremia did not improve with fluid restriction, and precluded the escalating diuretic doses to maximum levels. Therefore, Tolvaptan was initiated at the dose of 15 mg with 15 mg increments every three days. Following this treatment, the sodium levels increased to 135 mEq/l over 9 days. However patient developed intractable polydipsia and polyuria with a daily urine output of 6000 cc. Tolvaptan as well as other direutics were immediately discontinued. She was discharged with the recommendation of home physical therapy program, after stabilization of the sodium levels around 130 mEq/l.

***Conclusion:*** Hyponatremia in end-stage liver disease patients is challenging and Tolvaptan is an important drug in our arsenal. DI is an expected adverse event of Tolvaptan treatment, however it can be consequential in such volume sensitive patients. Since hyponatremia and hypervolemia were already improved in our patient, we could manage the Tolvaptan induced DI by cessation of the drug and continued restriction of fluids without thiazide treatment.

***Keywords:*** Tolvaptan, diabetes insipidus, hiponatremia

---

***PP-46***

## *Galectin-3 in people with ischemic heart disease and concomitant gastroesophageal reflux disease*

**Alisa Vnukova[1], Aleksey Oparin[1], Stanislav Rybchynskyi[2]**

*[1]Kharkiv Medical Academy of Postgraduate Education, Kharkiv, Ukraine*
*[2]Sizaycev V.t. Institute of General and Urgent Surgery Nams of Ukraine, Kharkiv, Ukraine*

***Background/Aims:*** The study goal was examining the role of Galectine-3 (Gal-3) in people with ischemic heart disease (IHD) and concomitant gastroesophageal reflux disease (GERD).

***Materials and Methods:*** The study was conducted with a total of 100 patients. First group included 60 patients (43 male, 17 female) aged 42 to 60 years old with IHD and concomitant nonerosive form of GERD. Second group included 40 patients (28 male, 12 female) aged 39 to 60 years old with IHD, but without concomitant comorbidites. Control group included 20 healthy participants of same age and gender (7 male, 13 female). IHD diagnosis was made according to ICD-10, 2013 European Society of Cardiology guidelines on the management of stable coronary artery disease; GERD diagnosis was made according to ICD-10 and The Montreal definition and classification of gastroesophageal reflux disease (2006). Quantitative measurement of human Galectin-3 was performed using enzyme-linked immunosorbent assay "Galectine-3" produced by Bender Systems (Austria). All collected data were entered into the electronic database; Statistical treatment was performed with variation and nonparametric biomedical statistics using Excel for Windows, Statistica 6.0 and SPSS Statistics statistical software. Statistical significance was determined using Student's t-test and Wilcoxon signed-rank test. The difference in results was considered statistically significant with P-value < 0.05.

***Results:*** Collected data are the evidence that galectin-3 levels are significantly higher in patients with Grade III stable angina pectoris compared to both Grade II and Grade I stable angina pectoris in both study groups. Gal-3 levels are also significantly dependent on hypertensive disease stage and severity, as shown by the measurements in both study groups. Significant increase in Gal-3 levels is found in patients with Stage IIA IHD as compared with both patients with Stage 0 and Stage 1 IHD, which is evidence for more pronounced heart failure in these patients, while Gal-3 levels in patients with Stage 1 IHD are significantly lower than in patients with Stage 0 IHD, but significantly higher than in patients with Stage IIA IHD.

***Conclusion:*** It is reasonable to use Galectin-3 biomarker to determine severity of heart failure in patients with cardiovascular diseases, as well as patients with gastroesofageal reflux disease accompanied by chronic heart failure development.

***Keywords:*** Gastroesophageal reflux disease, galectin-3, ischemic heart disease

---

***PP-47***

## *The role of endothelial dysfunction in patients with gastroesophageal reflux disease and concomitant ischemic heart disease*

**Alisa Vnukova[1], Aleksey Oparin[1], Stanislav Rybchynskyi[2]**

*[1]Kharkiv Medical Academy of Postgraduate Education, Kharkiv, Ukraine*
*[2]Sizaycev V.t. Institute of General and Urgent Surgery Nams of Ukraine, Kharkiv, Ukraine*

***Background/Aims:*** The present study was to investigate the role of endothelial dysfunction in the mechanisms of development of gastroesophageal reflux disease (GERD) in patients with ischemic heart disease (IHD).

***Materials and Methods:*** The study was conducted with a total of 100 patients. First group included 60 patients (43 male, 17 female) aged 42 to 60 years old with IHD and concomitant nonerosive form of GERD. Second group included 40 patients (28 male,12 female) aged 39 to 60 years old with IHD, but with no concomitant comorbidites. Control group included 20 healthy participants of same age and gender. IHD diagnosis was made according to 2013 European Society of Cardiology guidelines on the management of stable coronary artery disease; GERD diagnosis was made according to The Montreal definition and classification of gastroesophageal reflux disease (2006). Endothelial function assessment was performed by measurement of serum levels of endothelin-1 (ET-1) and nitric oxide (NO) metabolites. ET-1 level was measured using commercially available Endothelin-1 ELISA System kit, according to the manufacturer's protocol (Amersham Pharmacia Biotech, UK). Levels of stable NO metabolites (NO2 blood and NO2 + NO3 blood) was determined by spectrometry (Griess-Ilosvaya method).

All collected data were entered into the electronic database; statistical treatment was performed with variation and non-parametric biomedical statistics using Excel for Windows, Statistica 6.0.The difference in results was considered statistically significant with P-value < 0.05.

***Results:*** The mean values of ET-1 levels were as follows: 8.4±0.59 pmol/L in group 1 (IHD + GERD) and 4.2±0.25 pmol/L in group 2 (GERD), indicating significant increase in comparison with normal values of 1.93±0.24 pmol/L. The levels of ET-1 in control group were within the normal limits. The mean levels of stable NO metabolites were as follows: group 1, NO2 1.34±0.56 μmol/L and NO2+NO3 19.8±2.72 μmol/L; group 2, NO2 1.8±0.2 μmol/L and NO3+NO2 25.52±9.78 μmol/L. The results were indicative of significant decrease in the levels of stable NO metabolites when compared with normal values (NO2 2.8±0.22 μmol/L and NO2+NO3 31.50±3.05 μmol/L) and the control group.

***Conclusion:*** GERD patients with concomitant IHD presented with statistically significant increase in endothelin-1 levels and decrease in levels of stable nitric oxide metabolites as compared with GERD patients without comorbidity and the control group.

***Keywords:*** Gastroesophageal reflux disease, ischemic heart disease, endothelial dysfunction

---

***PP-48***

## *Use of L-carnitine in the treatment of non-alcoholic fatty liver disease*

**Vladimir Pyrochkin, Sofia Poliakova, Katsiaryna Adzinets, Sergei Litvinovich, Dzmitry Adzinets**

*Grodno State Medical University, Hrodna, Belarus*

***Background/Aims:*** Non-alcoholic fatty liver disease (NAFLD) – is an exchange disease with the accumulation of excess fat, it may activate an inflammatory response. Therapeutic measures should be directed to elimination of excessive ectopic fatty acids in the liver and the further development of the inflammatory process. One candidate drugs in the given direction is L-carnitine. To assess the dynamics of laboratory parameters in patients with NAFLD using L-carnitine.

***Materials and Methods:*** The study included 84 patients with NAFLD that daily intravenous infusions of L-carnitine were conducted at a dose of 1 g/day, diluted in 100 ml saline for 10 days. A prerequisite has been the absence of any additional drugs and correction of already assigned therapy to the adjustment period of use of L-carnitine. The duration of therapy was 10 days. After the treatment all patients had their laboratory tests carried out again.

***Results:*** After treatment with L-carnitine was observed a significant ($p < 0.05$) decrease in transaminases levels: Me of ALT decreased on 48 U/L (24%), Me of AST-29 U/L (20%). Among patients with steatohepatitis with minimal degree of activity was showed normalization of aminotransferase levels in 25 people (30%). Therapy allowed significantly ($p<0.05$) reduce levels of cholestatic syndrome: a decline Me of GGTP on 12 U/L (25%), Me of ALP-13 U/L (13%). The dynamics of lipid metabolism is decreasing Me of common cholesterol and triglyceride levels by 10% and 31%, respectively ($p<0,05$).

***Conclusion:*** Against the background of use of the L-carnitine drug at a dose of 1 g/day as a part of basic therapy in patients with steatohepatitis was observed improvement in the functional state of the liver. L-carnitine is well tolerated and has no side effects, so it can be recommended for treatment of NASH

***Keywords:*** Non-alcoholic fatty liver disease, L-carnitine, steatohepatitis

***PP-49***

## *Chylous ascitis revealing follicular lymphoma*

**Sarra Boukhris, Nabil Ben Chaabane, Leila Safer, Adnene Laatiri**

*Chu Monastir, Tunisia*

***Introduction:*** Chyloperitoneum, or chylous ascites, is a rare condition characterized by milky-appearing fluid with elevated triglyceride content. It is due to an interruption in the lymphatic system due either to an obstruction or to a post-traumatic wound. We report a case of revealing a follicular lymphoma.

***Case:*** A 53 Year-old man consulted for abdominal distension attributed to a chylous ascitis. Cervical lymphadenopathies were palpable. The abdominal scan revealed voluminous lumbar-aortal adenopathies with abundant ascites. The diagnosis of grade IV (Ann Arbor classification) follicular lymphoma was retained. The ascitis disappeared following chemotherapy.

***Conclusion:*** Chylous ascitis is a rare complication of lymphomas, secondary to the obstruction of the abdominal draining lymphatics. Treatment is the same as that of a hematologic malignancy.

***Keywords:*** Chyloperitoneum, follicular lymphoma

---

***PP-50***

## *The awareness of health care professionals for diagnosis and treatment of celiac disease compared with celiac patients*

**Farnoush Barzegar, Mohammad Rostami-nejad, Hamid Mohaghegh Shalmani, Amir Sadeghi, Mohammad Reza Zali**

*Gastroenterology and Liver Diseases Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran*

***Background/Aims:*** Clinicians play a crucial role in the diagnosis and management of celiac disease, so it is essential to ensure that they have the necessary knowledge to have a high quality clinical practice. In this study we assessed the knowledge of health care professionals and celiac patients regarding the diagnosis and treatment of celiac disease in an Iranian population.

***Materials and Methods:*** 190 clinicians (63.6% male) and 100 celiac disease patients (77% female) were recruited for this study and invited to complete a questionnaire. The patients were chosen from those who were attended to an educational meeting in September, 2017. Participants completed a questionnaire regarding the epidemiology, diagnosis and treatment of celiac disease. The questionnaires were scored and study data was analyzed using SPSS version 20.

***Results:*** The mean age of the participants in health care professionals and celiac patients was 42.3 and 39.2 years respectively. Analysis of data showed that except for awareness of cross contamination with gluten, the knowledge of health care professionals was significantly higher than patients with celiac disease regarding epidemiology, diagnosis and treatment ($p=0.001$).

***Conclusion:*** This study suggests that a significant proportion of health care professionals have a limited knowledge regarding the cross contamination of foods with gluten but their significant knowledge in diagnosis and treatment may lead to improvements in patients' health.

***Keywords:*** Knowledge, health care professionals, celiac patients, diagnosis, treatment, Iranian population

***PP-51***

## *The knowledge of celiac patients and specialists for diagnosis and treatment of celiac disease*

**Farnoush Barzegar, Mohammad Rostami-nejad, Hamid Mohaghegh Shalmani, Amir Sadeghi, Mohammad Reza Zali**

*Gastroenterology and Liver Diseases Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran*

***Background/Aims:*** Clinicians play a crucial role in the diagnosis and management of celiac disease, so it is essential to ensure that they have the necessary knowledge to have a high quality clinical practice. In this study we assessed the knowledge of health care professionals and celiac patients regarding the diagnosis and treatment of celiac disease in an Iranian population.

***Materials and Methods:*** 190 clinicians (63.6% male) and 100 celiac disease patients (77% female) were recruited for this study and invited to complete a questionnaire. The patients were chosen from those who were attended to an educational meeting in September, 2017. Participants completed a questionnaire regarding the epidemiology, diagnosis and treatment of celiac disease. The questionnaires were scored and study data was analyzed using SPSS version 20.

***Results:*** The mean age of the participants in health care professionals and celiac patients was 42.3 and 39.2 years respectively. Analysis of data showed that except for awareness of cross contamination with gluten, the knowledge of health care professionals was significantly higher than patients with celiac disease regarding epidemiology, diagnosis and treatment (p=0.001).

***Conclusion:*** This study suggests that a significant proportion of health care professionals have a limited knowledge regarding the cross contamination of foods with gluten but their significant knowledge in diagnosis and treatment may lead to improvements in patients' health.

***Keywords:*** Knowledge, health care professionals, celiac patients, diagnosis, treatment

---

***PP-52***

## *Acute pancreatitis revealing primary hyperparathyroidism complicated by brown tumor*

**El Moufid Houda[1], Oukelmoun Mariam[3], Alami Jaafar[1], Mohammadi Mohammed[1], El Baroudi Saad[3], Lachkar Hassan[2]**

*[1]Hepatogastroenterology Service, Cheikh Zayd University Hospital, Uiass Rabat-maroc, Dubai, UAE*
*[2]Endocrinology, Internal Medicine, Hopital Cheikh Zayd, Uiass, Rabat-maroc, Dubai, UAE*
*[3]Visceral Surgery And Oncology Service, Hopital Cheikh Zayd, Uiass, Rabat-maroc, Dubai, UAE*

Hypercalcemic primary hyperparathyroidism (PHP) can complicate pancreatitis. pancreatitis can be exceptionally the mode revealing this endocrinopathy as reported in this observation. Observation: 52-year-old patient with a history of mandibular pain, admitted to emergency for gastrointestinal tract acute abdominal pain and vomiting. Clinical examination and radiological exploration pose the diagnosis of pancreatitis. The rate of lipasemia was 7x Normal. Pancreatitis was classified as stage B of Balthazar at abdominal CT scan. She was alithiasic with cholangiography. After eliminating the other classic causes of pancreatitis and the triglyceride level that was normal. Etiological research reveals a profile of primary hyperparathyroidism. PTH 2416pg/mL (15-65), hypercalcemia 200 mg/L (85-105),Cervical ultrasound was normal, a 23mm intrathoracic parathyroid nodule fixing to scintigraphy MIBI. the exploration of mandibular pain reveals a lytic bone lésion whish the biopsy shows an histological aspect in favor of brown tumor. The patient enhanced rehydration followed by infusion of bisphosphonate. He was referred to surgery. Conclusion The association between PHP and pancreatitis is more than fortuitous. Although the pathophysiology of hypercalcemia involvement of the PHP is not fully understood, the experimental data argue for the direct

or indirect role of hypercalcemia via activation of pancreatic proteases. Acute pancreatitis may be indicative of PHP. PHP is a curable cause of pancreatitis. It is therefore necessary to search systematically an PHP by the simple determination of the calcemia in front of any alithiasic pancreatitis.

***Keywords:*** Pancreatitis, hypeparathyroidism, brown tumor

---

***PP-53***

## *Different approaches to digestive reconstruction during pancreatoduodenal resection*

**Maksim Evseev**

*Clinical Hospital №1" (volyn) of the Office of the President of the Russian Federation, Russia*

***Background/Aims:*** The frequency of early postoperative complications and unsatisfactory functional results after pancreatoduodenal resection (PDR) remains high, what is the reason for the search the optimal variant of digestive reconstruction.

***Materials and Methods:*** The prospective analysis of results of 73 PDR for the period 2016-2017 was carried out. The choice of reconstruction did not depend on the nature and localization of the pathological process and was represented by the five variants: I) gastroenteroanastomosis (GEA), double-row pancreaticoenteroanastomosis (PEA), hepaticoenteroastomosis (HEA) on a single loop of the small bowel (classical version of Whipple's procedure); II) PEA and HEA on Roux-loop of the small intestine (double-row PEA, J. Cameron's version of PEA); III) PEA and HEA on two Roux-loops of the small intestine; IV) pancreaticogastroanastomosis (PGA) and HEA in the Roux-loop; V) L. Blumgart's version of PEA and HEA on Roux-loop. In 46 patients all anastomosis were manual performed; in 27 patients GEA by linear stapler was performed.

***Results:*** The leakage of PEA occurred in 17.8% patients: in 63.6% patients after I variant of reconstruction, in 23.5% after II variants, in 18.2% after III variants. Leakage of PGA and PEA for L. Blumgart were not established. Leakage of HEA occurred in 4.1% (I, II and III variants), having in all cases bile expiration by drainage. Relaparotomy was carried out in 10.9%. The intra-abdominal complications was 26.0%. Postoperative mortality was 5.4%. In the first 6 months after surgery 21.9% patients had signs of post-gastrectomy syndrome (PGRS): peptic ulcer in 6.8%, serious dyspepsia in 15.1%. PGRS developed in 54.5% after I variant, in 17.6% after II variant, in 18.2% after III variant, in 21.1% after IV variant and in 18.8% after V variant. Signs of cholangitis occurred in 45.5% after I variant. The occurrence of PGRS did not depend on the way GEA's formation, but in all cases of PRGS were antrumectomy or hemigastrectomy performed and length of the Roux-loop was less than 40 cm.

***Conclusion:*** The best results after PDR are accompanied by PGA, L. Blumgart's PEA and HEA on Roux-loop. Did not affect the results: manual or stapler formation of anastomosis, separate loops for PEA and HEA. To prevent of peptic ulcers and dyspepsia 2/3-3/4 of the stomach and length of the efferent loop 40 cm and more are needed

***Keywords:*** Pancreatoduodenal resection reconstruction

---

***PP-54***

## *Efficacy of vitamin B6 supplementation on inflammatory markers, serum homocysteine level, fecal calprotectin and clinical outcomes among patients with ulcerative colitis: A randomized double blind clinical trial*

**Pezhman Alavinejad, Seyed Ali Mard, Fatemeh Panahandeh, Saeed Hesam, Seyed Jalal Hashemi, Mehrnaz Morvaridi, Sanaz Taherpour**

*Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

***Background/Aims:*** To evaluate the efficacy of vitamin B6 supplementation on laboratory markers and clinical outcomes in patients with ulcerative colitis.

***Materials and Methods:*** In this double-blind placebo-controlled randomized clinical trial ulcerative colitis Patients were randomly divided into two groups, intervention (usual treatment plus vitamin B6 (40 mg/day)) and placebo group (usual treatment plus placebo). The serum levels of inflammatory markers measured and compared at the beginning and the end of intervention.

***Results:*** Overall forty patients were randomly selected to participate in this trial. Age range of participants was between 25-65 years and 3.43% of patients (13 cases) were male. Baseline characteristics of two groups were equal. The mean serum level of homocysteine after intervention in placebo and Vitamin B6 groups were 9.05±3.45 and 16.31±20.52 respectively (p=0.205). There were no significant differences between serum levels of homocysteine, CRP (p=0.328), ESR (p=0.329), Calprotectin (p=0.683) and frequency of defecation after 6 months intervention in univariate analysis. In multivariate analysis frequency of defecation wassignificantly greater in vitamin B6 group in comparison with placebo group (p=0.01).

***Conclusion:*** We couldn't find any significant effect of vitamin B6 supplementation on duration and severity of ulcerative colitis and even frequency of defecation in vitamin B6 group increased.

***Keywords:*** Ulcerative colitis, vitamin B6, serum homocysteine

---

***PP-55***

## *Evaluation of IL-12A, IL-12B, IL-23A AND IL-27 MRNA expression level genes in peripheral mononuclear cells of inflammatory bowel disease patients in an Iranian population*

**Mohsen Norouzinia[1], Vahid Chaleshi[2], Samaneh Alinaghi[3], Saeedeh Sadat Beheshti Shirazi[4], Mahyar Nourian[4]**

*[1]Gastroenterology and Liver Diseases Research Center, Research Institute For Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[2]Basic and Molecular Epidemiology of Gastrointestinal Disorders Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[3]Foodborne and Waterborne Diseases Research Center, Research Institute For Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[4]Proteomics Research Center, Faculty of Paramedical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Aim of this study was to compare the gene expression of Interleukin 12 members in two phase of IBD. The main cause of IBD remains unclear. Crohns disease (CD) and ulcerative colitis (UC) are the two deferent types of IBD. Inflammatory bowel disease (IBD) is a well-known gastrointestinal disorder in the world that fluctuates between remission and flare-up phases. Each of these phases has an individual immune system response profile.

***Materials and Methods:*** The patients included this study from 400 patients whom admitted to the IBD clinicbetween December 2017 and June 2018. All the participants were well informed about the tests progress and their clinical data was obtained by reviewing and completing a standard Questionnaire application. Patients were divided into three categories based on 1) the phase of the disease, 2) the type of IBD, Ulcerative colitis (UC) or Crohns disease (CD), and 3) the therapeutic pathways. Using the real-time PCR method, the expression levels of IL-12A, IL-12B, IL-23A, and IL-27 were examined in the peripheral blood mononuclear cell (PBMC) and compared to the pre-described subgroups.

***Results:*** The data showed up regulation in the expression levels of IL-12A and IL-12B in the remission phase in comparison with the flare-up. The examination of the expression levels in the target genes among the remission and flare-up phases of the IBD patients showed marked increased in the mRNA contents of IL-12A (p=0.003). However, no significant changes were obtained from the evaluation of IL-23A and IL-27.

***Conclusion:*** Our results showed that expression patterns of the IL-12A and IL-12B genes varied between the remission and flare-up phases for the IBD patients, and may be considered as potential biomarkers for the detection and the classification of IBD cases. In the other hand, the development of various new therapies that have different mechanisms of action there is an interest in better characterizing patients and selecting those who may respond preferentially to specific treatments.

***Keywords:*** Flare-up phase, inflammatory bowel disease, interleukins, remission phase, interleukins, gene expression

***PP-56***

## *Investigation of changes in the enzymatic function of the liver of rabbits, caused by established exogenous and endogenous toxicosis*

**Vagif Shadlinski, Hijran Khidirova**

*Azerbaijan Medical University, Baku, Azerbaijan*

***Background/Aims:*** Identify changes in the enzymatic function of the liver by creating a model of exogenous and endogenous intoxication in the experiment.

***Materials and Methods:*** The experiments were conducted on 48 rabbits of the genus «Chinchilla».Rabbits were divided into three groups:rabbits included in group I,were subjected to intoxication by inhalation of HCl vapor.In rabbits included in the 2nd group,a model of intestinal obstruction was created.Speaking about the experimental animals included in group III,it should be noted that they also created a model of exotoxicosis and the solution riditox was introduced into the abdominal cavity.Rabbits for the control group were intact,and the results obtained from them were considered normal.The activity of the enzymes aspartate aminotransferase(AsAT), alanine aminotransferase(AsAT) and lactate dehydrogenase(LDH) was determined n the blood of rabbits using a «Bioscreen MS 2000» microanalyzer.

***Results:*** The results showed that intoxication caused by inhalation of HCl impairs the antitoxic function of the liver, and the resulting toxic substances have a negative effect on the synthesis of liver enzymes. This is manifested in the dynamics of the activity of the enzymes AsAT,AlAT and LDH in the blood.Thus, the activity of the AsAT enzyme in the blood during HCl intoxication was on average increased by 2.1-2.5 times or 110.4-149.4%, AlAT activity increased 1.6-2.5times or 104.2-148.1%. However, the activity of the LDH enzyme in the experiment increased by only 8.8-27.8%.Similar results were observed in the dynamics of intestinal obstruction.

***Conclusion:*** It was concluded that intoxication of both exogenous and endogenous origin causes a significant impairment of enzyme synthesis in the liver. Thus, activation of all three enzymes(AsAT, AlAT, LDH) in the blood was observed when inhaling HCl vapors(exotoxicosis), as well as in case of intestinal obstruction(endotoxicosis).However, the activity of the LDH enzyme increased insignificantly compared to AsAT and AlAT.

***Keywords:*** Exogenous and endogenous intoxication, intestinal obstruction, liver

***PP-57***

## *Efficacy of education, continuous monitoring and nutritional care on quality of life of cirrhotic patients and reducing of liver cirrhosis complications*

**Pezhman Alavinejad, Eskandar Hajiani, Baharak Danyaee, Mehrnaz Morvaridi**

*Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

***Background/Aims:*** To determine the effects of an educational awareness program and continuous monitoring on quality of life (QOL) among cirrhotic patients and their complications.

***Materials and Methods:*** Overall 18 cirrhotic patients included. An educational awareness program including a face-to-face training session, providing a guide booklet about caring of the liver cirrhosis, consulting with dietician and continuous monitoring of patients every other week was conducted and the patients followed for 6 months. The QOL, awareness score, complications of liver disease, severity of disease by using MELD score and laboratory parameters were evaluated at baseline and at the end of intervention.

***Results:*** At the end of the intervention, the prevalence of complications, including edema, ascites, hepatic encephalopathy, variceal bleeding and hospitalization rate were significantly decreased compare to baseline ($p<0.05$). The average scores of awareness and QOL improved significantly (52.78±20.36 to 88.89±10.49; $p=0.0001$ and 141.89±20.40 vs. 182.72±10.27; $p=0.0001$ respectively). The laboratory parameters and the severity of the disease did not show any significant changes at the end of the study ($p>0.05$).

***Conclusion:*** Using a simple educational program can significantly improve not only cirrhoticsawareness and QOL but also reduce complications and duration of hospitalization which could be cost effective and worth to try among cirrhotics.

***Keywords:*** Education, liver cirrhosis, awareness, quality of life

---

***PP-58***

## *Efficacy of probiotics for prevention of small intestinal bacterial overgrowth (SIBO) recurrence among patients with irritable bowel syndrome (IBS)*

**Abdol Rahim Masjedizadeh, Pezhman Alavinejad, Sam Shahinzadeh**

*Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

***Background/Aims:*** To evaluate the probiotics' efficacy in prevention of small intestinal bacterial overgrowth (SIBO) recurrence among patients with IBS.

***Materials and Methods:*** In a double blind clinical trial, patients with IBS and SIBO who were diagnosed based on positive Hydrogen breath test, initially received antibiotics for a period of 10 days and then randomly divided into 2 groups (Mutaflor probiotic and placebo) after confirmation of negative Hydrogen breath test. After 3 months treatment, breath tests were repeated and frequency of SIBO recurrence was compared between 2 groups.

***Results:*** Among 172 patients with IBS and SIBO, 159 cases included the study and after antibiotic treatment and negative breath tests, eventually 156 patients were analyzed. Both groups had similar demographic characters such as age, sex, IBS type and PPI consumption. Frequency of SIBO recurrence were significantly lower in the probiotic group than the placebo group ($p=0.033$). Frequency rate of constipation and mixed type of IBS were almost similar in both groups ($p>0.05$) and only there was a significant difference in SIBO frequency between 2 groups as diarrhea dominant IBS ($p<0.05$).

***Conclusion:*** Our study showed that Mutaflor probiotic has beneficial effects on reduction of SIBO recurrence among IBS patients and could be successfully used for treatment of these patients.

***Keywords:*** Irritable bowel syndrome, small ıntestinal bacterial overgrowth, probiotic

***PP-59***

## *Study of the gut enterotypes in some Egyptian patients with type 1 diabetes mellitus*

**Amany Elbanna, Shwikar Ahmed, Ahmed Ellakany, Kamel Rohoma, Moamen Fawzy**

*Alexandeia University Faculty of Medicine, Governorate, Egypt*

***Background/Aims:*** Gut microbiota cluster into three enterotypes named the Bacteroidetes, Pravotella, and Rhuminococcus. While each persons microbial fingerprint is unique, there are specific patterns seen in those that are healthy and those that have specific illnesses. The aim of the study was to identify the enterotypes that are possibly associated with type I Diabetes Mellitus Egyptian patients as well as their possible role in the course of the disease.

***Materials and Methods:*** The study included 40 patients with type I Diabetes Mellitus(TIDM) and 30 volunteers of matched age and sex as control group. Stool specimens were taken from each. Quantitative SYBR Green Real Time PCR was done for the identificatipn and quantitation of Bacteroides, Pravotella and Ruminococcus which constitute the core of the three major enterotypes.

***Results:*** Enterotype I was the most common enterotype detected in TIDM patients and in control (75% vs 65% respectively) with no significant difference between the two groups (p=0.418). Regarding Enterotype 2, no significant differences was found between TIDM patients and control group (25% vs 35% respectively) (p=0.324). As regards enterotype 3, it was neither detected in TIDM patients nor in control group.

***Conclusion:*** There was no significant difference in the distribution of enterotypes in both study groups. Therefore collapsing the whole microbiome variations into dominant enterotypes was not appropriate to identify disease association or to be used as a disease biomarker.

***Keywords:*** Gut enterotypes, type ı mellitusdiabetes, bacteroides, pravotella, ruminococcus

---

***PP-60***

## *Intestinal carriage of ESBL-E in pediatric unit of an University Hospital Center in Madagascar*

**Rakotomalala Rivo[1], Rahariniainasoa Annie[1], Rakotonindrina Francine[1], Rakotondranosy Miarinivo[1], Rabenandrianina Tahirimalala[1], Rajaonatahiana Davidra[3], Andrianarimanana Diavolana[3], Tiandaza Odilon[3], Rakoto Alson Olivat[2], Rasamindrakotroka Andry[2]**

*[1]Uhc Zafisaona Gabriel, Mahajanga, Madagascar*
*[2]Faculty of Medicine in Antananarivo, Antananarivo, Madagascar*
*[3]Faculty of Medicine in Mahajanga, Mahajanga, Madagascar*

***Background/Aims:*** The emergence of extended spectrum beta-lactamases producing enterobacteriaceae (ESBL-E) to antimicrobials is a health problem. The aims of this study were to determine the prevalence of ESBL-E on community settings, to investigate relationship between ESBL-E and gender, age or the reasons of admission.

***Materials and Methods:*** It was a cross-sectional, and descriptive investigation of the intestinal carriage of ESBL-E within pediatric unit of the UHC Zafisaona Gabriel (ZAGA) in Mahajanga in Madagascar starting from November 2017 to May 2018. Faecal samples were collected from rectal swab and cultured in the laboratory of the hospital for screening ESBL-E. Patients recruited were mostly children aged 2 and above. Sample collection took place within the first 48 hours of their admission.

***Results:*** In whole, 46 individuals were studied, 37% of whom were carriers of ESBL-E. The sex-ratio of ESBL-E carriers was of 0.9. Age brackets between 10 to 15 were mostly affected (41%). The most reasons of admission of those children who carried ESBL-E were: digestive (35%), infectious (23%) and haematological (18%) (p>0,05). The period of hospital stay for these ESBL-E carriers vary from 2 to 10 days. The only major risk factor to intestinal carriage of ESBL-E was the intake of antibiotics all along the past three months (p<0,05). No relation was established either between ESBL-E occurrence and gender, or age and previous admission (p>0,05). Isolates bacteria detected were *Escherichia coli* (47%), *Klebsiella* (41%) and *Citrobacter koseri* (12%). In this study, 63% (n=29) of enterobacteriaceae were sensitive to third generation Cephalosporin. On the opposite, 96% (n=44) of the enterobacteriaceae were resistant to the combination of amoxicillin-clavulanate.

***Conclusion:*** One out of three children admitted in pediatric unit carried ESBL-E. The above results reported that in Mahajanga the prevalence of the intestinal carriage of ESBL-E is high. It reflects how antimicrobial drugs are managed on children. Effectively, hospital is a sensitive setting and could easily be contaminated by community-acquired ESBL-E and becoming a risk factor of nosocomial infection.

***Keywords:*** ESBL-E, children, intestinal carriage

---

***PP-61***

## *Ferritin level and helicobacter pylori positivity in pediatric patients*

**Mozhgan Zahmatkeshan[1], Mehran Karimi[1], Bita Geramizadeh[1], Somayeh Eslaminasab[1], Ali Reza Safarpour[1], Atefeh Esmailnejad[2]**

*[1]Shiraz University of Medical Sciences, Shiraz, Iran*
*[2]Shiraz University, Shiraz, Iran*

***Background/Aims:*** Iron deficiency anemia is the most common nutritional deficiencies around the world. Several factors are responsible for high prevalence of such deficiency. Several studies have shown that patients suffering from *Helicobacter pylori* infection have also higher prevalence of iron deficiency anemia. The relationship between *Helicobacter pylori* infection and iron deficiency anemia was investigated in school-aged children of Iranian population.

***Materials and Methods:*** The study was performed in 71 pediatric patients (<18 years of age) in Shiraz University of Medical Sciences, Shiraz, Iran between November 2016 to May 2017. All the patients were referred with dyspepsia, epigastric and vague abdominal pain and were scheduled for upper gastrointestinal endoscopy and *H. Pylori* infection testing. Hematological indices including hemoglobin, MCV, serum ferritin, serum iron and TIBC were compared between *H. pylori* positive and negative patients.

***Results:*** *H. pylori* infection was detected in 59.1% (n=42) of referred patients. Number of iron deficiency anemia was comparable between *H. pylori* positive and negative patients ($p$=0.48). While serum level of hemoglobin was significantly different between two study groups. There were no more significant differences regarding serum level of ferritin, iron, MCV and TIBC between *H. pylori* positive and negative patients.

***Conclusion:*** No significant association was found between *H. pylori* infection and iron deficiency anemia in pediatrics.

***Keywords:*** *Helicobacter pylori*; iron deficiency anemia, pediatrics

---

***PP-62***

## *An evaluation of the dysphagia service at northampton general hospital*

**Adeel Hamad, Natasha Clarke, Sue Kells, Iqbal Khan**

*Northampton General Hospital, Northampton, UK*

***Background/Aims:*** The dysphagia service is a priority service introduced at the Northampton General Hospital (NGH) for patients with advanced dysphagia (grade 3-4) in 2010. Main aim of this service has been to provide palliative patients with upper GI cancer rapid and timely access to the endoscopy services. Through this service the patients may directly access endoscopy services if they develop dysphagia (Grade 3-4) by calling the dysphagia co-ordinator. The aim of this audit is to assess and evaluate the effectiveness of the dysphagia service at NGH.

***Materials and Methods:*** Patients who had accessed the dysphagia service were identified by the GI cancer clinical nurse specialist. The cases were then reviewed retrospectively and prospective data collection underway. Data was collected on patients' demographics, referral route, hospital admission, time between referral and accessing endoscopic facilities, and the endoscopic intervention carried out.

***Results:*** 15 patients had a total 60 endoscopic episodes. Average age of the patients accessing the service was 77 years 46.5% (n=7) patients were male and 53.3% (n=8) were female. 57 of these episodes were as an outpatient (95%) and 3 (5%) of these episodes were as an inpatient. 5.2% of these outpatient appointments had an admission. The average time between referral and endoscopic intervention was 7.5 days, maximum waiting time was 15 days and minimal time period was 0 days. 6.6% (4) of the patients had APC and Dilation or APC only, 3.3% (2) had PEG Insertion, 60% (36) had stent insertion or reinsertion or modulation. 73.3% of the procedures had successful outcome or the aim was met.

***Conclusion:*** Compared to the previous audit it shows that although 'Dysphagia Service' allows palliative care patients (with upper GI cancer) to have easy access to endoscopy and minimised the need for hospital admission the waiting time during last 2 years has increased due to shortage of staff and logistical constraints

***Keywords:*** Dysphagia, oesophageal cancer, endoscopy

---

***PP-63***

## *Clinicopathological aspects of hepatocellular carcinoma in Algeria: Single-center study of 338 cases*

**Chikhi Yazid, Lounes Fadila, Cheraitia Salima, Ouldgougam Rachid, Zemmouchi Chahrazed, Kouihal Wassila, Benmaouche Nabila, Lahcene Mustapha**

*Faculte De Medecine Dalger, Ben Aknoun, Algeria*

***Background/Aim:*** Hepatocellular carcinoma (HCC) is one of the commonest liver cancers in the world, develops mainly in liver cirrhosis. Low socioeconomic status is a major risk factor for cirrhosis as well as HCC. In Algeria, cirrhosis is associated with a chronic viral infection B or C in 90% of cases. The prevalence of HBsAg is about 2.15% and that of HCV infection at least 1%. The aim of our study was to determine the epidemiological, etiological HCC to provide an optimal care.

***Materials and Methods:*** It is about a descriptive prospectively study, over eight years period, between January 2008 and December 2016, 338 HCC patients were admitted at single center: Bologhine Algiers Hospital. The diagnosis of HCC was based on non-invasive criteria of Barcelona or pathology.

***Results:*** 338 cases of HCC were included, 205 men and 133 women (sex ratio 1.54), middle age is 63.8±11.4 years (17-84 years), 15.7 % patients were diabetics. Underlying cirrhosis or chronic liver disease was found in 317 cases (93.7%) and a healthy liver 21 cases (6.2%). The commonest etiology was hepatitis C (45 %) followed by hepatitis B (23%) and not metabolic pathologies (6.8%). In 21.9 % cases the HCC was discovered during a protocol screening. The diagnosis is revealed by pain in the right hypochondrium (47.6%), impaired general condition (21.6%), liver tumor (29.2%), jaundice (10.9%). The alpha-fetoprotein level was above 400 ng/mL in 29.4 % of cases and tumors were already multinodular in scanner at diagnosis in 31 % of patients. Our CHC were in most cases stages C and D (BCLC classification).

***Conclusion:*** This study reveals the late diagnosis of HCC, the time has changed little despite the application of screening recommendations and the necessity of a national program to fight against viral hepatitis.

***Keywords:*** Hepatocarcinome, hepatit virus C, Algeria, epidemiology

---

***PP-64***

## *Orthotopic liver transplantation in neonatal biliary atresia: a 16-years single center study from Iran*

**Mozhgan Shams Seyed Mohsen Dehghani Masood Sepehrimanesh[1], Atefeh Esmailnejad[2], Ali Reza Safarpour[3], Seyed Ali Malekhosseini[3]**

*[1]3. Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran*
*[2]Shiraz University, Shiraz, Iran*
*[3]Shiraz University of Medical Sciences, Shiraz, Iran*

***Background/Aims:*** Biliary atresia (BA) is an idiopathic progressive process which can lead to the defect in bile flow and produces several clinical and paraclinical signs and symptoms that finally induce hepatic failure. Orthotopic liver transplantation (OLT) is a standard therapy for biliary atresia. This study aimed to evaluate16-years' experience with pediatric OLT in treatment of Biliary atresia in Iran.

***Materials and Methods:*** Ninety four infants and children who underwent OLT for BA from April 1999 to October 2016 included in this study. Pre-transplantation status, early and late complications, and survival were evaluated. The Kaplan-Meier method used to estimate survival as a function of time, and survival differences evaluated by the log-rank test. Final regression model fitted according to Cox proportional hazard regression analysis.

***Results:*** Our patients included 53 boys (56.4%) and 41 girls (43.6%) with mean and SD of age of 3.44±3.42 years (range 5.50 months to 16.00 years) and among them, 44 patients had age lower than 2 years. The most pre-transplant complication was jaundice (55 patients, 58.5%).The most donating pathway were mother to son liver transplantation (26 cases, 27.7%). The most causes of re-operation (45case, 47.9%) were hepatic artery thrombosis (10 case 10.6%) and portal vein thrombosis (13 cases, 13.8%). the most common late complications were infection (25 cases, 26.6%) and rejection 15 cases, 16%). Renal failure plus sepsis (5 cases, 5.31%) and portal vein thrombosis (4 cases, 4.25%) and bowel perforation(5 cases, 5.31%) were the most common causes of death (14 cases of 34, 41.1% of total mortality). Thirty four cases were expired (36.2%). The median time of survival for boys was 8.7 years and for girl 6.25 years. In univariate analysis statistical significant associations with higher survival time were detected between recipient age (p=0.024), sex (p=0.010), weight (p=0.021), PELD score (p=0.020), re-transplantation (0.009). In multiple variable cox regression, sex and PELD score were remain in final model (HR=2.50, 95%CI: 1.12-5.72, p=0.026, and HR=1.08, 95% CI: 1.01-1.09, p=0.008 respectively).

***Conclusion:*** Although, the organ shortage in our area led to liberal use of living related and split-liver techniques but the overall results of pediatric OLT in Iran were acceptable.

***Keywords:*** Biliary atresia, liver transplantation, survival time

---

***PP-65***

## *Moscow systematizing classification of multifocal lesions of the mucous membrane of gastrointestinal tract with non-steroidal anti-inflammatory and antithrombotic drugs*

**Leonid Lazebnik[1], Galina Belova[2]**

*[1]Outpatient Therapy, Moscow State University of Medicine and Dentistry, Moscow, Russia*
*[2]Outpatient Therapy, Multidisciplinary Medical Center of The Bank of Russia, Russia*

***Background/Aims:*** To introduce the systematizing classification of multifocal gastrointestinal lesions against the NSAIDs and ATPs treatment convenient for practical use.

***Materials and Methods:*** Based on our own practical experience and analyzing the multi data from PubMed, Cochrane Library, MDConsult, DynaMed, Google Scholar we develope the classification of type of multifocal gastrointestinal lesions.

***Results:*** The developed classification is a "formula" in the form of alphanumeric characters and a subsequent cascade, which includes stratification of the risk of recurrence of bleeding and thromboembolism. The General scale includes: GIT part title: E-Esophagus, G-Gaster, D-Duodenum, I-Intestine, C-Colon); endoscopy data: 0-no change, I-"reddned lesions"; II-ulcers; III-corrhaging tumors and polyps; ?-no examination of the GIT; type of bleeding in the lesion focus: a-ongoing, b-recent bleeding illness. Examples of a common scale: *E0G0D0I0C*0 or *E0G0DII?C*IIIb. Clarifying scale includes: severity of blood loss (Rockall): A0-no bleeding, A1-mild bleeding, A2-medium severity of blood loss, A3-severe blood loss, A4-relapse bleeding; level of risk of thromboembolic complications: T1-low, T2-intermediate, T3-high. Examples of the Formula are the extended (refining) scale: *E*IA0T3 or *C*IIa A3. The HAS-BLED and CHA2DS2-VASc scales are generally accepted for the stratification of bleeding and thromboembolism risks. They have the similar maximum value of the scoring values 9, which allows to determine the zone of the greatest risk for the purpose of correction.

***Conclusion:*** The developed classification refers to the model of medicine "Three P": personified, preventive and predictive. Where a simple formula takes into account a significant number of gender, functional and clinical-laboratory indicators. The "Moscow classification" use refers to the decision-support system for management of patients with complex comorbid pathology.

***Keywords:*** Multifocal gastrointestinal lesion, GI bleeding, NSAIDs and ATPs treatment

---

***PP-66***

## *Evaluation of the epigallocatechin gallate (green tea) efficacy on the serum levels of hepatic transaminases among patients with non-alcoholic fatty liver disease: A randomized single blind clinical trial*

**Pezhman Alavinejad[1], Narjes Zaeemzadeh[1], Seyed Ali Mard[1], Zahra Pourmousa[1], Farnaz Farsi[2]**

*[1]Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*
*[2]Iran University of Medical Sciences and Health Services, Iran*

***Background/Aims:*** To evaluate the efficacy of Epigallocatechin gallate (EGCG, green tea) on the serum levels of liver transaminases and inflammatory markers among NAFLD patients.

***Materials and Methods:*** In this clinical trial, patients who diagnosed with NAFLD during 3months period included and randomly divided into 2 groups: group A (intervention group) who received 390mg of green tea extract for 3 months and group B who received placebo as control group. The serum levels of liver transaminases, blood sugar, serum TG and cholesterol and inflammatory markers measured before and after intervention and the results of collected DATA compared between2 groups.

***Results:*** Overall 58 patients included (30 patients in group A and 28 cases as control group). At the end of the study, the green tea group showed a significant reduction in liver enzymes (aspartate aminotransferase (before45.76±18.63, after 33.79±12.27, $p<0.001$) alanine aminotransferase (before 77.1±35.87, after 53.8±18.26, $p<0.001$)) compared with the placebo group. The serum levels of triglycerides, total cholesterol and LDL had also a decrease among intervention group as compared to baseline while these changes were notsignificant in comparison with placebo group ($p=0.75$, 0.366 and 0.253 respectively).

***Conclusion:*** green tea has a positive effect of the serum levels of liver transaminases among NAFLD and could be a therapeutic approach or recommendable supplement for this group of patients.

***Keywords:*** NAFLD, liver transaminases, green tea

***PP-67***

## *Evaluation of celiac disease prevalence among patients suffering from refractory hypothyroidism*

**Pezhman Alavinejad, Hajiah Shahbazian, Alireza Jahanshahi, Mohammad Faramarzi, Mahdis Vakili**

*Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

***Background/Aims:*** The association of Celiac disease with refractory hypothyroidism is a known but less common condition. Aim of this study was to evaluate celiac disease prevalence among patients suffering from refractory hypothyroidism and to compare accuracy of different diagnostic procedures of celiac disease in these patients.

***Materials and Methods:*** During a 6 months period, Twenty four patients with refractory hypothyroidism were included from endocrinology outpatient clinics of Ahvaz Jundishapur University. For all of the participants, the serological profile of celiac disease including Anti TTG, Anti EMA and total IgA were determined and then they referred to perform an upper endoscopy and random biopsy of 1st and second part of duodenum performed.

***Results:*** The average duration of hypothyroidism in participants was 7 months and 75% (18 cases) were female. Mean age of males and females, was 31.3±17 and 34.3±8.5 years, respectively (age range 17 to53). Their average daily dosage of levothyroxine was 285.1±89.9 mcg. The most common co-diseases were anemia (81.8%) and diarrhea (25%). The most common serologic findings in these patients were positive anti-TTG (25%) and anti-EMA (16.6%). The most common findings of upper endoscopy were normal (36.4%), gastritis (25%), duodenal fissuring (8.3%), duodenal atrophy (8.3%) and duodenal erythema (8.3%). Based on results of pathology report, 33.3% (8 patients) were diagnosed with celiac disease (mostly Marsh 1 & 0). The sensitivity and specificity of TTG were 33% and 87.5% respectively. These percentages were different about EMA test and it was 11.1% for sensitivity and 87.5% for specificity.

***Conclusion:*** Based on results of this study, prevalence of celiac among cases of refractory hypothyroidism is higher than global reports and a routine screening of Celiac disease in thesepatients is highly recommended even with negative serology. Sensitivity and specificity of serologic tests in hypothyroidism patients are lower than patients with normal thyroid function and this can encourage physicians that even in case of negative serological results, evaluate patients for possibility of celiac disease by upper endoscopy and random duodenal biopsy.

***Keywords:*** Refractory hypothyroidism, celiac disease

---

***PP-68***

## *Demographic characters of IBS based on geographic variables like climate: An international multicentric survey*

**Pezhman Alavinejad[1], Parvin Mousavi Ghanavati[1], Mohamed Emara[2], Mohamed Alboraie[3], Siamak Baghaee[1], Bulent Baran[4], Naser Ebrahimi Daryani[5], Farnaz Farsi[6], Eskandar Hajiani[1], Seyed Jalal Hashemi[1], Elena Lak[7], Yasaman Taheri[1], Abhijit Dangi[8]**

*[1]Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*
*[2]Kafrelsheikh University, Kafr El Sheikh, Egypt*
*[3]Department of Internal Medicine, Al-azhar University, Cairo, Egypt*
*[4]Department of Gastroenterology, Koc University Hospital, Istanbul, Turkey*
*[5]Department of Gastroenterology, Tehran University of Medical Sciences, Tehran, Iran*
*[6]Colorectal Research Center, Iran University of Medical Sciences and Health Services, Tehran, Iran*
*[7]Imam Hosein Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[8]Haya Al-habeeb Gastroentrology Center, Mubarak Al-kabeer Hospital, Hawally, Kuwait*

***Background/Aims:*** To evaluate different aspects of IBS based on geographic variables like climate and culture.

***Materials and Methods:*** To evaluate characters of IBS patients by filling questionnaire in tertiary centers and compare its dominant patterns according to different climates and cultures.

***Results:*** Overall during 6 months period 509 IBS patients from 9 referral center in 4 countries included. 41.3% of participants were male (210 Cases) and 37.4% of them had academic education. Racially 54.9% of participants were Caucasian and 31.3% were Arab and originally they were citizens of 18 countries. 77.4% of participants were resident ofsubtropical areas while 22.2% were living in temperate regions. Average age of participantsduring first presentation in subtropical and temperate areas were 38.4±12.19 y and 38.06±12.18 y respectively (p=0.726). The most common sub types of IBS in subtropical areas were unclassified (IBS-U, 44.4%), constipation dominant (IBS-C, 27.6%), mixed pattern (IBS-M, 21%) and diarrhea dominant (IBS-D, 6.8%) in descending order while in temperate areas the most common subtypes were IBS-U (43.3%) and IBS-D (22.1%) respectively (p<0.001). Beside abdominal pain, the most common symptom of patients in each region was bloating (62.2% and 68.1% respectively, p=0.246). The rate of depression and anxiety were significantly higher among residents of temperate areas in comparison with subtropical regions (41.6% vs. 16.5% and 80.5% vs. 58.4% respectively, p<0.001)

***Conclusion:*** Although the average age of IBS presentation is the same in subtropical and temperate areas, it seems that in temperate areas, the rate of IBS-D is more prevalent than subtropical regions because the climate is more suitable for microorganisms growth.

***Keywords:*** IBS, subtropical areas, temperate regions, bloating

---

***PP-69***

## *Drug-induced liver injury after nsaids-therapy in gouty arthritis*

**Tatsiana Rayeuneva[1], Eleanora Mikhnevich[1], Katsiaryna Liaonchyk[2]**

*[1]Belarusian State Medical University, Minsk, Belarus*
*[2]5 City Clinical Hospital, Belarus*

***Background/Aims:*** In our research we decided to define the timing of DILI (drug-induced liver injury) formation after the treatment with nonsteroidal anti-inflammatory drugs (NSAIDs), and its severity in patients with gouty arthritis (GA).

***Materials and Methods:*** NSAIDs-induced liver damage is known to be mainly hepatocellular. Hepatocellular toxicity was determined according to the DILI classification criteria.

***Results:*** Among 738 patients with GA, 11.9% (n=88) developed the hepatotoxicity following the NSAIDs therapy. Minimal cytolysis was presented more frequently than more severe forms (p<0.05).

***Conclusion:*** In patients with GA, the hepatocellular DILI was observed in 11.9% cases after the treatment with NSAIDs during 10 days (from 6 to 14 days). Among patients with DILI, 84.1% (n=74) had NSAIDs-induced hepatitis with minimal cytolysis. Mild cytolysis was seen in 10 (11.4%), moderate in 4 patients (4.5%). No significant differences for particular drugs in the hepatotoxicity incidence have been found (p>0.05).

***Keywords:*** Liver injury, NSAIDs, DILI

***PP-70***

## *NUDT 15 C415T variation as a cause of azathioprine induced pancytopenia with severe sepsis*

**Prasanta Debnath, Pravin Rathi, Shubham Jain, Sujit Nair**

*TNMC & Byl Nair Charitable Hospital, Mumbai, India*

***Introduction:*** Thiopurines (i.e. azathioprine [AZA] and mercaptopurine, also known as 6-mercaptopurine, [6-MP]) exert a glucocorticoid-sparing effect for patients with inflammatory bowel disease (IBD) who cannot maintain remission when glucocorticoids are tapered and withdrawn. However, side-effects like leucopenia, pancytopenia limit its use in several conditions where immune suppression is required.

***Case:*** 17 year old Indian female presented with pancytopenia with neutropenic sepsis with alopecia after 3 weeks of starting Azathioprine for her underlying Crohn's disease. TPMT (*2, *3a, *3b, *3c) genotype revealed wild type genotype, whereas NUDT 15 (C415T) (TT) variant was positive. Based on the evidence, AZA administration was immediately stopped, started on broad spectrum antibiotics which lead to some clinical improvement initially, but later on patient developed intestinal obstruction along with post-operative complications leading to death.

***Conclusion:*** In this report, we present a case of Azathioprine toxicity with pancytopenia with severe sepsis in a young patient with homozygous NUDT 15 variant and wild type TPMT genotype. This case, along with recent researches enlightens us to consider NUDT 15 variant analysis before starting thiopurines in any patient, particularly in Asian population.

***Keywords:*** Azathioprine toxicity, Crohn's disease, NUDT 15, TPMT

---

***PP-71***

## *Spectrum of upper gastro intestinal bleeding in CLD, a single centre analysis in South India*

**Sajith Sebastian, Jenny Susan**

*Kerala Medical College, Kerala, India*

***Background/Aims:*** The etiology of upper gastrointestinal bleed in cirrhotics (UGIB) is variable in different geographical regions. Epidemiological data are helpful in knowing the burden of the problem. This study was conducted to know the spectrum, mortality, morbidity, and predictors of outcome in patients with Cirrhotics presenting with acute UGIB.

***Materials and Methods***: We retrospectively analyzed the data of patients admitted to our hospital between April 2017 and April 2018, with UGIB and cirrhosis and noted the clinical presentation, etiology of bleed, and outcome.

***Results:*** A total of 134 patients [112 (83.58%) male, 22 (16.41%) female (male: female ratio: 5:1)] of UGIB were included in the study. The mean age of the patients was 52.31±15.3 years (Range-37-85 years). The most common etiology of UGIB in cirrhotics was Variceal related (83.21%) followed by Erosive mucosal disease and Peptic ulcer related 28 (24.81%). Majority of patients were managed endoscopically. The mean duration of hospital stay was 6.6±5.79 days. Re bleeding was seen in 7 patients but None of them underwent surgery. In hospital, mortality was 2.6%. Age ≥65 years (odds ratio [OR]: 9.5, 95% confidence interval [CI]: 3.108-29.266), serum albumin 2 mg/dl (OR: 4.1, 95% CI: 1.068-8.591) were associated with increased mortality.

***Conclusion:*** Cirrhotics may present with non variceal sources of UGI bleeding though variceal bleeding is still the most common cause of UGIB. Rebleed rate, need for surgery, and mortality due to UGIB are declining. Elderly age (>65), hypoalbu-

minemia( serum albumin< 3mg/dl) and renal dysfunction (serum creatinine >2mg/dl)are important factors associated with increased mortality.

***Keywords:*** Cirrhosis, varices, upper gastrointestinal bleed

---

***PP-72***

## *Combining a mage-based autologous dendritic cell vaccine with anti-VEGF agents lead to clinical response in a patient with refractory metastatic gallbladder carcinoma*

**Yu Bin Tan, Rachel Hui Zhen Sim, Han Chong Toh**

*Singapore Health Services, Singapore*

A frail, elderly patient with metastatic gallbladder carcinoma expressing high tumor MAGE-A4 was treated with an experimental multiple MAGE antigen based autologous dendritic cell (DC) vaccine (institution compassionate use program) in combination with bevacizumab, achieving objective clinical response. Upon progression, he received anti-PD1 monoclonal antibody nivolumab alone but progressed on treatment. Soon after, he responded to thalidomide alone, then in combination with the MAGE lysate-pulsed DC vaccine. He achieved durable clinical response on these combination strategies and survived for over 2 years from the point of starting immunotherapy. Serial immune profiling of his blood showed a reduction of circulating myeloid cells corresponding to disease control while on the combination therapy. To our knowledge this is the first report of the combined use of anti-VEGF therapy bevacizumab, then thalidomide, with dendritic cell vaccination, resulting in meaningful disease control in a heavily-pretreated, progressing metastatic gallbladder cancer. The treatments were well tolerated and, overall, he enjoyed a good quality of life on treatment. Hence, immunotherapy in combination with anti-VEGF therapy was beneficial to the patient described and provides clinical rationale and compelling evidence for exploring this in refractory metastatic biliary tract cancer.

***Keywords:*** Dendritic cell vaccine, anti-angiogenesis, MAGE, gallbladder cancer

---

***PP-73***

## *Polymorphisms of the PPARG2 and ADRB2 genes in patients with non-alcoholic fatty liver disease and their association with eating disorders*

**Yana Nikiforova, Galina Fadieienko**

*GI Malaya Therapy National Institute of the National Academy of Medical Sciences of Ukraine, Ukraine*

***Background/Aims:*** At the present stage, one of the important tasks in the treatment of patients with non-alcoholic fatty liver disease (NAFLD) is the development of an effective therapeutic and dietary nutrition. One of the highest priorities is the Mediterranean type of nutrition, which, according to many researchers, contributes to the normalization of the main metabolic parameters in patients with NAFLD. However, when prescribing diet therapy, it is necessary to take into account the nutritional peculiarities of the population in different regions of the world, which will make it possible to predetermine the possible metabolic response to the use of certain nutrients and, therefore, to increase the effectiveness of dietary therapy with NAFLD. To study the nutritional features of patients with NAFLD and their relationship with eating disorders (ED).

***Materials and Methods:*** Fifty patients (26 men and 24 women) with NAFLD were examined. The control group consisted of 30 practically healthy patients reciprocating by sex and age. All patients studied the features of ED (DEBQ questionnaire), actual nutrition (food diary) and nutritional features — found 5 polymorphisms: Pro12Ala of the PPARG2 gene (rs1801282), 101027 gene of the ADRB2 gene (rs1042714), and Arg16Gly of the gene ADRB2 (1010282); (rs4994) and Thr54Ala of the FABP2 gene (rs1799883) associated with the risk of metabolic disorders.

***Results:*** Two polymorphisms have been identified that are associated with ED-Pro12Ala gene PPARG2 and Trp64Arg ADRB3 gene violations. Gender differences in the frequency of genotypes of the Pro12Ala polymorphism of the PPARG2 gene were not found (pχ2=0.90). 84.6% of men and 83.3% of women were carriers of the Pro12Pro genotype polymorphism of the PPARG2 gene (OR=1.10, CI=0.24-4.99), 15.12% of men and 16.7% of the Pro12Ala genotype women (OR=0.91, CI=0.20-4.13). The distribution of genotypes and allelic variants of the polymorphism of the ADRB3 gene had significant differences (pχ2=0.05). The Trp64Trp genotype of the ADRB3 gene polymorphism was found in 80.8% of men and 58.3% of women, the Trp64Arg genotype in 19.2% of men and 33.3% of women, the Arg64Arg genotype was found only in women. Analysis of the distribution of the 64Trp and 64Arg alleles depending on gender using a multiplicative model showed that the reliability of the association of the minor 64Arg female allele is confirmed by the odds ratio, which was 3.13 (CI=1.01-9.70) versus 0.32 (CI=0.10-0.99) for the minor allele. Women were significantly more likely to carry the metabolically unfavorable minor 64Arg allele of the Pro12Ala polymorphism of the ADRB3 gene (pχ2=0.04). A reliable association (pχ2=0.02) of a protective minor 12Ala allele with emotiogenic and restrictive types of ED (OR=0.11, CI=0.10-0.97) was established, while the external type of tilted ED is associated with the carrier of the major allele 12Pro polymorphism of the Pro12Ala gene PPARG2 (OR=8.71, CI=1.03-7.66). Analysis of the distribution of the 64Trp and 64Arg alleles depending on the type of ED violation showed a reliable association (pχ2=0.006) of the metabolically unfavorable minor 64Arg allele with the external type of ED violation (OR=5.53, CI=1.48-20.68), while the emotiogenic and restrictive types were associated with the carrier of the 64Trp major allele (OR=0.18, CI=0.05-0.68). In patients with NAFLD, the external type of ED violation prevails ($p < 0.05$). Disruption of ED carriers of the Pro12Ala and Trp64Arg polymorphisms was associated with disorders in actual nutrition, which are recognized as triggers for the development and progression of metabolic disorders.

***Conclusion:*** A study of the nutritional peculiarities of patients with non-alcoholic fatty liver disease has established the association of Pro12Ala polymorphisms of the PPARG2 gene and Trp64Arg of the ADRB3 gene with eating disorders. Women are significantly more likely to be carriers of the metabolically unfavorable minor 64Arg allele of the Pro12Ala polymorphism of the ADRB3 gene (pχ2=0.04). Thus, patients with NAFLD should be prescribed an individual correction of ED taking into account the identified nutritional features associated with the risk of progression and development of complications of NAFLD.

***Keywords:*** Polymorphisms, non-alcoholic fatty liver disease, eating disorders

---

***PP-74***

## *Comparison efficacy of three antibiotic regimes based on furazolidone, clarithromycin, and levofloxacin in helicobacter pylori treatment*

**Aliakbar Hajiaghamohammadi, Nazanin Gholinia**

*Qazvin University of Medical Science, Kazvin, Iran*

***Background/Aims:*** Helicobacter pylori is most common chronic bacterial infection in human. Despite high prevalence of HP infection in the world, optimal therapeutic regimen which can eradicate HP in all cases has not yet been defined.

***Materials and Methods:*** The study was a randomized clinical trial. Ninety patients with upper gastrointestinal symptoms with positive endoscopic finding of rapid urease test entered into study and divided into 3 groups. Group 1 were treated by pantoprazole (40mg BD), Amoxicillin (1gr BD) and clarithromycin (500 mg BD), Group 2 were treated by Two first drugs plus Levofloxacin (500mg daily) and group 3 were treated by Two first drugs plus Furazolidone (100md BD) for ten days and 14 days after treatment was completed every patient were tested by stool antigen for eradication study

***Results:*** HP eradication rate in Clarithromycin group was 55.55%,in Levofloxacin group was 82.11% and in Furazolidone was 72.41%, and in twin statistic comparison between these groups,infection eradication between Levofloxacin and Clarithromycin with ITT Value=0.032 and PP Value=0.015 had a significant difference but in statistic study between Furazolidone and Clarithromycin with ITT Value=0.114 and PP Value=0.08 and also between Furazolidone and Levofloxacin with Value=0.501 and ITT Value=0.559 there was no significant differences.

***Conclusion:*** It seems that due to other similar studies and Clarithromycin resistance in Iran it's better to use triple therapy based on Furazolidone or Levofloxacin or other quadruple therapies as first line treatment.

***Keywords:*** Helicobacter pylori, levofloxacin, clarithromycin, furasolidone

***PP-75***

## *Ulcer with adherent clot: Take off or respect?*

**Rim Benjira, Hakima Abid, Maria Lahlali, Asmae Lamine Sejai, Nada Lahmidani, Mounia Elyousfi, Mohammed Elabkari, Sidi Adil Ibrahimi, Dafr-allah Benajah**

*Hassan II University Hospital, Morocco*

***Background/Aims:*** Peptic ulcer is the main cause of upper gastrointestinal bleeding whose mortality remains quite significant. Its management has been remarkably advanced by endoscopic treatment whose indication remains guided by the Forrest classification. But for the adherent clot ulcers (IIb), the endoscopist has the choice between the detachment and the resepect of the clot. The aim of this work is to compare the two therapeutic attitudes while insisting on the recurrence and mortality.

***Materials and Methods:*** This is a retrospective study conducted between January 2001 and june 2019. During this period, we included the 138 cases of gastrointestinal bleeding secondary to a peptic ulcer with adherent clot. They were divided into 2 groups according to the therapeutic attitude: The first group included 59 patients, in whom the clot was taken off, and the second group included 79 patients in whom the clot was respected.

***Results:*** The mean age of our patients was 48.70 years [17-95], with a male predominance (sex ratio M/F=5.3).Nineteen patients (13.8%) were admitted with a hemorrhagic shock with a median hemoglobin of 8g/dl [2.5-12.4]. The ulcer was bulbar in 107 patients (77.5%). Fifty-five patients (40%) had an ulcer greater than 2 cm in size. All our patients received medical treatment with proton pump inhibitors (PPIs).In the first group, 36 patients (26%) received endoscopic treatment while 23 were entrusted to surgeons given the difficulty of endoscopic treatment. Among these patients, three patients (5%) recidivated: a patient has received a second endoscopic treatment, one died from an hemorrhagic shock and the third was operated and died postoperatively. While in the 2$^{nd}$ group, hemorrhagic recurrence was observed in 15 cases (19%): 3 patients died from haemorrhagic shock, 3 patients have undergone endoscopic treatment, 5patients were operated while fibroscopy redone in the remaining 4 patients did not show stigmata of bleeding (3 cases of stage IIc ulcer and a case of stage III ulcer). Within this group, there were 7 deaths (8.8%) in total: 2 patients died postoperatively, 2 cases of recurrence after endoscopic treatment performed in 2$^{nd}$ intention. Among the clinical, biological and endoscopic variables studied, an ulcer size exceeding 2 cm (p=0.013) and the respect of the adherent clot (p=0.019) are the 2factors associated with the occurrence of haemorrhagic recurrence.

***Conclusion:*** Our study shows that endoscopic treatment is more effective and has a better prognosis than just the medical treatment in the management of adherent clot ulcers especially in ulcers larger than 2cm.

***Keywords:*** Adherent clot/respect/take off/endoscopic treatment/effectiveness

***PP-76***

## *Quality of life in celiac patients in relation to the gluten-free diet and association with irritable bowel syndrome*

**Carolina Olano[1], Alejandra Arriola[1], Virginia Lopez[1], Ana Ines Galain[1], Ximena Rodriguez[1], Natalia Rodriguez[1], Laura Rovira[1], Juan Dapueto[2], Henry Cohen[1]**

[1]Clinica De Gastroenterología, Universidad de la República, Montevideo, Uruguay
[2]Departamento De Psicología Médica, Universidad de la República, Montevideo, Uruguay

***Background/Aims:*** Celiac Disease (CD) and Irritable Bowel Syndrome (IBS) are chronic diseases that affect the Health-Related Quality of Life (HRQoL). HRQoL evaluate the impact of a disease on the individual and assess the response to treatment. The aim is to measure the HRQoL in adult patients with CD and its relationship with the adherence to gluten-free diet (GFD) and the coexistence with IBS.

***Materials and Methods:*** A cross-sectional study was performed in patients with CD from the University Hospital in Montevideo (Uruguay). CD diagnosis was based on the presence of at least one positive antibody (IgA tTG or IgA EMA) and histological findings (Marsh criteria Stage II, III, IV). HRQoL was assessed by the Spanish version of the Short Form 36 Health Survey validated In Uruguay. IBS was assessed by a Spanish version of the Rome II Modular Questionnaire (RIIMQ). Adherence to GFD was assessed on the basis of self-reported adherence to a GFD over a period of at least six months. Those under 18 years of age, who voluntarily decided not to participate or were pregnant were excluded. Socio-demographic data and medical history were collected in all patients.

***Results:*** 123 patients were included, 89% were female. The HRQoL showed values of 47.3 in the Physical Component Summary and 44.9 in the Mental Component Summary score. Physical Functioning presents the highest score, followed by Social Functioning. The lowest scores are observed in General Health and Vitality. The patients non-adherent to GFD have significantly worse HRQoL in the Mental Component Summary score, Emotional Role, Social Functioning, Mental Health, Vitality and Bodily Pain, than the ones who adhere. A significant difference was observed with worse scores, in patients that associate IBS.

***Conclusion:*** In this group of adult celiac patients, HRQOL is slightly lower to the general population. Adherence to GFD improves HRQoL especially in the mental dimensions. Those patients associating IBS show lower HRQoL, regardless of the adherence to GFD.

***Keywords:*** Celiac disease, QoL, irritable bowel syndrome

---

***PP-77***

## *Current status of usage of biologic agents to ulcerative colitis in our institution*

**Miyoko Sakurai, Koichiro Abe, Daisuke Manabe, Taku Honda, Daisuke Yanagisawa, Kyohei Maruyama, Naohiro Nakamura, Atsushi Miki, Hitoshi Aoyagi, Akari Isono, Shinya Kodashima, Ryu Shimada, Tamuro Hayama, Takeshi Tsuchiya, Keijiro Nozawa, Keiji Matsuda, Yojiro Hashiguchi, Takatsugu Yamamoto**

*Teikyo University School of Medicine, Tokio, Japan*

***Background/Aims:*** Ulcerative colitis (UC) is defined as a chronic immune-mediated inflammatory disease of the large intestine, and the incidence tends to increase worldwide. There are various therapeutic options available for UC patients. In particular, the development of biologic agents have changed the treatment strategies drastically in refractory and severe cases. Here we investigated the clinical background and therapeutic effect of UC. patients using biologics.

***Materials and Methods:*** The number of UC patients attending our hospital was 220 (Male:Female=121:99), and 16 cases were administered biologics (M:F=5:11). We compared of the onset age and the extent of inflammation between patients with biologics and those without. Precise descriptions of clinical course before and after initiation of biologics were available in 11 out of 16 patients, so we investigated the following factors of them; the reason of administration, duration of induction from onset, concomitant immunomodulators and change of activity. The disease activity was evaluated by partial Mayo score (PMS).

***Results:*** The mean ages were 33.1 years with biologics and 37.1 without biologics (p=0.27). The extent of disease was as follows; 13 pancolitis and 3 left sided colitis in patients administered biologics, on the other hand, 127 pancolitis, 29 left sided colitis, 45 proctitis and 3 right sided or segmental colitis in others. In 11 patients taking biologics, 8 were steroid-dependent, 2 were steroid-resistant and 1 was another reason. The mean duration of induction from onset was 80 months, but a month and four months each in steroid-resistant cases. Immunomodulators were used in 8 cases, in which 3 discontinued the ad-

ministration by adverse effects. Infliximab and adalimumab were choiced as primary agents in five and six cases each. There were one primary and two secondary failures and biologics were switched in all 3 cases. The mean PMS were 6.5 prior to administration, in contrast, significantly improved until 1.4 after induction of biologics (p=0.0001).

***Conclusion:*** Biologic agents showed remarkable effectiveness in spite of using intractable cases.

***Keywords:*** Inflammatory bowel disease, ulcerative colitis biologics

---

***PP-78***

## *Reduced food diversity in SIBO patients*

**Vladimir Pilipenko, Vasily Isakov**

*Department of Gastroenterology and Hepatology, Research Institute of Nutrition, Moscow, Russia*

***Background/Aims:*** Small intestinal bacterial overgrowth (SIBO) is a widespread disease characterized by a significant decrease in the quality of life. Antibiotic treatment with SIBO is not effective enough. Long-term dietary patterns can shift the composition of the microbiota. The aim: to compare nutritional diversity in patients with SIBO H2 and in patients without SIBO.

***Materials and Methods:*** Hydrogen-methane breath test with lactulose was performed in 630 patients, the results of which identified groups with (n=522) and without SIBO. Three-day food diaries were collected from all participants. According to food composition all dishes in food diary were converted into constituent products and were sorted in the lists of unique values by group of products. The study compared food diversity in this groups.

***Results:*** A comparison of nutritional diversity in patients with SIBO revealed a lower species diversity in the groups of dairy products (2.70±1.37 vs. 3.19±1.34, p<0.001), vegetables (5.50±2.22 vs. 6.29±1.90, p<0.001), fruits (1.54±1.38 vs. 1.99±1.69, p=0.018). Diversity of grains, meats, fishes, fat products, nuts and legumes and sweets did not have significant differences.

***Conclusion:*** Significant differences were found in the nutritional diversity of patients with SIBO in relation to the consumption of dairy products, vegetables and fruits. The obtained data may be used to develop dietetic maintenance of SIBO therapy and prevention of its relapses.

***Keywords:*** Breath test with lactulose, SIBO, hydrogen, food diversity

---

***PP-79***

## *Final results of a prospective study comparing confocal laser endomicroscopy with standard biopsies in the assessment of persistent or recurrent intestinal metaplasia/ neoplasia after endoscopic treatment of barretts esophagus related neoplasia*

**Jana Krajciova, Marek Kollar, Jana Maluskova, Zuzana Vackova, Julius Spicak, Jan Martinek**

*Institute for Clinical and Experimental Medicine*

***Background/Aims:*** Patients after endoscopic treatment of Barretts esophagus (BE) related neoplasia (BORN) should undergo regular endoscopic surveillance with biopsies to detect persistent or recurrent intestinal metaplasia (IM) or neoplasia (N). Probe-based confocal laser endomicroscopy (pCLE) offers detailed examination of cellular structures and may examine larger areas compared to standard biopsy. The aim of this study was to evaluate the efficacy of pCLE (vs. standard biopsies) in detection of persistent/recurrent IM/neoplasia in patients after endoscopic treatment of BORN.

***Materials and Methods:*** A single center, prospective, controlled and pathologist-blinded study in patients undergoing surveillance endoscopy after endoscopic treatment of BORN. pCLE images were obtained from the neo-Z-line, the cardia and the esophagus. Thereafter, standard biopsies were taken and sent for histopathological analysis.

***Results:*** We examined 52 patients, from these 22 patients (42%) had the initial diagnosis of low-grade intraepithelial neoplasia (LGIN), 10 patients (19%) had high-grade intraepithelial neoplasia (HGIN) and 20 patients (39%) had an early adenocarcinoma (EAC). Eight patients (15%) underwent endoscopic resection (ER) only, 25 patients (48%) underwent ER or ESD of all visible lesions followed by radiofrequency ablation (RFA), and 19 patients (37%) had RFA as a single treatment modality. Persistent/recurrent IM was detected only at the level of neo-Z-line in 12 patients (23%, 12/52 pts) by both standard biopsies and pCLE. pCLE but not biopsies detected persistent/recurrent IM in 4 patients (8%, 4/52), another 2 patients had IM present in biopsies but not in pCLE (4%, 2/52). pCLE diagnosed one patient with recurrent LGIN in a macroscopic visible tongue arising from neo-Z-line, no other recurrences of BORN occurred. Sensitivity and specificity of pCLE in detection of persistent/recurrent IM was 87.5% (95% CI 61.7-98.5) and 90.5% (95% CI 77.4-97.3), respectively, with a positive predictive value of 77.8% (95% CI 57.5-90.1) and a negative predictive value of 95.0% (95% CI 83.8-98.6). Agreement of pCLE and histopathological findings was 90%.

***Conclusion:*** pCLE is comparable to standard biopsies in detection of persistent/recurrent IM after endoscopic treatment of BORN.

***Keywords:*** Barretts esophagus, intestinal metaplasia, probe-based confocal laser endomicroscopy

---

***PP-80***

## *Epidemiologic profile of gastric cancer in East Azerbaijan, Iran: 2 years population based cancer registry results*

**Pooneh Jabbaripour, Zohreh Sanaat, Mohammad Hossein Somi, Roya Dolatkhah**

*Liver and Gastrointestinal Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran*

***Background/Aim:*** The incidence of gastric cancer is particularly high in Iran, where it remains a leading cause of cancer-related death, and it is the most common cancer among Iranian men, with an ASR of 21.6 per 100,000 men (GLOBO2018). By contrast the incidence and mortalityof gastric cancer rank fifth and third respectively worldwide. The aim of this study was to evaluate the epidemiologic profile of gastric cancer in East Azerbaijan, Iran.

***Materials and Methods:*** In total, 2 years of cancer registry data were collected from different sources in East Azerbaijan (EA-PBCR), and a data quality check was performed to ensure clean data. Using the 2000 World Health Organization standard population, we then generated age-standardized incidence rates (ASRs) for different cancers, with data were generated for each year from 1394 to 1395 of the Persian calendar (i.e., 19 March 2015 to 20 March 2016).

***Results:*** In total we registered 1700 gastric cancer in two years;918 cases in 2015 and 712 cases in 2016. From these, 1181 cases were male and 519 cases were female, and the male to female ratio was 2.28. The mean age of the patients was 68.45 (±12.97) years, with age range of 21-99 years old. The most common age group was 7$^{th}$decade with 531 (31.2%) gastric cancer cases. The most common morphological types were adenocarcinoma (n=667, 39.2%), and intestinal type carcinoma (n=421, 24.8%), and signet ring cell carcinoma (n=119, 7%). The age standardized incidence rate (ASR) was 29.65 and 13.30 in males and females per 100,000, in 2015. The ASR was 26.48 and 9.91 in males and females per 100,000, in 2016. Gastric Cancer account for 12.4% of all cancers in both sexes, and the odds for men was 1.50, compared with women (OR 1.50; 95% CI=1.33 – 1.71). After rigorous attempts, 63.5% of the cases had microscopic verification (MV), and we collected 3.3% of reports based on clinical data. The remaining data were collected from the cause of death registry or autopsy records, producing a final DCO% of 27.4%.

***Conclusion:*** The ASR was decreased from 29.7 to 26.48 in men, and decreased from 13.3 to 9.91 in female. However gastric cancer is the most common cancer in terms of incidence and mortality in East Azerbaijan, according to last results of EA-PBCR.

***Keywords:*** Gastric cancer, registry, epidemiology

***PP-81***

## *Transient elastography in assessment and follow up of patients with HBEAG-negative chronic HBV infection*

**Masoudreza Sohrabi, Hossein Ajdarkosh, Parvin Azar, Zhale Bayani**

*Gastrointestinal and Liver Diseases Research Center, Iran University of Medical Sciences, Iran*

***Background/Aims:*** Liver fibrosis is the main prognostic factor for chronic Hepatitis B. Convey of inactive hepatitis B to active one is usually done silently. In this setting accurate estimation of fibrosis is an important step in management of these patients. The aim of present study is to determine the impact of Fibroscan to evaluation of liver fibrosis in inactive chronic hepatitis B.

***Materials and Methods:*** In a prospective study between Fev2016-sep 2018, we evaluated the liver fibrosis among patients with inactive CHB by Fibroscan assessment. The inclusion criteria include presence of serum HBsAg more than 6 months, persistence normal liver enzymes during last six months, HBV – DNA viral load <20000 IU/ml. All other liver diseases were excluded. All patients underwent liver fibroscan. The factors influence on Fibroscan results such as sever obesity, cardiac and renal failure, decompensate cirrhosis and ascitis were excluded. The patients visited every six months. The eligible patients followed for one year.

***Results:*** 210 patients have been enrolled in this study. The mean age was 37.49±12.8 years old and of them132 patients were male. Regarding the HBV DNA load,48 (22.9%),84 (40%) and 78(37.1%) patient have viral load undetectable, under and more than 2000IU/ml respectively. The mean TE value among these patients was 5.8±1.26 kp. TE value more than 7.2kp was seen in 25 (11.9%) patients with mean of 8.1±1.4 kp. There was no significant association between TE results and viral load levels in general. Moreover, we did not observed a significant association between age and viral load and TE.

***Conclusion:*** We illustrated that inactive hepatitis B is not a innocent and benign condition and need regular follow up by liver enzyme, Viral load and TE evaluations.

***Keywords:*** HBV, fibrosis, fibroscan

---

***PP-82***

## *The effects of sedation with propofol or propofol+ketamine on cerebral oxygenation in pediatric patients undergoing colonoscopy*

**Sezgin Bilgin, Fatma Demirbaş**

*Ondokuz Mayıs University School of Medicine, Samsun, Turkey*

***Background/Aims:*** Propofol and propofol+ketamine are both commonly preferred for procedural sedation. Cerebral oximetry is based on the principles of near-infrared spectroscopy, a method of monitoring the alterations in cerebral oxygen saturation ($RSO_2$) continuously. The $RSO_2$ values reflect cerebral oxygenation during hypoxemia, hypocapnia, and arterial hypotension. To the best of our knowledge, there has been no study comparing the effects of propofol with propofol**+**ketamine on cerebral oximetry. The present study aimed to compare the effects of sedation with propofol or propofol+ketamine on cerebral oximetry in pediatric patients scheduled for colonoscopy.

***Materials and Methods:*** A prospective evaluation was performed on the data of 50 patients who underwent colonoscopy between June and December 2018. Cerebral oximetry sensors were placed in the right and left of the frontal region. The patients were randomly divided into two groups. Patients in Group P received 1mg/kg propofol IV and patients in Group K were treated with 1 mg/kg propofol IV + 0.5mg/kg ketamine IV for induction of sedation. Ramsey

sedation score was kept between 4 to 5 by repeating 0.25 mg/kg propofol IV boluses. After induction of sedation all the patients received 0.04 µg/kg/min remifentanil infusion. Heart rate (HR), non-invasive blood pressure (BP), end tidal carbon dioxide (EtCO2) and ($RSO_2$) values before and 1, 5, 10, 15, 20 and minutes after sedation were recorded.

***Results:*** There were no statistically significant differences between the groups in terms of demographic data, HR, BP, and EtCO2 ($p>0.05$). There was a statistically significant increase [$F (5, 275)=12.89$ ($p<0.001$)] between $RSO_2$ values before and after sedation measurement times within the groups. There was no statistically significant difference between the groups ($p=0.281$). We did not detect cerebral desaturation in any of the patients during the procedures.

***Conclusion:*** Assessment of cerebral oxygenation saturation, which is simply applicable and a noninvasive method, can provide the anesthesia plans to be optimized according to the needs of the brain. Brain may be exposed to hypoxia due to supply-demand imbalance of oxygen not only in general anesthesia procedures but also in sedation practices. Sedation with propofol or coadministration of propofol and ketamine during pediatric colonoscopies did not cause any decrease in $RSO_2$ values. Both of these options appear to be safe in terms of $RSO_2$ when used for sedation in pediatric patients undergoing colonoscopy.

***Key words:*** Cerebral oximeter, ketamine, pediatric colonoscopy**,** propofol

---

***PP-83***

## *Increased proton-sensing receptor GPR4 promotes colorectal cancer progression by activated non canonical hippo pathway*

**Minhao Yu, Ming Zhong**

*Gi Department, Renji Hospital, School of Medicine, Shanghai Jiaotong University, China*

***Background/Aims:*** Colorectal cancer (CRC) is the third most commonly diagnosed cancer and second leading cause of cancer mortality worldwide. However, despite current progress, many patients with advanced and metastatic tumors still die from the malignancy. Acidification microenvironment is one characteristics of tumor microenvironment. How cancer cells response to this acidic surrounding still largely remain unknown, especially in colorectal cancer.

***Materials and Methods:*** Bioinformatics analysis, PCR, western blotting and immunohistochemistry (IHC) were performed to detect the expression of GPR4 in CRC. The function of CRC was demonstrated by a series of *in vitro* and *in vivo* experiments. Pharmacological treatment, immunofluorescence and western blotting were carried out to demonstrate the potential mechanisms of GPR4.

***Results:*** We proved that GPR4 was overexpressed in CRC tissues, and related to tumor stage, and patient survival. Then, functional assays showed that GPR4 promoted CRC carcinogenesis and metastatic potential. Finally, the RhoA-LATS-YAP1 signaling pathway was involved in the mechanistic investigation. The results demonstrated that GPR4 enhanced the progression of CRC and taken use of extracellular acidification in tumor microenvironment through activating the non-canonical Hippo pathway.

***Conclusion:*** GPR4 is upregulated in colorectal cancer and associated with poor prognosis of colorectal cancer sufferers. These findings provide novel insight of GPR4 roles into colorectal cancer and could suggest new therapeutic targets in CRC.

***Keywords:*** Extracellular acidification, GPR4, hippo pathway

***PP-84***

## *Endoscopic management of minor ampullary tumors: A multicenter case series*

**Rida Aslam[1], Mahnoor Inamullah[2], Nayab Ahsan[2], Kamran Ayub[2]**

*[1]Franciscan St James, USA*
*[2]Silver Cross Hospital, USA*

***Background/Aims:*** Ampullary and duodenal carcinoma are aggressive cancers with poor 5 year survival rates. Like colorectal cancer, ampullary and duodenal carcinomas are also thought to follow the adenoma-carcinoma sequence. Ampullectomy is a well-established treatment for adenoma and early stage carcinoma of major ampulla. Several studies have established its safety and efficacy in the management of major ampullary adenomas. However, adenomas arising in the minor ampulla are relatively rare and there are no good case series on endoscopic management of these tumors. We report a multicenter case series of endoscopic ampullectomy in the management of minor ampullary tumors. To establish the safety and efficacy of endoscopic ampullectomy in the management of minor ampullary adenomas.

***Materials and Methods:*** Consecutive patients undergoing ampullectomy for minor ampullary tumor at four hospitals were included in this study over a period of 5 years. A total of 6 patients were included in the study and all six patients underwent ERCP for purpose of minor ampullectomy. MRCP and EUS was performed on all patients prior to ERCP to rule out invasion. Pancreatic stents were placed after ampullectomy in 5 patients, 3 F x 8 cm single pigtail stents in 4 patients, and 5 F x 5 cm straight stent in one patient. All stents were removed in approximately 2 weeks.

***Results:*** Ampullectomy was technically successful in all 6 patients. One patient required two ERCPs for complete ampullectomy. The adenomas varied in size from 1 cm to 3 cm. Pathology revealed adenoma in three patients, adenoma with high grade dysplasia in one patient, carcinoma in one patient, and carcinoid tumor in one patient. One patient (16%) developed post ERCP pancreatitis; this patient was kept in the hospital for 2 days. No other major complications were noted. Two patients had abdominal pain for one day post ERCP; this was considered a minor complication. Follow-up for these patients ranged from 2 to 5 years with EGD using duodenoscope at 3 months, one year and yearly thereafter. One patient had recurrence at 2 years which was thought to be recurrent adenoma (4 mm). This patient was treated with repeat ampullectomy. The patient with carcinoma had endoscopies every 3 months for a year followed by yearly endoscopy; no recurrence was noted during the 3 years of follow-up.

***Conclusion:*** In our pilot study, endoscopic ampullectomy appears safe and effective in the management of minor ampullary adenomas.

***Keywords:*** Minor ampullary adenoma, ampullary carcinoma, ampullectomy

---

***PP-85***

## *Technique for prevention of pseudoaneurysm formation associated with pancreatic fistula using bioabsorbable material*

**Katsuya Okada, Masayasu Aikawa, Yukihiro Watanabe, Kojun Okamoto, Shinichi Sakuramoto, Shigeki Yamaguchi, Isamu Koyama**

*Saitama Medical University International Medical Center, Saitama, Japan*

***Background/Aims:*** The pseudoaneurysm(PA) formation with the pancreatic fistula after the pancreatectomy is the most serious complications that can become fatal. For PA formation prevention, it is important how to protect the stump such as the GDA. The current technique of the artery stump protection is coating by the round ligament or omentum, but in some cases these may not be available enough. We have clinically investigated the usefulness of prevention the formation of PA by coating the arterial stump with bioabsorbable material Neoveil® (GUNZE Corporation,Tokyo,Japan), and no pseudoaneurysm

formation was found in the cases using this technique. This time, to evaluate the usefulness of Neoveil®,the experiment was performed using large animals and evaluated histologically.

***Materials and Methods:*** Hybrid pig was used for this experiment. A pancreas of a pig is incised to make a model of pancreatic fistula. Splenic artery close to the pancreatic incision is ligated and cut off, one stump is used as control group without coating, and the other stump is covered with Neoveil®. The composition of Neoveil® is 100% polyglycolic acid, and is completely absorbed by hydrolysis in 15 weeks. Neoveil® used the traditional product (Neoveil group), and new product Neoveil Nano® (Nano group) which attempted to absorb materials earlier by thinning the fiber. Because the PA formation by the pancreatic fistula often occurred in approximately two weeks after surgery, it resected the part two weeks later and evaluated it macroscopically and histologically.

***Results:*** Two weeks later, the aneurysm formation was not found in all groups macroscopically including control group. In addition, no abscess formation or collapse of the arterial stump was observed in all groups. In the histologically, the Neoveil group showed marked inflammatory cell infiltration and partial collagen fiver formation. But Neoveil® remained extensive, and a small gap was found between regenerative tissue and the arterial adventitia. On the contrary, in the Nano group, the granulation tissue regenerated without creating a gap with the arterial wall, and covered the arterial stump well.

***Conclusion:*** It is suggested that the coating of the arterial stump by Neoveil® may be protected from the exposure of the pancreatic juice by the formation of the layer of granulation tissue accompanying the infiltration of inflammatory cells. Neoveil®,especially Neoveil® Nano is expected to be used for prevention of PA formation associated with pancreatic fistula.

***Keywords:*** Pancreatic fistula, pseudoaneurysm, bioabsorbable material

---

***PP-86***

## *Engulfment and cell motility1 regulates tumor cell survival and predicts prognosis in colorectal cancer*

**Young-eun Joo, Ik-joo Chung, Kyung-keun Kim**

*Department of Internal Medicine, Chonnam National University Medical School, Gwangju, Republic of Korea*

***Background/Aims:*** The engulfment and cell motility (ELMO) family play a crucial role in the process of chemotaxis, migration and metastasis of tumor cells. ELMO 1 has been implicated in the pathogenesis of variable cancers. However, However, the distinct function of ELMO1 in colorectal cancer (CRC) is unclear. We determined whether ELMO1 affected the oncogenic behavior of CRC cells and investigated its prognostic value in patients with CRC.

***Materials and Methods:*** We investigated the impact of ELMO1 on tumor cell behavior by using the small interfering RNA and pcDNA-myc vector in HT-29 and SW480 CRC cell lines. The expression of ELMO1 was investigated by RT-PCR, enzyme-linked immunosorbent assay and immunohistochemistry in CRC serum and tissues.

***Results:*** ELMO1 knockdown led to inhibit invasion and migration in CRC cells. In contrast, ELMO1 overexpression induced invasion and migration. ELMO1 knockdown induced apoptosis, whereas ELMO1 overexpression inhibited apoptosis via the modulation of capase-3,-7 and PARP. Phosphorylated Akt and p38 levels were decreased following ELMO1 knockdown, and they were reversed after ELMO1 overexpression. ELMO1 mRNA and protein expressions were significantly increased in CRC tissues compared to normal colorectal mucosa tissues. The mean apoptotic index value of ELMO1 positive tumors was significantly lower than that of ELMO1 negative tumors. However, no significant correlation was observed between FOXA1 expression and the mean Ki-67 labeling index value. ELMO1 expression was associated with perineural invasion, stage, lymph node metastasis, distant metastasis, and poor survival.

***Conclusion:*** Our results indicate that ELMO1 is associated with tumor progression via modulation of tumor cell survival in CRC cells. Moreover, ELMO1 was upregulated in CRC tissues and was associated with poor prognosis, suggesting an oncogenic role of ELMO1 in CRC development and progression.

***Keywords:*** Colon cancer, survival, ELMO1, prognosis

***PP-87***

## *Inter-and intra-assay variation in the diagnostic performance of anti-tissue transglutaminase antibody assays in two racially and geographically distinct populations*

**Prashant Singh[1], Alka Singh[2], Jocelyn Silvester[3], Vikas Sachdev[2], Xinhua Chen[1], Hua Xu[1], Daniel A. Leffler[1], Vineet Ahuja[2], Donald R. Duerksen[4], Ciaran P. Kelly[1], Govind K. Makharia[2]**

*[1]Beth Israel Deaconess Medical Center, Boston, USA*
*[2]All India Institute of Medical Sciences, New Delhi, India*
*[3]Boston Children's Hospital, Boston, USA*
*[4]University of Manitoba, Winnipeg, Canada*

***Background/Aims:*** Anti-tissue transglutaminase antibody (Anti-TG2-ab) based immunoassaysare the cornerstone of serological testing in celiac disease (CeD). However, test characteristics may vary among assays and it is unclear if performance changes across populations. We compared diagnostic performance of four anti-TG2-ab assays in Canadian and Indian populations.

***Materials and Methods:*** CeD (150 Indian; 140 Canadian) was diagnosed based upon elevated anti-TG2-ab, histology (modified Marsh ≥2) and an unequivocal clinical response to gluten-free diet. Controls (N=86 at each site) had normal duodenal histology. Sensitivity and specificity were calculated using manufacturer cut-offs. Optimal cut-offs for assays were also calculated using Youden's index.

***Results:*** Anti-TG2-ab assay sensitivity ranged from 76%-93.3% in Indian patients and 76.4%-97.9% in Canadian patients. Specificity ranged from 89.5%-98.8% in Indian and 95.4%-100% in Canadian patients. The assay with the highest sensitivity in the Canadian population (97.9%) had the lowest sensitivity in the Indian population (76%) and vice-versa. Sensitivity of anti-TG2-ab assays could be improved without compromising specificity if separate cut-offs were used for geographically and/or racially distinct population. Among 169 celiac patients with anti-TG2-ab ≥10-fold ULN on at least one assay, 0%-4.1% were seronegative on at least one other assay.

***Conclusion:*** The diagnostic performance of anti-TG2-ab assays varies significantly within and between two geographically and/or racially distinct populations. In patients with high pretest probability of CeD, a single anti-TG2-ab assay may not adequately rule out CeD. Diagnostic performance of anti-TG2-ab assays cannot be assumed without assessment of their performance in specific populations.

***Keywords:*** Celiac disease, serology, anti-tissue transglutaminase antibody

---

***PP-88***

## *Fulminant ulcerative colitis initially presenting as bullous pyoderma gangrenosum: A case report and review of literature*

**Joseff Karl Fernandez, Ira Yu**

*National Kidney And Transplant Institute, Philippines*

Ulcerative colitis (UC) is a disease which is characterized by recurring episodes of inflammation of the mucosal layer of the colon clinically presenting as chronic diarrhea and hematochezia. It is associated with various extra-colonic manifestations including Pyoderma Gangrenosum (PG), a very rare dermatologic condition with a reported incidence of 3 to 10 cases per million per year. It is characterized as by inflammation and ulcerative destruction of the skin and has been reported to occur in 0.5-2% of patients with UC. The etiologies of both disease entities have not been entirely elucidated, however, recent studies show that an

immune-mediated process might be a likely explanation. Among the reported rare cases of PG in UC, skin eruptions occurred in patients already known to have UC. Here we present a case of a previously well 48-year old femaleinitially presenting with bullous pyoderma gangrenosum of the right thigh, which was eventually associated with recurrent episodes of hematochezia prompting colonoscopy. Biopsy results of the skin and colonic ulcers were consistent with PG and UC respectively. The massive gastrointestinal bleeding was refractory to initial treatment with Mesalazine and Methylprednisolone, but was successfully treated with the biologic agent Infliximab. Wound healing of the right thigh also improved with Infliximab and the patient was eventually able to undergo successful skin grafting of the defect caused by the PG. The significant response of Ulcerative colitis and Pyoderma gangrenosum to the anti-TNF-a Infliximab in this case is consistent with recent literature suggesting that these two conditions are likely due to dysregulated immune pathways. Moreover, this case tells us that a high clinical suspicion for PG should alert clinicians that other autoimmune or inflammatory conditions including UC may also be present in these cases.

***Keywords:*** Ulcerative colitis, inflammatory bowel disease, pyoderma gangrenosum, infliximab

---

***PP-89***

## *Epithelial–mesenchymal transition in gastric cancer cells regulated by helicobacter CAGA*

**Yong Chan Lee, So Dam Lee, Boram Whang**

*Yonsei University College of Medicine, Seoul, South Korea*

***Background/Aims:*** The pathogenic molecular mechanism of the carcinogenesis in gastric cancer by *Helicboacter pylori* (*H. pylori)* remains unknown. Casein kinase 2 (CK2) regulates many substrates and is involved in cell growth, proliferation, survival, angiogenesis, and invasion. Epithelial-to-mesenchymal transition (EMT) is involved in many signaling pathways, but the key regulatory kinases in this process have not been clearly identified.

***Materials and Methods:*** In this study, we analyzed the molecular mechanism related to gastric carcinogenesis by investigating the role of CK2 in EMT.

***Results:*** Herein, the expression of CK2α was not altered, whereas CK2β decreased in CagA-dependent pathway. Moreover, expression of ectopic CK2β was downregulated by CagA. This suggests that CagA negatively regulates the stabilization of CK2β protein. Also, the level of ubiquitinated CK2β were higher in HP60190 infected cells than in control cells. Thus, CK2β is degraded by the proteasomal pathway following CagA translocation of *H. pylori*. In addition, CagA binds both CK2α and CK2β, which resulted in the suppression of CK2β binding by infected HP60190, but does not suppress CK2α binding. Furthermore, downregulation of CK2β increased Snail as CK2 target genes, EMT-related marker in *H. pylori*-infected gastric cancer cells.

***Conclusion:*** Overall, CK2 tetramer subunits may control the function of CagA and EMT related genes, thereby regulating CagA-dependent gastric carcinogenesis. Taken together, the present study suggests that the CK2 regulatory subunit has diverse effect on CagA-dependent cellular processes.

***Keywords:*** Casein kinase, *Helicobacter pylori*, epithelial mesenchymal transition

---

***PP-90***

## *Predictors for clinical outcomes of self-expandable metal stent treatment for malignant colorectal obstruction*

**Ik-joo Chung[1], Kyung-keun Kim[2], Young-eun Joo[1]**

*[1]Department of Internal Medicine, Chonnam National University Medical School, Gwangju, Korea*
*[2]Department of Pharmacology, Chonnam National University Medical School, Gwangju, Korea*

***Background/Aims:*** Self-expandable metal stents (SEMSs) are used with increasing frequency to treat malignant colorectal obstruction. However, data on predictors for clinical outcomes of SEMS treatment for malignant colorectal obstruction are lacking. The aim of this study was to identify factors that be predictive of outcome of SEMS treatment in malignant colorectal obstruction.

***Materials and Methods:*** Clinical data from patients who underwent SEMS treatment for malignant colorectal obstruction at Chonnam National University Hwasun Hospital between 2016 and 2018 were retrospectively reviewed. A total of 479 patients were identified and their data were analyzed. Main outcome measures included technical success, clinical success, complications, and predictors of outcome.

***Results:*** The most common cause of malignant colorectal obstruction was colorectal cancer (452/479, 94.3%). The left-sided malignant colorectal obstruction was 85.8% (411/479) The bridge to surgery group was 248 of 189 patients (51.8%) and palliative group was 231 patients (48.2%). Technical success was achieved in 86.4% (414/479), and clinical success in 74.3% (356/479) of the cases. The incidence rate of complications was higher in palliative group than that of bridge to surgery group (14.9% vs 27.7%, p<0.001). Multivariate analysis revealed that metastasis, microperforation, pain, and tenderness were associated with the significant risk factors of technical failure of SEMS treatment (p=0.040, 0.008, 0.029, and 0.012, respectively). Multivariate analysis revealed that tenderness was associated with a significant risk factor of clinical failure of SEMS treatment (p=0.003).

***Conclusion:*** Tenderness was a significant independent predictor of technical and clinical failure of SEMS treatment in malignant colorectal obstruction.

***Keywords:*** Colon, malignancy, obstruction, stent, outcome

---

***PP-91***

## *Overloaded endoscopic screenings lead to reduced gastric cancer detection in the Korean National Cancer Screening Program*

**Kee Myung Lee[1], Jae Keun Kim[2], Eunyoung Lee[3], Choong-kyun Noh[1], Gil Ho Lee[1], Bumhee Park[3], Jae Bum Park[4], Sung Jae Shin[1], Jae Youn Cheong[1], Jin Hong Kim[1], Sun Gyo Lim[1]**

*[1]Department of Gastroenterology, Ajou University School of Medicine, Suwon, Korea*
*[2]Department of Radiology, Ajou University School of Medicine, Suwon, Korea*
*[3]Departement of Biomedical Informatics, Ajou University School of Medicine, Suwon, Korea*
*[4]Department of Occupational Medicine, Ajou University School of Medicine, Suwon, Korea*

***Background/Aims:*** Despite the fact that performing excessive of endoscopy examinations may have a negative impact on the quality of the examination, there were few studies on this topic, especially regarding upper endoscopy. Therefore, we assessed the association between the increased number of examinations and cancer detection rates and sensitivity, using the Korean National Cancer Screening Program (KNCSP) database.

***Materials and Methods:*** We performed a retrospective population-based study using the KNCSP database for gastric cancer between 2013 and 2014. We included 12,504,249 Koreans 40 years of age. We assessed both detection rates and sensitivity of endoscopic screening for gastric cancer, and performed further analysis by adjusting for the number of participants.

***Results:*** There were 9,896,813 subjects who underwent upper endoscopy according to KNCSP. The monthly number of subjects who underwent examinations was greatest in December (n=1,989,911; 20.11%). Cancer detection rates were lowest in December (0.21%) and the adjusted sensitivity for cancer detection showed a tendency to decrease towards December. The detection rates decreased as the number of monthly screenings increased in the linear regression and correlation analysis (p=0.0031, Pearson correlation coefficient=-0.7747). In the multivariable logistic regression analysis, history of endoscopic examination, age group, and metropolitan area were significantly associated with gastric cancer detection.

***Conclusion:*** In the KNCSP, the workload of endoscopists increased excessively with increasing number of examinations towards the end of the year, reflected by decreased cancer detection rates and adjusted sensitivity during this period. In order to increase cancer detection rate, proper management of the number of endoscopy is required to avoid overloading.

***Keywords:*** Stomach cancer, screening endoscopy, cancer detection rate

---

***PP-92***

## *Benefit of systematic screening for viral hepatitis before treatment with antibacillaries*

**El Moufid Houda[1], El Mohammadi Mohammed[2]**

*[1]Hopital Cheikh Zayd, Uiass, Morocco*
*[2]Service Hépato-gastro-entérologie, Hopital Cheikh Zayd, Rabat, Uiass, Morocco*

Hepatotoxicity is a major and serious risk of antibacillary treatment, the Moroccan recommendations associate Rifampicin, isoniazid and pyrazinamide; ERIPK4; which can greatly limit the use of this treatment. The hepatic toxicity of antituberculosis drugs is a serious side effect that can range from a simple transient disturbance of the hepatic evaluation to fulminant hepatitis imposing the immediate arrest of the antibacillaries. We report the case of a 65-year-old patient admitted for acute decompensation of chronic hepatopathy unrecognized post-infection with HBV and HCV and severe hepatitis according to WHO classification secondary to TB treatment. The purpose of this case study with a literature review was to emphasize the value of a systematic search for factors that predispose to hepatic toxicity of anti-tuberculosis drugs. The existence of chronic liver disease increases the risk of drug toxicity, patients with hepatitis B or C constitute a land susceptible to its occurrence

***Keywords:*** Antibacillary treatment, hepatotoxicity, hepatitis

---

***PP-93***

## *Expression of the transforming factor β1 and CD68+ in the intestinal mucosa and liver in primary sclerosing cholangitis and its association with inflammatory bowel diseases*

**Karina Raikhelson[1], Nataliya Marchenko[1], Vadim Karev[2], Elina Kondrashina[1], Ekaterina Pazenko[1]**

*[1]Scientific-Clinical and Educational Center of Gastroenterology and Hepatology, Saint-Petersburg State University, Russia*
*[2]Scientific and Research Institute of Childhood Infections of Federal Medical and Biological Agency of Russian Federation, Russia*

***Background/Aims:*** To investigate the macrophages (CD68 +) content and expression of the transforming factor β1 (TGF-β1) in the intestinal mucous (IM) and liver in primary sclerosing cholangitis (PSC): an isolated course and its association with inflammatory bowel disease (IBD).

***Materials and Methods:*** We processed biopsies of the deep mucosa IM from ileum and large intestine (4 samples of each localization) for immunohistochemical cell characterization from 18 patients with PSC, 11 of whom had active form IBD. The control group was consisted of 24 patients with isolated IBD [14 – ulcerative colitis (UC) and 10 – Crohns disease (CD)]. The number of CD68+ and TGF-β1 from 17 patients with PSC (8 – PSC, 9 – IBD/PSC) were counted in 5 HPF (x400) for each marker in 1 $mm^2$ and separately in 3 zones of the liver acinus (portal-1, periportal-2 and centrolobular-3).

***Results:*** The density of CD68 + macrophages (863.7±557.5; 1531.4±493.3 abs./$mm^2$, $p<0.05$, PSC and IBD/PSC, respectively) and TGF-β1 (PSC: 1024.3±1187.8; IBD/PSC: 2806.9±1556.7 abs./$mm^2$, $p<0.05$) in the IM were high in all patients with PSC, regardless of the presence of active inflammation. The expression of CD68 + and TGF-β1 were higher ($p<0.05$) in IM

with active form of IBD than with PSC without endoscopic and morphological signs of colitis. The density of CD68 + cells was higher ($p<0.05$) with isolated UC current (1908.5±328.9 abs./mm$^2$) than with IBD/PSC (1531.4±493.3 abs./mm$^2$). We found a high density of CD68 + cells (1-513.6±212.8; 2-2905.3±1386.9; 3-670.5±237.3 abs./mm$^2$) and TGF-β1 (1-331.4±281.2; 2-283.2±204.9; 3-350.3±288.2 abs./mm$^2$) in non-parenchymal liver cells of patients with PSC. The predominance of CD68 + expression was fixed in the periportal zone ($p<0.05$).

***Conclusion:*** PSC is characterized by increased expression of TGF-β1 in the periportal zone of the liver acinus. The density of CD68 + cells was significantly higher in patients with isolated UC.

***Keywords:*** Primary sclerosing cholangitis; inflammatory bowel disease

***PP-94***

## *Does irritable bowel syndrome affect the vagus nerve? An ultrasound study*

**Ömer Özçağlayan[1], Tuğba İlkem Kurtoğlu Özçağlayan[1], Mücahit Doğru[1], Rafet Mete[2]**

*[1]Department of Radiology, Namık Kemal University School of Medicine, Tekirdağ, Turkey*
*[2]Department of Gastroenterology, Namık Kemal University School of Medicine, Tekirdağ, Turkey*

***Background/Aims:*** Irritable bowel syndrome (IBS) is a functional gastrointestinal disorder that may influence the vagus. In this study our aim to show the possible morphologic differatiations of vagus between IBS patients and normal population.

***Materials and Methods:*** A total 89 patients were enrolled to study. Patients were divided IBS patients and control groups. IBS was confirmed with colonoscopy by an experienced gastroenterologist.Number of patients were 54 for IBS and 35 for control group. Vagus ultasound was evaluated by an experienced radiologist. Right (RV) and left vagus (LV) areas, RV and LV diameters were calculated in the IBS group and control group, respectively.

***Results:*** In IBS group, RV mean area was 2.24±0.77 mm$^2$, LV mean area was 2.05±0.68 mm$^2$. In control group, RV mean area was 2.14±0.64 mm$^2$, LV mean area was 2.05±0.76 mm$^2$. There was no statistical difference between IBS group vagus areas and control group vagus areas ($p=0.502$ for RV and $p=0.962$ for LV). In IBS group RV mean diameter was 1.70±0.35 mm, LV mean diameter was 1.53±0.27 mm. In control group RV mean diameter was 1.66±0.35 mm, LV mean diameter was 1.51±0.30 mm. There was also no statistical difference between RV and LV diameters ($p=0.411$ for RV and p=0,431 for LV).

***Conclusion:*** Vagus does not show morphological changes in IBS patients. This shows that in IBS pathogenesis, possible vagal disfunction is due to pathologic nerve stimulus rather than morphologic involvement of thenerve.

***Keywords:*** Irritable bowel syndrome, ultrasonography, vagus nerve

***PP-95***

## *Could serum PIVKA-II predict radiological response and survival outcome in patients with hepatocellular carcinoma undergoing transarterial chemoembolization?*

**Soohyun Yang, Wonhyeong Park**

*VHS Medical Center, Seoul, Korea*

***Background/Aims:*** Recent several studies have found that serial alpha-fetoprotein (AFP) measurement could be a useful tool in monitoring and assessing treatment response in patients with hepatocellular carcinoma (HCC). We validated the

predictive ability of change in protein induced by vitamin K absence-II (PIVKA-II) as an indicator of tumor response after transarterial chemoembolization (TACE) in comparison of the AFP model.

***Materials and Methods:*** We included 154 consecutive HCC patients with high baseline levels of PIVKA-II (≥60 mAU/mL) and/or AFP (≥200 ng/mL) who initially underwent repeated TACE between 2012 and 2018 at our hospital. All patients had at least one measurable HCC lesion of nodular type larger than 1cm in diameter. Radiological response (complete response or partial response) was assessed by dynamic computed tomography and/or magnetic resonance imaging using the modified Response Evaluation Criteria in Solid Tumors (mRECIST) criteria. Serological response was defined as a decrease of >50% compared to baseline level during a series of repeated TACE sessions.

***Results:*** Of 154 patients, 131 (85%) were male, and median patient age was 68 years (range, 42-85). The majority of patients were HBsAg-positive (80%), Child-Pugh class A (78%), and Barcelona Clinic Liver Cancer (BCLC) A or B (85%). There were 39 patients (25%) with high baseline levels of both PIVKA-II and AFP, and 63 (41%) and 50 (32%) with high PIVKA-II and AFP levels alone, respectively. Among 102 and 89 patients with high PIVKA-II and AFP levels, respectively, 84 (83%) and 66 (74%) showed PIVKA-II and AFP responses. Serological responses had good inter-responder agreement with radiological responses (κ values, 0.811 for PIVKA-II and 0.731 for AFP). Both PIVKA-II and AFP responders had better overall survival than nonresponders (hazard ratios, 3.4 and 4.7, respectively; $p<0.001$), as did mRECIST responders (hazard ratio, 7.2; $p<0.001$). The Cox's model revealed that PIVKA-II response was a significant predictor of overall survival of patients with high PIVKA-II level at baseline, independently of initial tumor and host factors (hazard ratio, 3.2; $p<0.001$).

***Conclusion:*** PIVKA-II response could be a surrogate endpoint of immediate and prolonged clinical outcomes following TACE along with AFP response, especially in HCC patients with elevated PIVKA-II.

***Keywords:*** PIVKA-II, alpha-fetoprotein, mRECIST criteria, tumor response, transarterial chemoembolization

---

***PP-96***

## *The leaf aqueous extract from kalanchoe crenata alleviates dextran sodium sulfate-induced inflammatory bowel disease in mice*

**Foguieng Sadie Roger Hermann, Koho Wamba Cédric, Mbiakop Mbakop Yvie Axelle, Bomba Tatsinkou Francis Désiré, Pouadjeu Manialeu Judith, Nguelefack-mbuyo Pami Elvine, Nguelefack Telesphore Benoit**

*University of Dschang, Dschang, Cameroon*

***Background/Aims:*** Inflammatory bowels diseases-(IBD) are serious and life-threatening diseases of the gastro-intestinal tract. The underlying etiology remains unknown, and the existing treatments are solely symptomatic. In order to provide an efficient remedy against this threat, the therapeutic effect of the leaves aqueous extract from *Kalanchoe crenata* (AEKC) was screened, based on its analgesic and anti-inflammatory activities.

***Materials and Methods:*** The disease was induced by oral administration of DSS (2.5%) in drinking water for 5 consecutive days and maintained with the administration of DSS at 0.7% in mice. AEKC was administered orally at the dose of 75, 150 and 300 mg/kg/day from day 6 of the experiment for 10 days. Hydrocortisone (10 mg/kg/day) was used as reference drug. Disease activity index (DAI) were daily evaluated by recording the score of weight loss, stool consistency and bloody stool. At the end of the treatment, colon length and spleen weight were also measured. In addition, the malondialdehyde (MDA), nitric oxide (NO) contents were determined with the activity of myeloperoxidase (MPO) in the colon.

***Results:*** The results demonstrate that AEKC significantly reduced the DAI by 38.66% compared to control. Furthermore, AEKC administration resulted in increase of 58.12% in body weight as compared to control. The colon length and the spleen weight were not significantly affected. However, AEKC significantly reduced the level of NO (46.83%) and MDA (70.85%) in the colon. They were no significant effect on MPO but bleeding and stool consistency were significantly ameliorated with the treatment.

***Conclusion:*** These results suggest that *K. crenata* is a good candidate for the treatment of IBD but may be unable to reduce immune cell infiltration in the colon.

***Keywords:*** IBD, kalanchoe crenata, oxydative stress

---

***PP-97***

## *A rare cause of gastrointestinal bleeding: Aortaenteric fistula*

**Gizem Özan[1], Fatih Kıvrakoğlu[2], Yunus Halil Polat[2], Rasim Eren Cankurtaran[2], Öykü Tayfur Yürekli[2], Osman Ersoy[2]**

*[1]Department of Internal Medicine, Ankara Yıldırım Beyazıt University, Ankara, Turkey*
*[2]Department of Gastroenterology, Ankara Yıldırım Beyazıt University, Ankara, Turkey*

***Introduction:*** Aortaenteric fistula (AEF) is defined as an abnormal connection between the gastrointestinal tract (GI) and the aorta. It's a rare cause of GIS bleeding with high mortality and morbidity.

***Case:*** A 70-year-old male patient admitted to emergency department with complaints of bright red feces had bloody defecation complaints for 1 month. Aneurysmatic dilatation about 90x82 mm wide extending to infrarenal level bifurcation level in abdominal aorta has been detected 3 months ago and follow-up has been planned. The patient complained of intermittent bloody stools and a palpable mass was observed around the umbilicus. Endoscopy revealed gastritis, hematogenous residues in the stomach and no bleeding detected. Colonoscopy revealed diverticula, polyps and hemorrhoids; active bleeding could not detected.The patient was hypotensive and CT angiography was performed,AEF at AA level at duodenum level 3 detected (Figure 1, 2). The patient underwent aorto-aortic tube graft implant surgery, but died due to Acute Renal Failure+Septic Shock on the postoperative 4$^{th}$ day.

***Conclusion:*** Abdominal aortic aneurysm is the most common cause of ARF. Less common causes include reflux esophagitis, peptic ulcer, pancreas pseudocyst, malignancies, embolizing stent erosion, aortitis, penetrating aortic ulcer, enteral stent, foreign bodies, paraaortic radiation, syphilis, tuberculosis and collagen vascular diseases. AEF is divided into primary(PAEF) and secondary(SAEF).The incidence of SAEF ranges between 0.36-1.6%; the incidence of PAEF is reported to be 0.06%.In the development of PAEF, mechanical factors and aortitis are thought to play a role and mostly (>75%) are seen in the 3rd and 4th part of the duodenum. There is no history of aortic surgery in PAEF and the fistula typically occurs in elderly patients, usually due to aneurysm resulting from atherosclerosis. The rupture of aorta to GIS is the most common presentation of AEF. Patients may present with massive or minor bleedings and may present with fatigue, weight loss, sepsis, lower extremity ischemia. AEF is difficultly diagnosed due to its rarity. Before massive bleeding»messenger bleeding»as described in a self-limiting episodes of bleeding is an important finding. Classic triad; GIS bleeding, abdominal pain, palpable mass is observed in 9-12% of patients. In hemodynamically stable patients, endoscopy may be considered in the diagnosis,but the sensitivity is 50%.In patients with high AEF suspicion,the superiority of bt angiography is higher.Unstable patients with known abdominal aortic aneurysms should be urgently scheduled for operation or endovascular intervention.

***Keywords:*** GIS bleeding, aortaenteric fistula

***PP-98***

## *EUS accuracy against MRCP for detection of pancreaticobiliary lesions*

**Mustafa Zanyar Akkuzu, Serkan Yaraş, Osman Özdoğan, Enver Üçbilek, Fehmi Ateş, Hatice Rızaoğlu Balcı, Ferzan Aydın, Orhan Sezgin, Engin Altıntaş**

*Department of Gastroenterology, Mersin Universty School of Medicine, Mersin, Turkey*

***Background/Aims:*** Pathologies such as stenosis, dilatation, stone, and tumor are detected by imaging methods. Clinical symptoms, laboratory and imaging methods that cause mechanical jaundice are reached. We aimed to compare the patients with MRCP and EUS in our clinic and to determine their superiority in diagnostic terms.

***Materials and Methods:*** The results of 135 patients who underwent MRCP and EUS together in the Hospital Gastroenterology Clinic of Mersin University Medical Faculty between 2010-2018 were compared and the results were compared. After reviewing the reports; stone, tumor and pancreatitis sensitivity data were evaluated and analyzed.

***Results:*** 71 (52.6%) of the patients were male and 64 (47.4%) were female. The mean age of males was 60.5±15.49 and the mean age of females was 61.2±14.25. The age range of our patients was 23-91. In 97 (71.85%) patients, MRCP and EUS were

reported in the same way and both imaging methods gave the correct results. There were 38 (28.14%) patients with different diagnoses and the total cases with stone, tumor and pancreatitis were evaluated and compared. The sensitivity of EUS for the stone was 88.88% and the MRCP was 81.48%. The sensitivity of EUS was 92.45% and 66.03% for MRI and Tumor and IPMN. In pancreatitis, the sensitivity of EUS was 89.65% and MRCP was 72.41%.

***Conclusion:*** EUS is a better diagnostic tool for the diagnosis of choledocholithiasis, tumor and pancreatitis than MRCP.

***Keywords:*** Endoscopic ultrasonography, magnetic resonance imaging, pancreatobiliary imaging

---

***PP-99***

## *Localization of gastric polyps, histopathologic features and evaluation of the relationship with helicobakter pylori; single center experience*

**Mustafa Zanyar Akkuzu, Osman Özdoğan, Serkan Yaraş, Enver Üçbilek, Fehmi Ateş, Engin Altıntaş, Orhan Sezgin**

*Department of Gastroenterology, Mersin Universty School of Medicine, Mersin, Turkey*

***Background/Aims:*** We aimed to evaluate the demographic data, localization, histopathological features, dimensions and the relationship between Helicobacter pylori and gastric polypectomies in our clinic.

***Materials and Methods:*** The patients with gastric polyps detected in the endoscopic procedures of our hospital between 2014-2019 were determined from the hospital data recording system.

***Results:*** A total of 70 patients had polyps in the stomach during this period. Twenty-seven (38.56%) males and forty-three (61.45%) were female. The mean age of the men was 61.7±17.3 years and the mean age of women was 63.1±24.6 years. Twenty-nine (41.43%) patients in antrum, twenty-eight (40%) patients in the corpus, in seven (10%) patients in the fundus, in four (5.71%) patients in the cardia, in two (2.86%) patients He was determined. When evaluated according to their diameter, 29 (41.43%) of the patients had polyps <1 cm, 25 cm (35.71%) had 1 cm-2 cm, 13 (18.57%) had ≥2 cm <3 cm and (4.28%) was ≥3 cm in the patient. When we examined the relationship of patients with Helicobacter pylori; Helicobacter pylori was mildly positive in only nine (12.85%) patients with four male and four female. Of these patients, seven had polyps in the corpus, one in the abdomen and one in the antrum. According to histopathological features, hyperplastic polyp was detected in 42 (60%) of the patients, and 4 (9.52%) of hyperplastic polyps had low-grade dysplasia. Five patients (8.5%) had neuroendocrine tumors and 7 (10%) patients had adenomatous polyps.

***Conclusion:*** In our patients, hyperplastic polyps were most frequently observed in accordance with the literature. Helicobacter pylori frequency was significantly associated with hyperplastic polyps. Gastric polyps are more common in women and middle-aged and the incidence of neuroendocrine tumors in the stomach increases. Most of the gastric epithelial polyps were smaller than 1 cm and most commonly localized in the antrum.

***Keywords:*** Gastric polyps, polypectomy, helicobacter pylori

---

***PP-100***

## *Effect of adalimubab on helicobacter infection in patients with ulcerative colitis*

**Ahmet Cumhur Dülger[1], Ahmet Melih Şahin[2]**

*[1]Department of Gastroenterology, Giresun University School of Medicine, Giresun, Turkey*
*[2]Department of Infectious Disease, Giresun University School of Medicine, Giresun, Turkey*

***Background/Aims:*** Ulcerative colitis (UC) is characterised by chronic immun-mediated inflammation of the colonic mucosa. Treatment with TNF-alpha inhibitors including adalimubab (ADA) should be considered for patients both of glucocorticoid-refractory disease or immunomodulatory unresponsive disease. Helicobacter pylori (HP) is a gram negative, spiral shaped, multiple unipolar flagellated and urease producing bacteria. Data are lacking about the effect of ADA treatment on Helicobacter pylori (HP) infection in patients with UC.

***Materials and Methods:*** In this single-center, retrospective study, we collected data of hospitalized patients with moderate to severe UC (27 patients; 15 men; mean age 54±14.3 years). The seroprevalence of IgG antibodies to Helicobacter pylori was examined by ELISA. All patients treated with ADA according to guidelines. To determine whether ADA theraphy was associated with a reduced rate of HP infection, patients were tested for HP infection by the end of 12 week of treatment. The control group comprised 151 dyspeptic subjects (100 women and 51 men, aged 30-85 years).

***Results:*** Current study enrolled 27 patients with UC, 20 of them were also receiving oral and enema forms of mesalazine, and 23 of them were previously treated with azathiopurine after experienced with corticosteroid treatment. All patients' serum were tested for HP infection by ELISA method. HP infection was defined as a positive result of serum HP immunoglobulin A levels. Overall, 18% of patients tested positive for HP infection at the end of the study. We found significantly lower rate of infection with HP in patients with ADA-treated patients with UC compared to the dyspeptic subjects (18% versus 58% $p<0.001$).

***Conclusion:*** Among patients with UC, treatment with ADA appeared to reduce the rate of HP infection as assessed by ELISA. We concluded that ADA treatment may cause a low demand for treatment of HP infection during treatment course of UC.

***Keywords:*** Ulcerative colitis, helicobacter pylori, adalimubab, Turkey

---

***PP-101***

## *Evaluation of the secondary eradication rate of helicobacter pylori at Yamagata prefectural Kahoku Hospital-potassium-competitive acid blocker vs lansoprazole*

**Kazutoshi Fukase**

*Department of Internal Medicine, Yamagata Prefectural Kahoku Hospital, Japan*

***Background/Aims:*** The eradication of *Helicobacter pylori* (*Hp*) extended to chronic gastritis, has been able to be covered by insurance since 2013 in Japan. However, the eradication rate of *Hp*tends to be decreasing in Japan.A new drug Potassium-competitive Acid Blocker (PCAB) came onto the market in 2015, has an effect expected to improve the eradication rate. We evaluate the secondary eradication rate of *Hp*at Yamagata Prefectural Kahoku Hospital.

***Materials and Methods:*** From April 2013 to December 2017, 654 patients were primary eradicated. At the same time, 77 patients were secondary eradicated: Lansoprazole 60mg + Amoxicillin 1500mg + Metronidazole 500mg/day×7days (LAM) 61 patients, PCAB 40mg + Amoxicillin 1500mg + Metronidazole 500mg/day×7days (PAM) 16 patients. The success of eradication was diagnosed by Urea Breath Test.

***Results:*** The secondary eradication rate of LAM was 83.6% (51/61) and of PAM was 81.3% (13/16).

***Conclusion:*** The primary eradication rate of PCAB-based regimen was superior to that of Lansoprazole-based at our hospital. However the secondary eradication rate was almost equal between two groups.

***Keywords:*** *Helicobacter pylori,* the secondary eradication rate, potassium-competitive acid blocker

***PP-102***

## *Higher anion GAP may predict the disease severity in patients with ulcerative colitis*

**Ahmet Cumhur Dülger**

*Department of Gastroenterology, Giresun University School of Medicine, Giresun, Turkey*

***Background/Aims:*** Ulcerative colitis (UC) is characterised by chronic immun-mediated inflammation of the colonic mucosa. The Truelove and Witts (TW) criteria have been used to define the severity of the UC. Otherhand, a simplier and unified laboratory tool is needed for better definition of high risk patients with UC. Elevated values of AG are mostly due to an increase in unmeasured anions (acetoacetatete and lactat) and less commonly is due to a decrease in unmeasured cations (calcium, magnesium, potassium).Values of AG are changed normally between 10 to 12 mmol/liter.The aim of the study was to determine the usefulness of anion gap (AG) as a biomarker which can easily and rapidly predict the severity of the disease, in which the patient will be advised to be hospitilized after the symptomatic treatment.

***Materials and Methods:*** In this single-center, retrospective cohort study, we collected data of hospitalized patients with UC (32 patients; 20 men; mean age 54±14.3 years). Demographic characteristics, results of colonoscopic examinations and laboratory tests were evaluated by clinicians between May 2017 and October 2018. Patients who were pregnant or younger than 17 years old or were taking steroids, mannitol, radiocontrast agents, alcohol, ethylene glycol were excluded from this analysis. In addition, patients with surrenal disorders; thyroid diseases and renal failure were also excluded from the study. The following information was extracted: age, gender, hematologic and biochemical markers, serum levels of TSH, cortisol, Na+, K+, glucose, urea, creatinine and albumin. We diagnosed acute severe colitis using the conventional Truelove and Witts criteria and AG was calculated using the equation (Na+ K) – ($HCO_3$-Cl).

***Results:*** Patients with higher AG were more likely to have severe UC as defined by having higher scores of TW criteria at baseline, compared to those in the patients with normal AG (67% vs 33%, p=0.003).Cross sectionally, higher AG was correlated with higher baseline WBC (r=3.2; CI:6.6 to 8.5; p=0.041), and lower hemoglobin levels (r=0.5, CI=4.5 to 4.8; p=0.043).

***Conclusion:*** A high AG can be considered as a useful biomarker in demonstrating the severity of the disease.AG can be considered as a useful biomarker in demonstrating the severity of the disease in addition to clinical, hemodynamic and other laboratory tests of patients as a guide in the management of patients admitted to the hospital with ulcerative colitis attack. The AG should be a part of the global evaluation of UC patients. But further studies are needed to determine a causal link between AG and UC.

***Keywords:*** Anion gap, ulcerative colitis, truelove, witts criteria

---

***PP-103***

## *The role of adipokines in gallstone disease in patients with non-alcoholic fatty liver disease*

**Tatyana Krolevets[1], Natalya Cherkashchenko[2], Maria Livzan[1]**

*[1]Omsk State Medical University, Omsk, Russia*
*[2]West-siberian Medical Center, Russia*

***Background/Aims:*** Evaluation of clinical and laboratory data, including insulin, leptin and adiponectin in patients with non-alcocholic fatty liver disease (NAFLD) in combination with galstone disease (GD).

***Materials and Methods:*** According to the design, the open comparative study with 215 patients with NAFLD was conducted. The following comparison groups were formed: group 1 (n=94)-patients with NAFLD without GD, group 2 (n=63)-patients with NAFLD and GD and group 3 (n=58)-patients with NAFLD, GD and previous cholecystectomy.

***Results:*** A high prevalence of coronary heart disease was detected in the group of patients with GD and cholecystectomy ($X^2$=6.198, p≤0.05); positive, statistically significant correlation relationships of cholelithiasis, cholecystectomy with ischemic heart disease ($r_s$=0.172, p≤0,05 and $r_s$=0.241, p≤0.05, respectively). Insulin and leptin resistance were registered in patients with NAFLD and GD: insulin level (14.5 (7.12-35.78) mkED/ml), HOMA-IR (5.23(2.35-11.45)), leptin (14.53(9.56-28.67) ng/ml), its soluble receptors (8.03(3.98-9.45) ng/ml). There was a statistically significant increase in adiponectin (U=1106, p≤0.05) for patients with NAFLD and GD. The level of leptin was statistically significantly higher and positively interrelated with cholecystectomy (H=5.812, p≤0.05, $r_s$=0.313, p≤0.05).

***Conclusion:*** Patients with NAFLD, GD and previous cholecystectomy have a high incidence of coronary heart disease; the phenomenon of insulin and leptin resistance, a high level of adiponectin were determined in patients with NAFLD and gallstone disease; hyperleptinemia was registered in patients with NAFLD and GD after cholecystectomy.

***Keywords:*** Non-alcoholic fatty liver disease, leptin, cholecystectomy

---

***PP-104***

## *Association of glutathione S-transferases gene polymorphisms with hepatocellular carcinoma in South of Iran*

**Atefeh Esmailnejad[1], Maryam Moeini[2], Ali Reza Safarpour[2]**

*[1]Shiraz University, Shiraz, Iran*
*[2]Shiraz University of Medical Sciences, Shiraz, Iran*

***Background/Aims:*** Hepatocellular carcinoma (HCC) has become the fourth commonest cause of death worldwide. Significant risk factors for the development of HCC are the chronic viral infection by hepatitis C virus (HCV), hepatitis B virus (HBV) and exposure to aflatoxin B1. As in many other diseases of multifactorial origin, the combination of genetic and environmental factors may be involved in the pathogenesis of HCC. The glutathione S transferases (GSTs) are a gene superfamily of phase II metabolic enzymes that detoxify free radicals, including products of oxidative stress, and carcinogens. In the present study, the risks associated between hepatocellular carcinoma and polymorphism of GSTT1 and GSTM1 genes was investigated in an Iranian population.

***Materials and Methods:*** The study was performed in 41 HCC patients and 80 age-and sex-matched healthy Iranian controls consulting the Motahari clinic, Shiraz University of Medical Sciences, Shiraz, Iran, between 2015 to 2019. GSTM1 and GSTT1 genotyping were performed using polymerase chain reaction and differences in the distribution of gene polymorphisms between the studied groups were analyzed statistically.

***Results:*** No significant difference was observed between control and HCC groups regarding GSTM1 gene polymorphism (p=0.90; OR=1.04; 95% CI=0.49-2.23). For GSTT1, although the frequency of GSTT1null genotype (GSTT-) was higher in HCC group (31.7% vs. 18.8%), the difference was not significant (p=0.11; OR=2.01; 95% CI=0.84-4.77).

***Conclusion:*** Absence of GSTs functional genes does not play an important role in the pathophysiology and development of HCC in Iranian population. Making a conclusion based on the results obtained from a small HCC patients group might not be very exact. More comprehensive studies with larger sample sizes are needed for a more precise conclusion.

***Keywords:*** Hepatocellular carcinoma, GSTs, polymorphism, Iran

***PP-105***

## *ALBI-U grading, which integrates albumin-bilirubin grade (ALBI) and the up-to-seven criteria (UTS), is a simple and useful prognostic prediction model for a small patient group with hepatocellular carcinoma (HCC): A single-center, retrospective analysis*

**Masaaki Watanabe, Hiroaki Yokomori**

*Kitasato University Medical Center, Tokio, Japan*

***Background/Aims:*** The aim of this single-center, retrospective study was to introduce ALBI-U grading, which combines ALBI and UTS (which uses minimal clinical information), and to assess its utility as a prognostic prediction model in a small group of HCC patients.

***Materials and Methods:*** Overall, 164 patients who were initially diagnosed with HCC at our center from January 2012 to January 2019 were enrolled. ALBI-U grading included ALBI-U6 grading (6 groups) and ALBI-U5 grading (5 groups) created by integrating ALBI and UTS (Figure 1). ALBI-U6 groups were: Group 1, ALBI-1 and UTS-in; Group 2, ALBI-2 and UTS-in; Group 3, ALBI-1 and UTS-out; Group 4, ALBI-3 and UTS-in; Group 5, ALBI-2 and UTS-out; and Group 6, ALBI-3 and UTS-out. ALBI-U5 groups were: Group 1, ALBI-1 and UTS-in; Group 2, ALBI-2 and UTS-in; Group 3, ALBI-1 and UTS-out or ALBI-3 and UTS-in; Group 4, ALBI-2 and UTS-out; and Group 5, ALBI-3 and UTS-out. ALBI-U grading was compared with conventional prognostic models such as BCLC staging, JIS score, and ALBI-T score by log-rank test and Akaike information criterion (AIC). Associations between prognoses predicted by ALBI-U grading and initial treatment were analyzed using the Cochran-Armitage test.

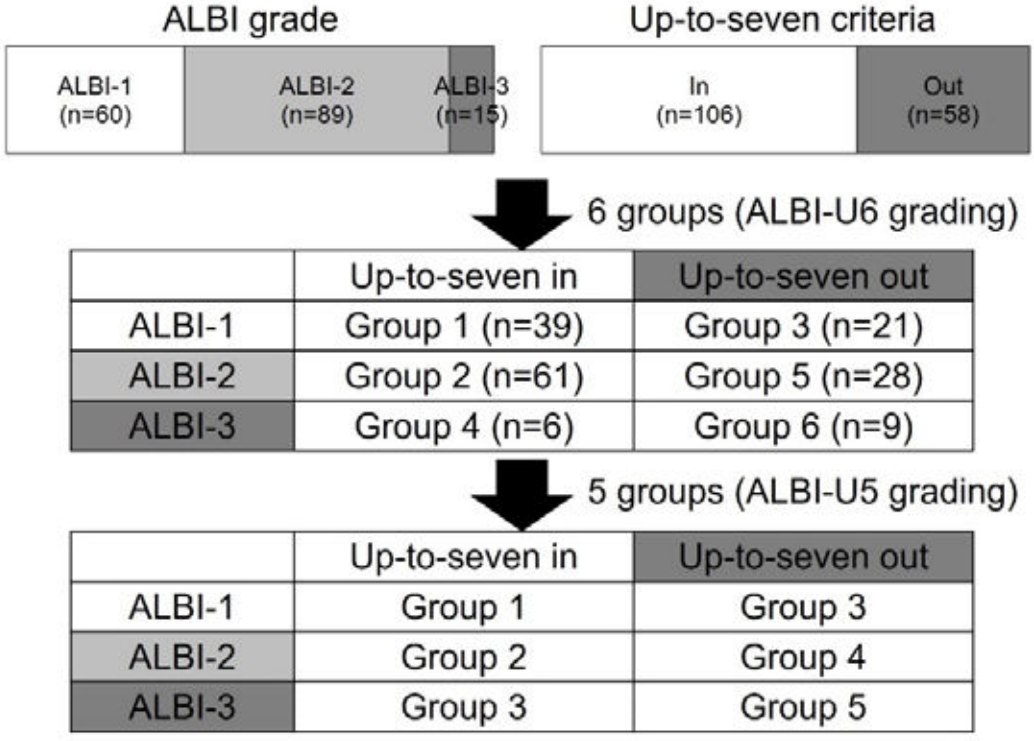
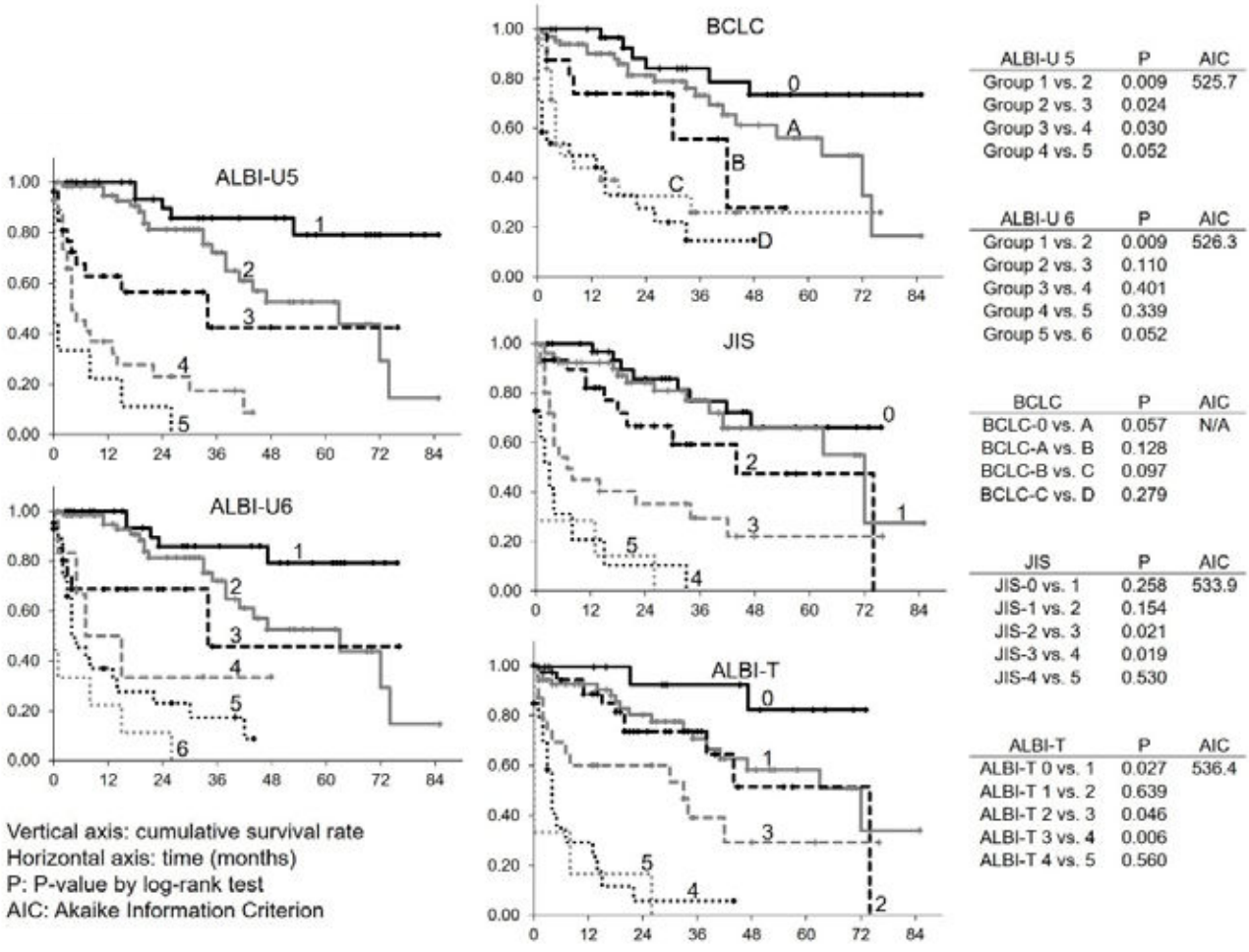



**Figure 1.** Classification of ALBI-U6 grading and ALBI-U5 grading based on integration of ALBI grade and up-to seven criteria

***Results:*** Figure 2 shows the survival curves of 164 patients classified by ALBI-U6/-U5 grading and conventional prognostic models. Log-rank test revealed more obvious stratifications between individuals when ALBI-U5 grading was used. The smallest AIC value (525.7) indicated that ALBI-U5 grading was a better prognostic model for these patients. Figure 3 shows the associations between HCC stage classified by ALBI-U grading and initial treatment. As prognosis worsened, the rate of patients who underwent best supportive care increased ($p<0.001$). Nevertheless, aggressive treatments such as TACE and TKIs were also given to patients with advanced-stage disease.

***Conclusion:*** ALBI-U grading, especially ALBI-U5 grading, is simple and useful for predicting HCC patient prognosis, even in a small sample size (e.g., a single hospital). However, ALBI-U grading cannot determine the most suitable treatment for individual HCC stages.

***Keywords:*** Hepatocellular carcinoma, albumin-bilirubin grade, up-to-seven criteria




| ALBI-U 5 | P | AIC |
|---|---|---|
| Group 1 vs. 2 | 0.009 | 525.7 |
| Group 2 vs. 3 | 0.024 | |
| Group 3 vs. 4 | 0.030 | |
| Group 4 vs. 5 | 0.052 | |

| ALBI-U 6 | P | AIC |
|---|---|---|
| Group 1 vs. 2 | 0.009 | 526.3 |
| Group 2 vs. 3 | 0.110 | |
| Group 3 vs. 4 | 0.401 | |
| Group 4 vs. 5 | 0.339 | |
| Group 5 vs. 6 | 0.052 | |

| BCLC | P | AIC |
|---|---|---|
| BCLC-0 vs. A | 0.057 | N/A |
| BCLC-A vs. B | 0.128 | |
| BCLC-B vs. C | 0.097 | |
| BCLC-C vs. D | 0.279 | |

| JIS | P | AIC |
|---|---|---|
| JIS-0 vs. 1 | 0.258 | 533.9 |
| JIS-1 vs. 2 | 0.154 | |
| JIS-2 vs. 3 | 0.021 | |
| JIS-3 vs. 4 | 0.019 | |
| JIS-4 vs. 5 | 0.530 | |

| ALBI-T | P | AIC |
|---|---|---|
| ALBI-T 0 vs. 1 | 0.027 | 536.4 |
| ALBI-T 1 vs. 2 | 0.639 | |
| ALBI-T 2 vs. 3 | 0.046 | |
| ALBI-T 3 vs. 4 | 0.006 | |
| ALBI-T 4 vs. 5 | 0.560 | |

**Figure 2.** Comparison of prognostic predicitaion models

| ALBI-U grading | | Aggressive treatment | | | | | |
|---|---|---|---|---|---|---|---|
| U5 | U6 | Resection | RFA | TACE/ TAE | TKI | CT | BSC (%) |
| Group 1 | Group 1 | 12 | 9 | 14 | 0 | 0 | 4 (10.3) |
| Group 2 | Group 2 | 6 | 14 | 34 | 0 | 0 | 7 (11.5) |
| Group 3 | Group 3 | 7 | 0 | 7 | 2 | 1 | 4 (19.0) |
| | Group 4 | 1 | 1 | 2 | 0 | 0 | 2 (33.3) |
| Group 4 | Group 5 | 1 | 0 | 12 | 4 | 0 | 11 (39.3) |
| Group 5 | Group 6 | 0 | 0 | 3 | 1 | 0 | 5 (55.6) |

**Figure 3.** Associations between HCC stage classified by ALBI-U grading and initial treatment
RFA, radiofrequency ablation; TACE/TAE, transcatheter arterial chemoembolization or transcatheter arterial embolization; TKI, tyrosine kinase inhibitor; CT, chemotherapy except TKI; BSC, best supportive care

***PP-106***

## *STAT3 decreased MIR-30A-5P TO increase ERRFI1 levels for maintaining colorectal cancer CEILS-derived cancer stem-like tumorspheres*

**Chun-chia Cheng[1], Yi-fang Chang[2], Ai-sheng Ho[3]**

*[1]Institute of Molecular and Genomic Medicine, National Health Research Institute, Taiwan*
*[2]Division of Hematology and Oncology, Department of Internal Medicine, Mackay Memorial Hospital, Taipei, Taiwan*
*[3]Division of Gastroenterology, Cheng-hsin General Hospital, Taipei, Taiwan*

***Background/Aims:*** STAT3 involving in tumorigenesis and cancer stemness is a therapeutic target against colorectal cancers. However, the detailed mechanism of STAT3 in the formation of CRC-derived tumorsphere is obscure.

***Materials and Methods:*** RNAseq and small RNAseq were used to uncover the potential genes and miRNAs involving in the formation of colorectal HCT116-and HT29-derived tumorspheres, and in the STAT3 knockdowned cells. Bioinformatic databases such as NetworkAnalyst and TargetScan were consequently used to figure out the potential mechanism in the tumorspheres.

***Results:*** We found that there were 103 genes simultaneously increased in the CRC tumorspheres. Moreover, there were 12 genes down-regulated in HT29shSTAT3 cells, including *NDRG1, ALDOC, BHLHE40, ATF3, C6orf223, JUND, ERRFI1, HK2, IT-PKA, PLOD2, IDI1, S100A14*. Among them, overexpression of NDRG1, *JUND,* and *HK2*, were associated with patient's overall survival probability. Furthermore, small RNAseq analysis indicated that miR-30a-5p decreased in CRC tumorspheres but increased in HT29shSTAT3. The miR-30a-5p was associated with better overall survival probability in patients with rectum cancer. In addition, ERRFI1 was the miR-30a-5p target.

***Conclusion:*** We found that STAT3 mediated the reduction of miR-30a-5p, that may result in overexpression of ERRFI1 for maintaining cancer stemness.

***Keywords:*** Colorectal cancer, STAT3, ERRFI1, miR-30a-5p

---

***PP-107***

## *Familial Mediterranean fever mutation analysis in pediatric patients with inflammatory bowel disease and its impact on the clinical course: A multicenter study*

**Nafiye Urgancı[1], Funda Özgenç[2], Zarife Kuloğlu[3], Hasan Yüksekkaya[4], Sinan Sarı[5], Tülay Erkan[6], Zerrin Önal[7], Gönül Çaltepe[8], Turkish Ibd Study Group[9]**

*[1]Division of Pediatric Gastroenterology, Health Sicence University, Şişli Hamidiye Etfal Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Pediatric Gastroenterology, Ege University School of Medicine, İzmir, Turkey*
*[3]Department of Pediatric Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[4]Department of Pediatric Gastroenterology, Meram University School of Medicine, Konya, Turkey*
*[5]Department of Pediatric Gastroenterology, Gazi University School of Medicine, Ankara, Turkey*
*[6]Department of Pediatric Gastroenterology, İstanbul University-Cerrahpaşa, Cerrahpasa School of Medicine, İstanbul, Turkey*
*[7]Division of Pediatric Gastroenterology, Health Sicence University, Kanuni Sultan Süleyman Training and Research Hospital, İstanbul, Turkey*
*[8]Department of Pediatric Gastroenterology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[9]Turkish Ibd Study Group, Turkey*

***Background/Aims:*** The aim of the study was to evaluate familial Mediterranean fever mutation analysis in pediatric patients with inflammatory bowel disease and its impact on the clinical course of the disease.

***Materials and Methods:*** A total of 597 children (mean age: 10.8±4.6 years, M/F:1.05) with inflammatory bowel disease (334 ulcerative colitis, 224 Crohn's disease, 39 indeterminate colitis) were tested for familial Mediterranean fever mutations. The distribution of mutations according to disease type, histopathological findings and disease activity indexes were determined.

***Results:*** 41.9% of the patients with inflammatory bowel disease had FMF mutations. E148Q was the most common mutation in ulcerative colitis (UC) and Crohn's disease (CD), and M694V in indeterminate colitis (IC) (30.5%, 34.5%, 47.1%, respectively). There was significant difference in terms of endoscopic and histopathological findings according to mutation types (homozygous/heterozygous) in patients with UC ($p<0.05$), whereas no significant difference was observed in patients with CD. There was statistically significant difference between colonoscopy findings in patients with or without mutations ($p=0.031$, $p=0.045$, respectively). Moderate mucosal fragility was common in patients with mutations and hemorrhagic ulcer was common in patients without mutations. Localized disease rate was increased in patients with CD with mutations ($p=0.031$). When colonoscopy findings were examined according to mutation genotypes among patients with CD, the diffuse disease rate was lower in patients who had M694V mutation than the patients with other mutations ($p=0.039$). The patients with UC who had mutations had lower pediatric ulcerative colitis activity index (PUCAI) scores than the patients without mutations ($p=0.007$). No statistically significant difference was observed in terms of pediatric Crohn's disease activity index (PCDAI) among patients with CD whether they had mutations or not.

***Conclusion:*** Although no association was established between types of FMF mutations and disease distribution in UC, there was statistically significant difference in patients with CD. Therefore, the patients with inflammatory bowel diseases should be screened for MEFV gene mutations for early diagnosis and treatment of comorbid inflammatory disease FMF which may worsen the course.

***Keywords:*** Children, familial Mediterranean fever, MEFV, mutation analysis, inflammatory bowel disease

***PP-108***

## *Hepatitis B vaccination and factors related with unresponsiveness in healthy children*

**Nafiye Urgancı[1], Ayşe Sancak Özer[2], Derya Kalyoncu[2]**

*[1]Division of Pediatric Gastroenterology, Şişli Etfal Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Pediatrics, Şişli Etfal Training and Research Hospital, İstanbul, Turkey*

***Background/Aims:*** The aim of this study was to assess the effectiveness of HBV vaccination and factors associated with vaccine unresponsiveness in healthy children.

***Materials and Methods:*** A total of 141 healthy children aged between 2-5 years were included in the study. All of the cases had received 20 µg of recombinant DNA vaccine for hepatitis B (0,1 and 6 months). Demographic features and the factors such as duration of breastfeeding, exposure to HBsAg-positive family members, administration of concomitant vaccines and exposure to smoke were determined. HBV serological markers were evaluated. Postvaccination serologic evaluation was performed one month after the last dose of primary vaccination, one month after the booster dose. HLA typing was performed in nonresponders.

***Results:*** 87.9% of the children achieved seroprotection (anti-HBs titres ≥10 mIU/ml) one month after primary vaccination. No difference was observed between vaccine responsiveness and age, sex, birth weight, maturity, duration of breastfeeding, exposure to HBsAg-positive family members and mid-upper arm circumference ($p$>0.05). A significant correlation was obtained between anti-HBsAg titers and mid-upper arm circumference ($p$=0.005). HLA types, DRB 111 (64.7%), B5 (52.9%), DRB 104 (52.9%) and DRB 11001 (47%) were detected at increased frequency in nonresponders.

***Conclusion:*** The antibody titers were significantly higher in children who breastfed for the first 6 months and longer and who were vaccinated concomitantly with other common vaccines.

***Keywords:*** Children, hepatitis B vaccination, responsiveness

---

***PP-109***

## *Polymorphism of the toll-like receptor-1 (RS4833095 AND RS5743551) is associated with the development of spontaneous bacterial peritonitis and mortality*

**Ramazan Dertli[1], Murat Bıyık[2], Muharrem Keskin[2], Ramazan Yolaçan[3], Mine Balasar[4], Ahmet Karakarçayıldız[3], Yusuf Kayar[1], Hüseyin Ataseven[2], Hakkı Polat[3], Ali Demir[2], Mehmet Asil[2]**

*[1]Department of Internal Medicine, Division of Gastroenterology, Van Education and Research Hospital, Van, Turkey*
*[2]Department of Internal Medicine, Division of Gastroenterology, Necmettin Erbakan University, Meram School of Medicine, Konya, Turkey*
*[3]Department of Internal Medicine, Necmettin Erbakan University, Meram School of Medicine, Konya, Turkey*
*[4]Department of Medical Genetics, Necmettin Erbakan University, Meram School of Medicine, Konya, Turkey*

***Background/Aims:*** Spontaneous bacterial peritonitis (SBP) is an infectious complication of cirrhosis and has a high mortality rate despite hospitalization, antibiotic and supportive treatment. Mutations in the coding regions of the single nucleotide polymorphisms and promoters of the nucleotide binding oligomerization domain (NOD) or toll-like receptors (TLR) have been reported to increase the risk of SBP. In this study, we aimed to investigate the relationship between the development of peritonitis in patients with decompensated cirrhosis and ascites, TLR-1 rs4833095 and rs5743551 polymorphisms and the other factors affecting the mortality of patients.

***Materials and Methods:*** Patients with chronic liver failure who were followed-up in the NEU Meram Medical Faculty gastroenterology clinic were included in the study and followed up for 8 months (1-36). 5 cc venous blood was taken from the patients and stored at-80 ° C in an edta tube. The polymorphisms of rs5743551 and rs4833095 were studied by real time PCR.

***Results:*** The study was included 264 patients. The mean age of all patients was 60.6±12.4, and 159 (60.2%) of the patients were male. The mean follow-up period was 16,8±11 months. Of the 264 patients included in the study, 228 were ascites detected or ascites up to the end of follow-up period and in 67 (29.4%) of these patients, SBP developed. We determined that SBP development, CHILD B, CHILD C and hepatocellular carcinoma(HCC) were independent risk factors affecting survival during the whole follow-up period. The 12-month survival rate of patients with SBP was found to be 35.8%. rs4833095 polymorphism was associated with the development of SBP (p=0.019). The laboratory, clinical and demographic characteristics of the patients with and without SBP are given in Table 1. We found that 12-month survival of patients with SBP was associated with rs4833095 polymorphism (log-rank test, chi-square=7.04, p=0.008) (Figure 1). While 88 (33.3%) of all patients had HCC, 61 (26.8%) had HCC in 228 patients with ascites. In our patient group, TLR-1 (rs4833095) polymorphism was not associated with HCC development (p=0.091), TLR-1 (rs5743551) polymorphism was found to be associated with HCC development (p=0.012). The laboratory, clinical and demographic characteristics of all patients who developed and did not develop HCC are given in Table 2.

***Conclusion:*** In this study, we found that TLR1 (rs4833095) polymorphism was associated with the development of SBP. As in our study, SBP development in the literature has high mortality in cirrhotic patients. In patients with SBP, 12-month mortality of patients with TLR1 (rs4833095) polymorphism is higher than those without TLR1 (rs4833095) polymorphism, which is important for the follow-up, treatment and time of transplantation of cirrhotic patients.

***Keywords:*** Toll-like receptor-1, spontaneous bacterial peritonitis, hepatocellular carcinoma

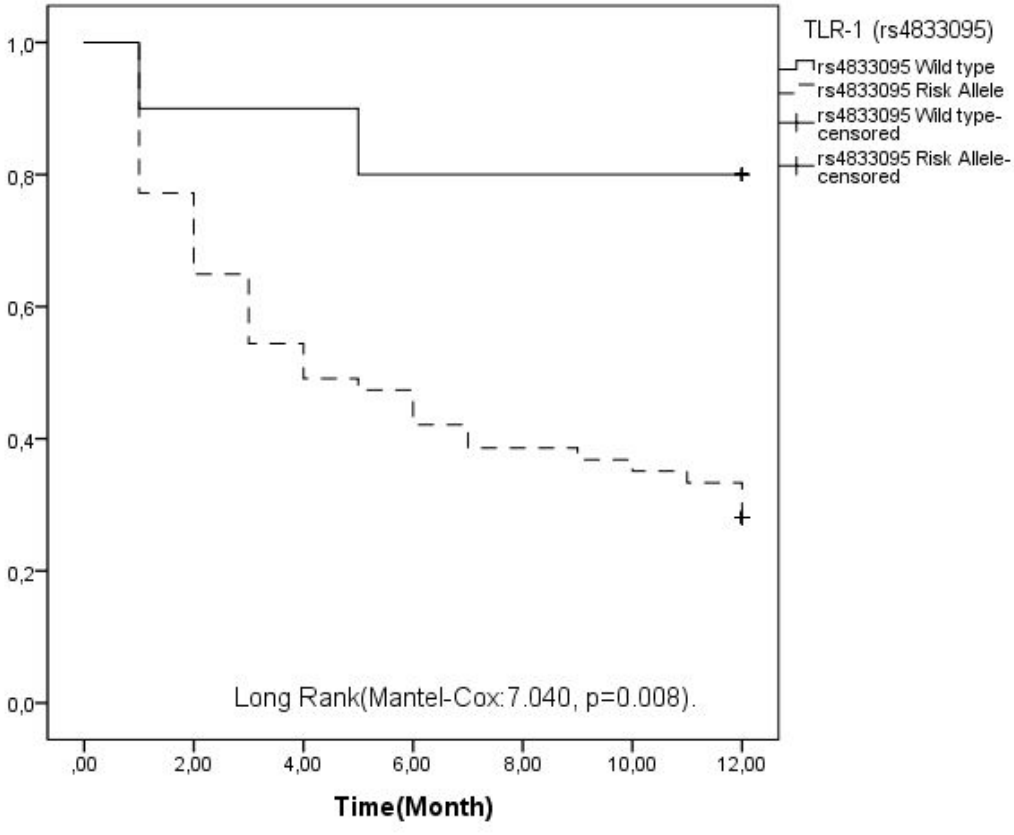


***Table 1.*** Laboratory, clinical and demographic characteristics of patients with ascites at the time of admission

| | With Peritonitis (n=67) | Without Peritonitis (n=161) | All Patients (n=228) | p |
|---|---|---|---|---|
| Age (years) | 58.6 (12.3) | 61.1 (12.5) | 60.4 (12.5) | 0.166 |
| Gender | | | | 0.264 |
| Male (n,%) | 35 (52.2) | 97 (60.2) | 132 (57.9) | |
| Female (n,%) | 32 (47.8) | 64 (39.8) | 96 (42.1) | |
| Meld Score | 12.9 (7.5) | 10.4 (6.1) | 11.2 (6.6) | <0.001 |
| Child-Pugh Class | | | | 0.006 |
| A (n,%) | 10 (14.9) | 52 (32.3) | 62 (27.2) | |
| B (n,%) | 37 (55.2) | 84 (52.2) | 121(53.1) | |
| C (n,%) | 20 (29.9) | 25 (15.5) | 45 (19.2) | |
| Etiology | | | | 0.567 |
| Chronic hepatitis B (n,%) | 30 (44.8) | 66 (41.0) | 96 (42.1) | |
| Chronic hepatitis C (n,%) | 8 (11.9) | 23 (14.3) | 31 (13.6) | |
| Cryptogenic (n,%) | 15 (22.4) | 39 (24.2) | 54 (23.7) | |
| Autoimmune (n,%) | 4 (6.0 | 12 (7.5) | 16 (7.0) | |
| Alcohol (n,%) | 5 (7.5) | 7 (4.3) | 12 (5.3) | |
| Other (n,%) | 5(7.4) | 14 (8.7) | 19 (8.3) | |
| HCC | | | | 0.197 |
| With (n,%) | 14 (20.9) | 47 (29.2) | 61 (26.8) | |
| Without (n,%) | 53 (79.1) | 114 (70.8) | 167 (73.2) | |
| rs4833095 | | | | 0.015 |
| Wild type (n,%) | 10 (14.9) | 48 (29.8) | 58 (25.4) | |
| Heterozygote (n,%) | 42 (62.7) | 69 (42.9) | 111 (48.7) | |
| Homozygote (n,%) | 15 (22.4) | 44 (27.3) | 59 (25.9) | |
| rs4833095 | | | | 0.012 |
| Wild type (n,%) | 10 (14.9) | 48 (29.8) | 58 (25.4) | |
| Mutant (n,%) | 57 (85.1) | 113 (70.2) | 170 (74.6) | |
| rs5743551 | | | | 0.686 |
| Wild type (n,%) | 37 (55.2) | 79 (49.1) | 116 (50.9) | |
| Heterozygote (n,%) | 14 (20.9) | 40 (24.8) | 54 (23.7) | |
| Homozygote (n,%) | 16 (23.9) | 42 (26.1) | 58 (25.4) | |
| rs5743551 | | | | 0.397 |
| Wild type (n,%) | 37 (55.2) | 79 (49.1) | 116 (50.9) | |
| Mutant (n,%) | 30 (44.8) | 82 (50.9) | 112 (49.1) | |

***Table 2.*** Clinical and demographical characteristics and laboratory data of the groups

| | With HCC (n=88) | Without HCC (n=176) | All Patients (n=264) | p |
|---|---|---|---|---|
| Age (years) | 62.3 (10.0) | 59.8 (13.4) | 60.6 (12.4) | 0.117 |
| Gender | | | | 0.008 |
| Male (n,%) | 63 (71.6) | 96 (54.5) | 159 (60.2) | |
| Female (n,%) | 25 (28.4) | 80 (45.5) | 105 (39.8) | |
| Meld Score | 10.6 (6.6) | 11.1 (6.6) | 10.9 (6.6) | 0.571 |
| Child-Pugh Class | | | | 0.267 |
| A (n,%) | 34 (38.6) | 53 (30.1) | 87 (33) | |
| B (n,%) | 42 (47.7) | 88 (50) | 130 (49.2) | |
| C (n,%) | 12 (13.6) | 35 (19.9) | 47 (17.8) | |
| Etiology | | | | <0.001 |
| Chronic hepatitis B (n,%) | 57 (64.8) | 63 (35.8) | 120 (45.5) | |
| Chronic hepatitis C (n,%) | 15 (17.0) | 22 (12.5) | 37 (14.0) | |
| Cryptogenic (n,%) | 9 (10.2) | 48 (27.3) | 57 (21.6) | |
| Autoimmune (n,%) | 0 (0) | 16 (9.1) | 16 (6.1) | |
| Alcohol (n,%) | 2 (2.3) | 10 (5.7) | 12 (4.5) | |
| Other (n,%) | 5 (5.7) | 17 (9.7) | 22 (8.3) | |
| rs4833095 | | | | 0.239 |
| Wild type (n,%) | 17 (19.3) | 51 (29.0) | | |
| Heterozygote (n,%) | 47 (53.4) | 83 (47.2) | | |
| Homozygote (n,%) | 24 (27.3) | 42 (23.9) | | |
| rs4833095 | | | | 0.091 |
| Wild type (n,%) | 17 (19.3) | 51 (29.0) | 68 (25.8) | |
| Mutant (n,%) | 71 (80.7) | 125 (71.0) | 196 (74.2) | |
| rs5743551 | | | | 0.041 |
| Wild type (n,%) | 36 (40.9) | 101 (57.4) | 137 (51.9) | |
| Heterozygote (n,%) | 25 (28.4) | 35 (19.9) | 60 (22.7) | |
| Homozygote (n,%) | 27 (30.7) | 40 (22.7) | 67 (25.4) | |
| rs5743551 | | | | 0.012 |
| Wild type (n,%) | 36 (40.9) | 101 (57.4) | 137 (51.9) | |
| Mutant (n,%) | 52 (59.1) | 75 (42.6) | 127 (48.1) | |
| Creatinine (mg/dl) | 0.83-0.25 | 0.86-0.37 | 0.85-0.34 | 0.575 |
| Albumin (g/dl) | 3.29-0.67 | 3.10-0.59 | 3.16-0.62 | 0.035 |
| Total bilirubin (mg/dl) | 2.37-3.28 | 3.76-5.89 | 3.35-5.29 | 0.026 |
| Leukocyte (1000/mm$^3$) | 7.03-4.36 | 6.26-3.10 | 6.50-3.53 | 0.139 |
| Platelet (1000/mm$^3$) | 126.0-64.30 | 123.70-66.10 | 124.4-65.40 | 0.808 |
| INR | 1.40-0.30 | 1.50-0.41 | 1.47-0.38 | 0.066 |
| AFP(U/ml) | 892.8-3869.8 | 7.31-20.88 | 285.35-2196.0 | 0.007 |

***PP-110***

## *Effect of prophylactic clip application for the prevention of postpolypectomy bleeding in large pedunculated colonic polyps: a randomized controlled multicenter trial*

**Jeong-seon Ji[1], Kang-moon Lee[2], Seung-woo Lee[3]**

*[1]Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Korea*
*[2]St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, Korea*
*[3]Daejeon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Korea*

***Background/Aims:*** The risk of bleeding is higher after resecting of large pedunculated colonic polyps, because of the presence of a large artery in the stalk. Preventive methods such as endoloop and epinephrine injection have been proposed in the management of postpolypectomy bleeding in large colonic polyps. For prophylactic clip, there was no randomized controlled study assessing the efficacy in prevention of postpolypectomy bleeding for the large pedunculated polyps. The aim of this randomized controlled trial was to confirm the efficacy of application of prophylactic clip in the prevention of postpolypectomy bleeding in large polyps.

***Materials and Methods:*** A total of 190 patients who had pedunculated colorectal polyps with heads larger than 10 mm and stalks larger than 5 mm in diameter were included. In clip group, hemoclips were applied to the base of the stalk, followed by conventional snare polypectomy. In conventional group, conventional snare polypectomy was done without any preventive management. Immediate and delayed bleeding complications were assessed.

***Results:*** A total of 102 and 105 polyps were randomized to clip group and conventional group, respectively. Clip application was possible in all the cases in clip group. There were 5 cases of bleeding in clip group (4.9%) and 15 cases in conventional group (14.3%) (p=0.047). Immediate bleeding episodes occurred in 4/5 polyps in the clip group and 14/15 polyps in the conventional group. One case of delayed bleeding was observed in both groups.

***Conclusion:*** The application of a prophylactic clip is effective in the prevention of postpolypectomy bleeding in large pedunculated colonic polyps.

***Keywords:*** Colon, polyp, bleeding

---

***PP-111***

## *Inappropriate prescription of oral proton pump inhibitors in patients with acute pancreatitis: a retrospective cross-sectional study*

**Abdurrahman Aykut[1], Hatice Rızaoğlu Balcı[2], Ferzan Aydın[2], Mustafa Zanyar Akkuzu[2], Osman Özdoğan[2], Serkan Yaraş[2], Enver Üçbilek[2], Fehmi Ateş[2], Orhan Sezgin[2], Engin Altıntaş[2]**

*[1]Department of Internal Medicine, Mersin University School of Medicine, Mersin, Turkey*
*[2]Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Based on current literature data and our clinical experience, we are facing a general overuse of proton pump inhibitors (PPIs) on many fields in medicine. Unfortunately, the situation is similar in the clinical practice of acute pancreatitis (AP), even though the international and national guidelines do not recommend their routine administration. Our aim was to evaluate the safety, efficiency and necessity of PPI application in patients with AP with a retrospective cohort analysis.

***Materials and Methods:*** AP patients' data between January 2014-December 2018 would were welcome. PPI prescribing indication and dose were evaluated by sequential medical records in consecutive hospitalized AP patients. Data were collected

about the effects on mortality and disease severity to investigate its efficacy. Comparisons were made with current published prescribing guidelines.

***Results:*** 422 patients were included. A total of 341 patients were mild and 81 patients were moderate-severe pancreatitis. 12.79% were using PPI prior to hospital admission. PPI was recommended in 67.30% hospitalization. 85% were for inappropriate or indeterminate indications. They were prescribed 49.29% at the time of discharge. In a multivariate analysis, age, AP severity was related to PPI prescription; mortality, complications (GI bleeding and infection) and hospital stay were not related. Patients with moderate-severe AP were started with more PPI and higher doses ($p < 0.003$).

***Conclusion:*** In conclusion, we can state that not administrating PPIs during AP did not elevate the risk for gastrointestinal bleeding; they did not influence the disease severity, complication or mortality. Therefore routine administration of PPIs is not recommended in patients with AP based on our current results.

***Keywords:*** Acute pancreatitis, proton pump inhibitor, inappropriate diet

---

***PP-112***

## *Comparison of the eradication rates of five treatment regimens for helicobacter pylori infection*

**Soo Yeon Choi, Jin Il Kim, Dae Young Cheung**

*Yeouido St. Marys Hospital, The Catholic University of Korea College of Medicine, Korea*

***Background/Aims:*** The eradication rates of the standard triple therapy have decreased, mainly because of the development of antibiotic resistance. We compared the efficacy of standard triple therapy with four different therapeutic regimens for H. pylori eradication.

***Materials and Methods:*** This was a single-center, prospective randomized controlled study involving 1,500 patients diagnosed as H. pylori infection by Warthin-Starry silver staining between January 2015 and June 2018. We compared 5 treatment regimens and 300 patients were enrolled in each group: the triple group was treated with clarithromycin based triple therapy for 7 days; the triple with probiotics group was treated with triple therapy and lactobacillus for 7 days; the sequential therapy consisted of rabeprazole and amoxicillin for the initial 5 days, followed by rabeprazole, clarithromycin, and metronidazole for the subsequent 5 days; the concomitant therapy consisted of rabeprazole, amoxicillin, clarithromycin, and metronidazole for 7 days; the tailored group was treated with triple therapy in the absence of 23S rRNA point mutation while clarithromycin was replaced by metronidazole when the mutation was detected. In 6 weeks after the therapy, successful eradication was confirmed by 13C-urea breath test. Adverse events and drug compliance were evaluated via direct questioning.

***Results:*** The mean age was 57.2 years. There were 776 male and 724 female patients. The eradication rates were 91.2% in the concomitant group, 90.7% in the tailored group, 85.1% in the sequential group, 81.2% in triple with probiotics group and 76.2% in triple group ($p=0.135$). The second-line therapy was applied to 178 patients, and the eradication rate was 69.8%. The eradication rate for the third-line therapy was 53.4%. Drug compliance and adverse events were not statistically different among the three groups.

***Conclusion:*** In areas where resistance of clarithromycin is high, concomitant and tailored therapy may be more effective than sequential and triple with probiotics and triple therapy for H. pylori eradication.

***Keywords:*** *Helicobacter pylori,* eradication, drug resistance

***PP-113***

## *Helicobacter pylori rate and histopathological evaluation in HBEAG-negative chronic HBV infection*

**Osman Özdoğan, Serkan Yaraş**

*Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Helicobacter pylori (HP) studies on liver diseases and hepatitis B virus (HBV) have been increasing and discussed for many years. Most studies investigating the relationship between HP and HBV have been conducted in patients with cirrhosis and hepatocellular carcinoma (HCC) and usually noninvasive tests was used and HP frequency was found to be higher than healthy controls. No histopathological evaluation was performed in these studies.

***Materials and Methods:*** We received ninety-five patients with HBeAg-negative chronic HBV infection (previously termed 'inactive carrier') who had not received any treatment before. A control group consisted of 107 healthy person. Biopsies were obtained from the antrum and corpus and were evaluated histopathologically using the sydney classification system. HP was considered positive in any positive detection.

***Results:*** The rate of HP in inactive hepatitis b carriers was significantly higher than the control group (75.6%, 53.3%, respectively; p=0.001). There was no difference in incidence of atrophy, intestinal metaplasia, activity and inflammation (13.3% versus 10.3%, 13.3% versus 13.1%, 75.6% versus 68.2%, 91.1% versus 91.6%, respectively; p>0.05). Peptic ulcer was detected in 11 patients (12.2%) in HBV group and in 7 patients (6.5%) in control group (p=0.360). The incidence of HP was higher in patients with HBV DNA≥2000 IU/mL than in patients with HBV DNA<2000 IU/mL, but this difference was not statistically significant ( 85%, 68%, respectively; p=0.062).

***Conclusion:*** Although the HP rate in inactive hepatitis b carriers was higher than the control group, there was no difference in atrophy, intestinal metaplasia, activity, inflammation and peptic ulcer frequency.

***Keywords:*** Hepatitis B, Helicobacter Pylori, endoscopy

---

***PP-114***

## *Severe liver atrophy induced by oxaliplatin-based sox chemotherapy for advanced gastric cancer*

**Koji Miura, Takayoshi Murakami, Taiji Tohyama, Tsuyoshi Terada, Yasutaka Kudou, Yoshimi Fujimoto, Takuya Nishina, Nobutaka Murashima, Takamasa Matsumoto**

*Kurashiki Medical Center, Okayama, Japan*

Oxaliplatin is a key drug in SOX and FOLFOX therapy. However, sinusoidal endothelial cell damage known as sinusoidal obstruction syndrome (SOS), has been reported as one of its side effects. This is known to be a case of splenomegaly and thrombocytopenia. Here, we report a case of severe liver atrophy without splenomegaly and thrombocytopenia induced by SOX therapy for advanced gastric cancer with a review of the literature. A 66-year-old man presented to our hospital with large bowelobstruction due to transverse colon invasion of gastric cancer in July 2018. He was diagnosed with gastric cancer cT4bN1M1 stage IV. We performed ileostomywith double orifice, and postoperative SOX therapy was initiated. His platelet count decreased in the 3rd course, and wereduced the dose of oxaliplatin from 170 mg to 130 mg and carried out a total of 7 cycles.In January 2019, CT showed progressive disease, and mild liver atrophy and minor ascites were observed. However, ascites cytopathology showed no malignant cells and Serum–Ascites albumin gradient was 1.5g/dl. We changed to RAM+ nab-PTX therapy, but febrile neutropenia occurred. Treatment was changed to sole RAM. However, abdominal CT in April 2019 revealed severe liver atrophy and massive ascites fluid. The liver volume was 1320 $cm^3$before treatment, 965 $cm^3$ (73%) after 7 cycles of SOX therapy, and 500 $cm^3$ (38%) 5 months after the SOX therapy, with difficulty in ascites control and progressive liver atrophy. In this case, there was no liver metastasis, portal vein tumor embolism, fatty liver, and splenomegaly on imaging. In blood tests, HCV antibody and HBV-DNA were negative. During the course of treatment, transaminase did not exceed 100 U/ml, there was no T-Bil elevation and the platelet reduction

was reversible. Blood analysis in May 2019 shows a slight increase with type 4 collagen 7S 11 ng/ml, M2BPG 2.11 (1+) and a massive increase in hyaluronic acid to 1850 ng/ml. On the bases of these results, we suspected endothelial cell damage by oxaliplatin was the cause of liver atrophy. In this case, general liver dysfunction was mild during the course, and there was no progression of the thrombocytopenia and splenomegaly. We experienced a rare clinical condition featuring progressive severe hepatic atrophy and massive ascites retention. So far two similar cases with severe liver atrophy have been reported, but no general liver dysfunction or splenomegaly were found. Therefore, our case suggests that care must be taken in oxaliplatin-based chemotherapy.

***Keywords:*** Oxaliplatin, liver atrophy, sinusoidal obstruction syndrome

---

***PP-115***

## *Inflammatory bowel disease in pregnant women*

**Sayed Jalaladin Nagshbandi[1], Sudabeh Alatab[2], Homayoon Vahedi[2], Alireza Sima[2], Amir Anushravani[2], Masoud M Malekzadeh[2]**

*[1]Liver and Digestive Research Center, Kurdestan University of Medical Sciences, Sanandaj, Iran*
*[2]Digestive Disease Research Center, Digestive Disease Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** The inflammatory bowel diseases (IBD) affects the young people of reproductive age. There is little knowledge about complications from IBD during pregnancy and delivery. Here we aimed to evaluate the possible IBD effects in pregnancy.

***Materials and Methods:*** This observational, retrospective study was conducted on female IBD aged between 15 and 50 years who referred to GI clinic of Shariati Hospital from 2013-2017. Single women were excluded from study. Details on disease activity, prenatal complications, delivery and neonatal outcome were collected through medical report.

***Results:*** Among 1499 enrolled patients, 85.1% had UC and 14.2% had CD. About 17.6% of women did not have children. Almost 2.6% of subjects did not have desire to have children. No significant relation was found between the type of inflammatory bowel disease and the fertility status. The age of disease diagnosis was significantly higher in women who had at least one child ($p<0.0001$). Moreover, a significant relation existed between IBD and abortion. More than 78% of women had at least one abortion. The number of abortions was higher in patients with ulcerative colitis. Cesarean delivery was more prevalent in UC than CD, although no significant association was found between type of delivery and IBD type.

***Conclusion:*** Our results suggest that women with IBD should not be so worried about a negative impact of their disease, disease activity, or medications on their infertility life. Although having a comprehensive and interdisciplinary approach to managing their pregnancy could re-assuring and minimize the disease related complication of pregnancy.

***Keywords:*** Inflammatory bowel disease, pregnancy, safety

---

***PP-116***

## *Rectal vs colon cancer in low-income countries*

**Marsela Sina, Skerdi Prifti, Dorina Osmanaj, Adea Kocollari**

*Clinic of Gastrohepatology, University Hospital Center Mother Teresa, Tirana, Albania*

***Background/Aims:*** Rectal and colon cancers account for 10.2% of the total cancers with 1.8 million cases in 2018 worldwide. Rectal cancer is the largest proportion of colorectal cancer in low-risk countries. Albania, is a low-income country in Southeast Europe, where dietary habits and lifestyle is changing rapidly. The aim of this study was to report the ratio of rectal cancer to all colorectal cancer (CRC) in our country.

***Materials and Methods:*** This was a prospective study carried out at the University Clinic of Gastrohepatology, University Hospital Center Mother Teresa in Tirana, Albania. Consecutive patients diagnosed with CRC by colonoscopy and confirmed by histopathology, during January 2011-September 2016 were included in this study. After colonoscopy was performed, patients were divided into two groups: rectal cancer group and the colon cancer group.

***Results:*** A total of 262 patients were included in this study. The mean age at diagnosis was 62.7±11.0 yrs, with a male to female ratio 1:1.27. Rectal cancer was identified in 123 (46.9%) patients while colon cancer in 139 (53.1%) patients (Figure 1). There were no statistical significant differences between rectal and colon cancer groups regarding age and gender (Table 1).

***Conclusion:*** In Albanian population despite rapid changings of lifestyle, rectal cancer is the main part of all CRC is higher than in Western European countries. This findings concords with other studies suggesting a higher incidence of rectal cancer in low income populations.

***Keywords:*** Rectal cancer, colon cancer, developing countries

***Table 1.*** Demographic characteristics of two groups

| Characteristic | Rectal cancer | Colon cancer | P value |
|---|---|---|---|
| Mean age (years) | 62.91±10.36 | 62.50±11.59 | 0.246 |
| Gender | | | |
| Male, n (%) | 67 (45.6) | 80 (54.4) | |
| Mean age | 63.31±10.23 | 63.80±11.75 | 0.760 |
| Female, n (%) | 56 (48.7) | 59 (51.3) | |
| Mean age | 61.73±10.22 | 61.44±11.63 | 0.913 |

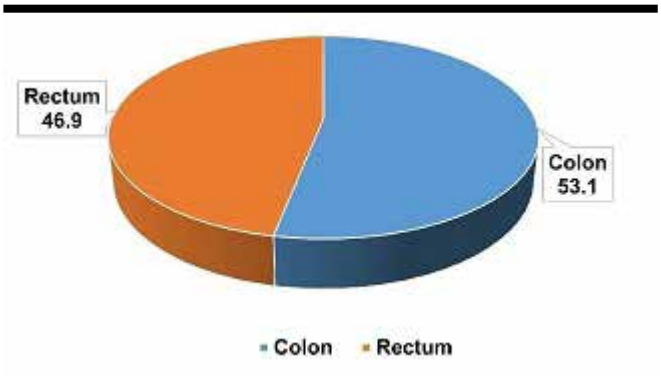



**Figure 1.** Location of colorectal cancer

***PP-117***

## *Contrasting seroprevalence of Hepatitis E in communities of different socio economic status of Lusaka Zambia*

**Mutinta Muchimba[1], Annie Kanunga[1], Paul Kelly[2]**

*[1]Tropgan, University of Zambia School of Medicine, Lusaka, Zambia*
*[2]Queen Mary University of London, London, UK*

***Background/Aims:*** Viral hepatitis is common in Africa but epidemiological data are limited. In Zambia, hepatitis B prevalence is 4-6%, hepatitis C less than 0.5%, but the epidemiology of hepatitis A virus (HAV) and hepatitis E virus (HEV) infections is unclear. Their relation to socioeconomic status(SES) is not known. We set out to determine the prevalence of hepatitis A, B and E in two adjacent, socioeconomically disparate residential areas of Lusaka urban.

***Materials and Methods:*** A cross-sectional study was conducted in adults (18 years and above) living in a high density (lower SES area) and a nearby medium density (middle class) area, using random sampling. These two areas lie adjacent to each other, but they differ markedly in their housing, social amenities, and environmental hygiene. Blood was collected for analysis of IgG antibodies to HAV and HEV and for hepatitis B surface antigen (HBsAg). A brief demographic and household survey was collected and data were analyzed by Fisher's exact test.

***Results:*** Among 97 participants, 59 were from the low SES area while 38 came from the middle class area. There were more female (64%) than male participants (36%), and median age was 33 years. The seroprevalence of hepatitis E was much

higher in the lower SES area (37%) compared to (8%) in the middle class area ($p$=0.001). The prevalences of HAV (98%) and HBV (5%) did not differ between the two communities.

***Conclusion:*** The seroprevalence of anti-HEV IgG antibodies was higher in the lower SES community than those from an adjacent middle class community, providing direct evidence that poor sanitation and environmental hygienic conditions put people at increased risk of hepatitis E infection.

***Keywords:*** Hepatitis E, Africa, seroepidemiology, Hepatitis A, Hepatitis B

---

***PP-118***

## *Up-to-date epidemiology of chronic Hepatitis C virus infection among Bulgarian patients: A single center experience*

**Christo Pentchev, Viktor Alargcof, Donika Krasteva, Mariya Petkova, Yana Boyanova, Aneta Ivanova, Asen Aleksiev, Krasimir Antonov**

*Department of Internal Medicine, Medical University Sofia School of Medicine, Sofia, Bulgaria*

***Background/Aims:*** Epidemiological data about chronic infection with Hepatitis C virus (HCV) are limited for Bulgaria. The aim of this study was to determine the Viremic Rate (VR) and the distribution of HCV genotypes in one center for diagnosis and treatment of chronic liver diseases. Geographic patterns of genotype distribution and associations of genotype with viral load, gender and age were investigated.

***Materials and Methods:*** Serum samples from 1731 individuals with a positive HCV Antibody Test, collected between 2016 and 2017, were analysed. HCV RNA levels were determined by HCV quantitative RNA real time polymerase chain reaction. Individuals with detectable HCV RNA further underwent HCV genotyping analysis using the Versant HCV Genotype Assay (LiPA) 2.0.

***Results:*** The mean age of all patients was 52.9±15.3 (17-87). Among those, 54.1% were men and 45.9% women. Most patients came from the south-western region of Bulgaria (21.7%). Viral load was proven in 1385 out of 1731 individuals (VR=80%). Genotype 1 (G1) was the predominant genotype (89.8%), followed by G3 (8.5%), G2 (0.9%), G4 (0.6%) and G5 (0.1%). Among individuals with G1, infection with subtype 1b was seen in 77.4% and with subtype 1a in 22.6%. Viral load was not found to be dependent on age or gender. Viral load was higher in patients with G1 compared to G3 (p=0.001). Finally, patients with G1b were significantly older than patients with G1a (p< 0.001) and G3 (p< 0.001).

***Conclusion:*** VR in the studied population (80%) appears to be higher than the VR reported for Central Europe (73.3%). In Bulgaria, the most prevalent genotype is G1 (89.8%). This is a higher rate in comparison to the observed G1 rate in Central Europe (70%). The second most prevalent genotype is G3 (8.5%), with less cases identified than in Central Europe (21%).

***Keywords:*** Chronic Hepatitis C***,*** genotypes, viral load

---

***PP-119***

## *Gastric adenocarcinoma epidemiology and survival in a Moroccan population: Review of 265 patients data*

**Nada Lahmidani[1], Maria Lahlali[1], Asmae Lamine[1], Hakima Abid[1], Mounia El Yousfi[1], Dafr Allah Benajah[1], Mohammed El Abkari[1], Sidi Adil Ibrahimi[1], Adil Najdi[2]**

*[1]Department of Gastroenterology, University Hospital Hassan Ii Fez Morocco, Morocco*
*[2]School of Medicine and Pharmacy, Tangier, Morocco*

***Background/Aims:*** Although its incidence has decreased over the last 20 years, gastric adenocarcinoma remains frequent (9000 new cases per year). Its prognosis is still poor, with overall survival rates of 10 to 25% despite improvement in surgical and perioperative treatment. In Morocco, we do not have data on survival and predictors of mortality in our population, the present study aims at describing the epidemiological and clinicopathological features of gastric adenocarcinoma and the survival rate.

***Materials and Methods:*** We retrospectively review data files of 265 patients with histological diagnosis of gastric adenocarcinoma between January 2007 and June 2017.Survival was estimated by the Kaplan Meier method and prognostic factors using Cox model.

***Results:*** The mean age of our population was 54.48±15.53 with a sex ratio 1.01. Clinical symptomatology is dominated by gastralgia in two-thirds of the cases. Proximal localization accounted for 17.4%. According to histological classification, poorly differentiated adenocarcinoma was the most common histological type (51.7%). Metastatic or locally advanced tumors accounted for 92% of cases. Only 11% of patients received curative resection. The 5-year survival was 7%. Multivariate analysis revealed three prognostic factors: vascular invasion, advanced stage and differentiation.

***Conclusion:*** Overall cancer survival in our population does not exceed 7%, a rate that remains low compared to studies published in the occidental literature. Recommandations have to be elaborated to make a strategy for early diagnosis of gastric adenocarcinom to improve the survival rate.

***Keywords:*** Gastric, adenocarcinoma, survival, prognostic factors

---

***PP-120***

## *Endoscopic full thickness resection in the Midwest United States*

**Jayal Mehta[1], Nayab Ahsan[2], Mahnoor Inamullah[2], Siddartha Guru[3], Kamran Ayub[2]**

*[1]Franciscan Health*
*[2] Southwest Gastroenterology*
*[3]Spartan Health Sciences University, Saint Lucia*

***Background/Aims:*** Traditional endoscopic treatment of early gastrointestinal neoplasms, such as endoscopic mucosal resection or endoscopic submucosal dissection involves the resection of superficial layers, mucosa, and submucosa, of the wall. This may be sufficient in a large portion of indications; however, in some circumstances, full thickness resection is necessary. Some examples of such scenarios include adenomas with non-lifting sign and neoplasms that arise from deeper layers than the submucosae. Endoscopic full thickness resection (EFTR) is a novel, minimally invasive endoscopic procedure that allows for therapeutic resection of various lesions, including difficult to resect adenomatous polyps, treatment resistant residual polyps, and malignant lesions with severe submucosal fibrosis or small sub-epithelial lesions arising from deeper layers of bowel wall. The goal of our study was to analyze patient outcomes selected for EFTR from May 1, 2018 and April 1, 2019 for various indications.

***Materials and Methods:*** We report our series of patients that underwent EFTR at two acute care/general hospitals in the Chicagoland area, between May 1, 2018 and April 1, 2019.

***Results:*** The mean age of patients studied was 71 years, with 36% of patients being male. Indications for the procedure were largely noted to be treatment of residual polyp after prior failed attempts at resection using traditional endoscopic treatment (36%). Other indications included patient preference to avoid surgery (18%), initial presentation of polypoid area (9%), ulcerated polyp (9%), adenocarcinoma colon (9%), gastric cancer (9%), and gastrointestinal stromal tumor (9%). Site of resection ranged from stomach (18%), cecum (9%), appendiceal region (18%), ascending colon (27%), transverse colon (9%), sigmoid colon (9%), and rectum (9%) with the ascending colon being the primary site of resection at three cases. Out of the patients studied, size of lesion removed ranged from 1.3cm to 3cm. Given that EFTR is typically noted to resect up

to 25mm in diameter, the removal of 3cm lesion occurring in single case had successful outcome with complete resection of lesion. Specimen pathology ranged from colonic mucosa/submucosa (18%) to tubular adenoma (27%) to tubulovillous adenoma (9%) to adenocarcinoma (36%). In the 12 cases amenable to EFTR, successful resection was achieved in 10 of the cases, with failure defined as part or most of polyp left behind under the clip. Two patients had perforation due to failure of clip deployment, one was closed using endoscopy the other patient required surgery. Both patients could have required surgery if EFTR was not an option.

***Conclusion:*** EFTR appears to be relatively safe and effective in this two center study.

***Keywords:*** EFTR, endoscopic full thickness resection

---

***PP-121***

## *Prognostic impact of alpha fetoprotein at diagnosis on overall survival of single small hepatocellular carcinomas*

**Nada Lahmidani, Fatima Zahra Hamdoun, Maria Lahlali, Asmae Lamine, Hakima Abid, Mounia El Yousfi, Dafr Allah Benajah, Mohammed El Abkari, Sidi Adil Ibrahimi**

*Department of Gastroenterology, University Hospital Hassan Ii, Morocco*

***Background/Aims:*** Alpha-fetoprotein AFP is a serum tumor marker used in the past for surveillance and screening of hepatocellular carcinoma (HCC) in patients with cirrhosis. Its prognostic value is still debated in the literature. Our aim was to evaluate the prognostic impact of the AFP rate at diagnosis on the overall survival of patients with a small HCC (<3 cm).

***Materials and Methods:*** We retro and prospectively analyzed the data of 122 patients diagnosed with HCC between 2010 and 2018.The patients were divided into 2 groups: group I with negative AFP≤10 ng/ml and group II with AFp>10 ng/ml. We considered significant p value<0.05. Patient survival was assessed using to the Kaplan-Meier method.

***Results:*** Among the 122 patients diagnosed with HCC during the study period, 49 patients had small HCC at diagnosis, including 40,8% (N 20) patients with AFP negative (group I) and 59,18% (N 29) with AFp>10 ng/ml (group II). Both groups of patients were comparable for age and OMS status (0 or 1). Patient survival, was assessed by the Kaplan-Meier method, the survival at 5 years was 35.7% in group 1 vs 12.3% in group 2. The AFP level was identified as an independent prognostic factor on 5-year survival.

***Conclusion:*** Improvement of HCC survival, related to the discovery ofearlier stages encourages stronger screening. An elevation of AFP above 10 ng/mL in a patient with a small HCC (<3cm) has an independent prognostic value and should be considered in the therapeutic strategy.

***Keywords:*** Small hepatocellular carcinoma, alpha-fetoprotein, survival, prognostic factors

---

***PP-122***

## *Predictive factors of progression of hepatocellular carninoma at diagnosis*

**Nada Lahmidani, Fatima Zahra Hamdoun, Maria Lahlali, Asmae Lamine, Hakima Abid, Mounia El Yousfi, Dafr Allah Benajah, Mohammed El Abkari, Sidi Adil Ibrahimi**

*Department of Gastroenterology, University Hospital Hassan Ii, Morocco*

***Background/Aims:*** The prognosis of hepatocellular carcinoma (HCC) on cirrhosis is generally poor and varies according to the hepatocellular function and the stage at which the tumor is diagnosed. Progression is unpredictable. The objective of our study is to determine the predictive factors of progression at the time of diagnosis of HCC

***Materials and Methods:*** We analyzed data of patients with HCC on liver cirrhosis included between January 2010 and July 2018. Multivariate analysis was performed with a binary logistic regression model to identify prognostic factors associated with progression.

***Results:*** We reviewed 110 files of patients with HCC on liver cirrhosis. The average age was 62 +/-14.54 years old with a sex ratio F/M=1.14. The etiology of cirrhosis was viral B and C in 69.6%. The Childs score was ≥ B8 in 17% of cases. The level of alpha fetoprotein was positive in 66.39%.The extension assessment revealed metastases in 19% of our patients. Among 110 patients, only 25,4% received curative treatment while 10% were beyond any therapeutic resource. The evolution was marked by the progression at the first year in 63% of cases. Tumor progression was correlated to PS status (p=0.0001), advanced child (p=0.002), AFP level>400 ng/ml (p=0.023) and presence of metastasis at the time diagnosis.

***Conclusion:*** Our study shows that HCC is an aggressive tumor. Progression factors at the time of diagnosis are represented by general patient status, advanced child, AFp>400 ng/ml, and the presence of metastases at the time of diagnosis.

***Keywords:*** Hepatocellular carcinoma, progression, diagnosis, alphafetoprotein

---

***PP-123***

## *Validation of non-invasive parameters for prediction of esophageal varices in 46,014 Egyptian patients with cirrhosis*

**Mohamed El Kassas[1], Wafaa Elakel[2], Mohamed Alboraie[3], Reem Ezzat[4], Sara Abdelhakam[5], Mohamed Hassany[6], Zainab Ali-eldin[7], Ahmed Sherief[5], Ayman Yosry[2], Magdy El-serafy[2], Manal Hamdy El-sayed[8], Imam Waked[9], Wahid Doss[2], Gamal Esmat[2]**

*[1]Department of Endemic Medicine, Helwan University School of Medicine, Cairo, Egypt*
*[2]Department of Endemic Medicine and Hepatology, Cairo University School of Medicine, Cairo, Egypt*
*[3]Department of Internal Medicine, Al-Azhar University, Cairo, Egypt*
*[4]Department of Internal Medicine, Assiut University, Assiut, Egypt*
*[5]Department of Tropical Medicine, Ain Shams University School of Medicine, Cairo, Egypt*
*[6]National Hepatology & Tropical Medicine Research Institute, Cairo, Egypt*
*[7]Department of Internal Medicine, Ain Shams University School of Medicine, Cairo, Egypt*
*[8]Department of Pediatrics, Division of Hematology-Oncology, Ain-Shams University School of Medicine, Cairo, Egypt*
*[9]National Liver Institute, Menofia, Egypt*

***Background/Aims:*** Non-invasive tests can be a potential alternative to endoscopic screening for esophageal varices in patients with liver cirrhosis. We aimed to validate non-invasive parameters, for prediction of presence and grade of varices.

***Materials and Methods:*** Patients underwent upper gastrointestinal endoscopy between September 2006 and August 2017 before receiving antiviral therapy were enrolled. Out of all evaluated patients; 46,014 had upper gastrointestinal endoscopy. Patients were divided into: group I (without varices), and group II (with varices), with further sub classification of the latter group intogroup Ia (without varices needing treatment) and group Ib (with varices needing treatment). We compared aspartate aminotransferase to platelet ratio index, Lok index, Bonacini score, liver stiffness, FIB-4 index, Baveno VI criteria and expanded Baveno VI criteria in the studied groups.

***Results:*** Lok index, Bonacini score, liver stiffness and FIB-4 index had areas under the receiver operating characteristic curve (AUCs) >0.6 (all p<0.01 for the null hypothesis that the AUC was 0.5) for determination of the presence/absence of varices,

with cutoff values of 0.80, 6.5, 21.9 kPa and 2.94, and sensitivities of 74%, 74%, 66% and 83%, respectively. For differentiation between high-risk varices needing treatment and low-risk varices, they were unreliable as their AUCs did not exceed 0.60. The expanded Baveno VI criteria gave better performance in predicting the presence of varices compared to Baveno VI criteria being able to spare more endoscopies (81%*versus*63%). Both were unable to predict high-risk varices needing treatment.

***Conclusion:*** The tested non-invasive methods can predict the presence of varices but cannot determine variceal grade.

***Keywords:*** Esophageal varices, Hepatitis C virus, cirrhosis, non-invasive parameters

---

***PP-124***

## *Determination result of colonic Lactobacillius on the Helicobacter pylori infection*

**Amarjargal Batdelger[1], Bira Namdag[2]**

*[1]Third State Central Hospital, Mongolia*
*[2]Mongolian National University of Medical Sciences, Mongolia*

***Background/Aims:*** *Lactobacillus* convert tryptophan to indole-3-aldehyde. Indole and I3A are agonists for the aryl hydrocarbon receptor, a transcription factor regulates interleukin-22 expression, increases Th17-cell activity, and helps maintain intraepithelial lymphocytes. The Maastricht guidelines suggest the use of antibiotics in addition to a PPI as a first line therapy in the eradication of *H.pylori*. However, the use of antibiotics may disrupt the colonic *Lactobacillus* and result in a series of adverse effects.

***Materials and Methods:*** A cross sectional study of analytic study. The control group consists of 80 relatively healthy participants. A quantitative method was used to analyze *Lactobacillus*, and the link between dairy consumption and the CFU of *Lactobacillus* was investigated. The case group consists of 80 dyspeptic patients with *H.pylori* positive. The first group (40 patients) received Clarithromycin based triple treatment and the second group (40 patients) received Bismuth based quadruple treatment for 10 days according to guideline of Maastricht. Stool samples were collected 2 times, the first before starting treatment and after finishing treatment to analyze *Lactobacillus*.

***Results:*** The *Lactobacillus* were $1443\times10^4$/CFU in the control group and $1213.7\times10^4$/CFU in the case group respectively ($p>0.05$). The *Lactobacillus* were $1330\times10^{4/}$CFU in the group that consumed 0-50 ml servings of dairy each time and $3229\times10^4$/CFU in the group that consumed >300 ml servings of dairy ($p<0.001$). In the both treatment group the *Lactobacillus* after treatment decreased to 697.7×104/CFU and 817.3×104/CFU respectively ($p<0.001$).

***Conclusion:*** 1. The *Lactobacillus* was positively associated with the amount of dairy consumption and types of dairy products in the healthy control group.
2. Our study shows no statistically significant differences in the colony forming units of *Lactobacillus* between the healthy control group and the case groups.
3. The CFU of Lactobacillus in fecal was decreased after both KBTT and BBQ treatments

***Keywords:*** *Lactobacillus, Helicobacter pylori*, clarithromycin based triple treatment, bismuth based quadruple treatment

---

***PP-125***

## *Non-invasive test for estimation of liver fibrosis*

**Khishgee Duinkherjav, Badamsuren Dorjgotov**

*The Third Central Hospital*

***Background/Aims:*** In 2015 the digestive disorders were the second leading cause of morbidity among Mongolian population. The observed mortality from cancer in 2013 was 23.4% including liver cancer which is the first most common cause of cancer death. Furthermore, the digestive disease related death accounts for 4.7% of all mortality. Recently many noninvasive markers for assessing liver fibrosis have been developed, and they are frequently used in clinical practice. FIB4 index had a predictive value to confirm the existence of significant fibrosis with a specificity of 74% and a sensitivity of 70% and APRI score had a sensitivity of 89% and a specificity of 75%.

***Materials and Methods:*** Cross sectional study was carried out. A total of 120 patients were enrolled in this study including 40 healthy individuals, 40 patients with chronic viral liver disease and 40 patients with alcoholic liver disease. Complete blood count (PLT), biochemistry (AST, ALT), abdominal ultrasonography were performed. APRI, FIB-4 scores were calculated and compared with the results of the laboratory tests.

***Results:*** A total of 120 patients were enrolled in this study; 40% of patients were males. Their mean age was 43.43±10.93 years. Liver fibrosis stages that are determined by APRI score: FO-1 mild fibrosis accounts for 54.3%, F2-3 moderate fibrosis 40.6%, F4-cirrhosis 11.5%; by FIB4 score: 62.8% was in F0-1, 20.3% was in F2-3, 11.5% was in F4 stage among alcoholic liver disease group. In viral disease group liver fibrosis stages that were evaluated by APRI score were 36.2%-F0-1 mild fibrosis, 32.4%-F2-3 moderate fibrosis, 31.4%-F4 severe fibrosis. Statistically significant difference were observed between alcoholic liver disease and viral liver disease groups in liver fibrosis stages that was determined with APRI score ($p<0.05$).In the abdominal ultrasonography increased echogenicity in alcohol group 32.5%, in virus group 52,5%, hepatomegaly in alcohol group 43.6%, vena portae dilated in alcohol group 8.3%, in virus group 10.6%, splenomegaly in alcohol group 14.1%, in virus group 20.1%, splenic vein dilated on alcohol group 20.3%, in virus group 14.75%. Alcohol and viral hepatitis abdominal ultrasonography is a statistically significant difference. In the present study, we found a statistically significant negative correlation between FIB4 score and platelet count, moderate negative correlation between FIB4 score, and albumin, total protein level, weak correlation between alkaline phosphatase, GGT, total bilirubin levels and FIB4 score ($p<0.05$). APRI correlated significantly with AST and ALT levels, whereas platelet count, total protein albumin levels demonstrated moderate negative correlation with APRI scores ($p<0.05$).

***Conclusion:*** 1. The APRI F2-3, the FIB4 F0-1 and F4 scores showed high sensitivity for the diagnosis of alcohol related liver fibrosis. The FIB4 F2-3, F4 score showed high sensitivity for the diagnosis of virus related liver fibrosis. These measures also demonstrated significant correlation with the stage of liver fibrosis in patients with viral hepatitis. 2. For non-invasive diagnosis of liver fibrosis F2-3, using FIB4 was related to necroinflammation, F4 was related with necroinflammation, cholestasis, hypersplenism, liver failure syndromes.

***Keywords:*** Liver fibrosis, non invasive test, liver fibrosis coagulapthy

---

***PP-126***

## *Gastroesophageal reflux have an influence on bleeding from esophageal varices*

**Khishgee Duinkhejav, Enkh-ulzii Mendbayar, Enkh-ulzii Mendbayar, Tseveendari Otgon**

*The Third Central Hospital*

***Background/Aims:*** Main reason for liver cirrhosis mortality is acute esophageal varices bleeding. Liver cirrhosis mortality risk increase from decompensated liver cirrhosis with Child Pugh-C, encephalopathy, ascites. Bleeding from esophageal varices is only 5–11% of all gastrointestinal bleeding and in the U.S. approximately 30% of patients with compensated cirrhosis have esophageal varices when first diagnosed. Mucosal breaks induced by gastroesophageal reflux of gastric contents were more frequently found on the right anterior wall of the lower esophagus. Bleeding from esophageal varices may be also derived from gastroesophageal reflux. The circumferential location of the ruptured esophageal varices was evaluated to elucidate the relationship between gastroesophageal reflux and variceal rupture.

***Materials and Methods:*** Between January 2015 and January 2017 total 79 inpatients who were examined at the department GI of 3rd Central Hospital were enrolled in this study retrospectively. Locations of bleeding spots and nonbleeding red color

signs of esophageal varices were retrospectively evaluated by endoscopic photographs, and the relationship between the location of red color signs and the risk of bleeding was evaluated. Other possible predictors for bleeding were also investigated by multivariate regression analysis.

***Results:*** 49 (68.4%) who had primary bleeding from esophageal varices and 25(31.6%) patients without evidence of bleeding with positive red color signs on varices were enrolled in this study. Red color signs were frequently found in the right posterior wall of the lower esophagus. However, bleeding spots of esophageal varices were more frequently seen in the right anterior side (59.3%) than in others. The positive predictor for bleeding from esophageal varices was the presence of red color sign in the right anterior wall of the esophagus, and the administration of proton pomp inhibitor was the negative predictor.

***Conclusion:*** Gastroesophageal acid reflex may be a risk factor of bleeding from esophageal varices. Attention should be paid to the circumferential location of red color signs in endoscopic screening of patients with esophageal varices to predict future bleeding.

***Keywords:*** GI bleeding, GERD, reflux disease

---

***PP-127***

## *Effect of educational virtual reality videos on improving bowel preparation quality and satisfaction of outpatients undergoing colonoscopy*

**Yi Zhao[1], Feng Xie[2], Xiaoyin Bai[1], Aiming Yang[1], Dong Wu[1]**

*[1]Department of Gastroenterology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, China*
*[2]Department of Health Research Methods, Evidence and Impact, Mcmaster University, Canada*

***Background/Aims:*** Colonoscopy is the reference method in screening and diagnosis of colorectal neoplasm, but its efficacy is closely related to the quality of bowel preparation. Poor patient compliance is a major risk factor for inadequate bowel preparation likely due to poor patient education. Such an education is usually provided via either oral or written instructions by clinicians. However, multiple education methods, like smartphone applications, have been proved useful in aiding patients through bowel preparation. Also, it was reported that a large proportion of patients feel anxious before colonoscopy. Virtual reality is a novel method to educate patients and provides them with an immersive experience. Theoretically, it can help patients better prepared for bowel preparation and colonoscopy. However, no prospective studies have assessed the role of this novel technology in patient education before colonoscopy. We hypothesize that VR videos can improve bowel preparation quality and reduce pre-procedure anxiety.

***Materials and Methods:*** The trial is a prospective, randomized, single-blinded, single-center trial. Outpatients who were scheduled to undergo conscious colonoscopy for screening or diagnostic purposes for the first time will be randomized to receive either conventional patient education or the conventional methods plus VR videos. Split-dose purgatives are adopted in bowel preparation. VR Videos will confront patients with a simulated operation room and give instructions on bowel preparation step by step, emphasize on points for attention before and after the procedure, give brief introductions to the procedures of colonoscopy and a to-do list after a therapeutic procedure (e.g., polypectomy). The primary endpoint is the quality of bowel preparation, measured by the Boston bowel preparation score (BBPS). Secondary endpoints include polyp detection rate (PDR), patient compliance to complete bowel cleansing, pre-procedure anxiety (measured by sleep quality), overall satisfaction and willingness for the next colonoscopy. The trial was registered with http://Clinicaltrials.gov (#NCT03667911).

***Results:*** Between September 2018 and May 2019, 104 patients in the VR group and 115 patients in the control group underwent conscious colonoscopic examinations. There existed no difference in sex ratio, age, body mass index, education level and income status of patients in these 2 groups. The BBPS of VR group was significantly higher than that of the control group (8.44±0.91 vs. 7.81±1.10, $p<0.001$), and the difference is significant both in ascending and descending colon. Patient compliance

and PDR were also both higher in VR group (Patient compliance: 71.1% vs. 43.6%, p<0.001; PDR: 40.4% vs. 25.2%, p=0.017). Patients in VR group were more satisfied with the procedure (8.92±1.54 vs. 8.08±2.11, p=0.001). Though without statistical significance, these patients slept well, which meant that they felt less anxious before the procedure (7.79±2.05 vs. 7.16±2.74, p=0.054) and they were more willing to accept another colonoscopy if necessary (8.69±2.55 vs. 8.24±2.34, p=0.174).

***Conclusion:*** Educational VR video can considerably enhance compliance and increase bowel preparation quality in patients receiving split-dose purgative. And it will also improve patients' overall satisfaction and to some extent, alleviate pre-procedure anxiety by simulating actual environment of conscious colonoscopy.

***Keywords:*** Colonoscopy, bowel preparation, patient education, virtual reality

***Table 1.*** Baseline characteristics of patients in control and VR video group

| | Control | VR video | P |
|---|---|---|---|
| age | 50.22±12.44 | 52.29±11.49 | 0.204 |
| sex | | | 0.168 |
| male | 49 | 54 | |
| Female | 66 | 50 | |
| BMI | 23.44±3.40 | 24.00±3.48 | 0.233 |
| Education level | | | 0.355 |
| Primary school | 6 | 7 | |
| Junior school | 13 | 16 | |
| High school | 18 | 23 | |
| College | 58 | 47 | |
| Graduate | 19 | 10 | |
| Income Status | | | 0.686 |
| ≤2 | 20 | 20 | |
| 2~6 | 28 | 31 | |
| 6~20 | 35 | 28 | |
| ≥20 | 25 | 18 | |

***Table 2.*** Primary and secondary endpoint analysis

| | Control | VR video | P |
|---|---|---|---|
| Boston score | 7.81±1.10 | 8.44±0.91 | <0.001 |
| Ascending | 2.24±0.66 | 2.59±0.60 | <0.001 |
| Transverse | 2.92±0.60 | 2.96±0.19 | 0.241 |
| Descending | 2.65±0.51 | 2.90±0.30 | <0.001 |
| Polyps Detection | 29(25.2%) | 42(40.4%) | 0.017 |
| Compliance | 48(43.6%) | 69(71.1%) | <0.001 |
| Overall satisfaction | 8.08±2.11 | 8.92±1.54 | 0.001 |
| Sleep quality | 7.16±2.74 | 7.79±2.05 | 0.054 |
| Willingness | 8.24±2.34 | 8.69±2.55 | 0.174 |

***PP-128***

## *Submucosa cavernous hemangioma of the esophagus. The rare case of endoscopic diagnosis and treatment by the method of endoscopic dissection in the submucosal layer (ESD)*

**Aleksandr Kiosov[1], Vladislav Yakovenko[3], Aleksandr Denisenko[2]**

*[1]Zaporozhzhye State Medical University, University Clinic, Ukraine*
*[2]Zaporozhzhye Regional Hospital, Ukraine*
*[3]Medical Center, Oberig Universal Hospital, National Medical University Name O.O. Bogomolets, Kyiv, Ukraine*

***Background/Aims:*** The cavernous esophagus hemangioma is a rare, benign vascular neoplasm of the esophagus, which is asymptomatic and can be detected by chance during diagnostic video gastroscopy. The purpose of the work is to describe in a rare clinical observation a case of diagnosis and an integrated approach in choosing an endoscopic method of treating a submucosal benign vascular neoplasm of the esophagus (cavernous hemangioma).

***Materials and Methods:*** A 46-year-old patient was sent to the University Clinic ZSMU to conduct video esophagogastroduodenoscopy in order to examine and select the treatment method for the submucosal tumor of the upper third of the esophagus found in one of the city's clinics.

***Results:*** A comprehensive examination of the patient with a submucosal neoplasm of the upper third of the esophagus, including video esophagogastroscopy with high-resolution endoscopes (HD), endoscopic ultrasonography (EUS), and computer-aided tomography (CT) were performed. At the esophagoscopy in the upper third of the esophagus revealed submucosal tumor, bluish color, with a wide base length of 3 cm, height up to 2 cm, moving, soft-elastic consistency. When EUS revealed that the tumor is not associated with the muscular layer, has many small vessels. The structure of the neoplasm is hypoechoic, inhomogeneous due to the inclusion of calcifications. On CT scan, in the lumen of the upper third of the esophagus, a rounded formation measuring 20 *x 15 *x 30 mm, with clear and even contours, homogeneous structure with a single calcinate in the structure, was found. The patient underwent endoscopic surgery – removed tumor of the endoscopic dissection in the submucosal layer (ESD)

***Conclusion:*** Cavernous esophagus hemangioma is a rare vascular submucosal neoplasm of the esophagus, which is usually asymptomatic, but has a great potential for complications such as bleeding, which is sometimes fatal. Timely diagnosis and minimally invasive endoscopic treatment methods are the prevention of complications and the treatment of choice for the treatment of esophageal submucous tumors.

***Key words:*** Cavernous esophagus hemangioma, endoscopic ultrasonography, endoscopic submucosal dissection

https://youtu.be/Jnx1tMKeydA link to the video

---

***PP-129***

## *Late-onset microsatellite-instable colonic cancer of a housewife in a Li-Fraumeni syndrome family whose father and son died young from brain cancer*

**Kenji Sasaki**

*Midtown Medicare Clinic, Japan*

Li-Fraumeni syndrome (LFS) is an autosomal dominant cancer complex characterized by early-onset core tumors in multiple affected relatives and multiple neoplasms in individuals primarily caused by TP53 mutation. The syndrome strictly fulfilling the original criteria is designated the classic LFS, while Chompret proposed the others defining the syndrome embracing broader core malignancy spectrum with less strict age limit. Such cases have recently been reported as developed late-onset and more diversified tumors. An LFS family meeting the Chompret criteria is presented which will contribute to clarify the landscape of the syndrome. A 76-year-old Japanese housewife was colectomized for colorectal cancer (CRC) at 69, mastectomized for breast cancer (BC) at 53 and hysterectomized for myoma uteri at 39. Her father and son died at 47 and at 13 of meningioma and of large cell/anaplastic medulloblastoma (LCA-MB), respectively, satisfying the 2009 Chompret criteria. Given LFS inheritance, she is the obligate heterozygote who inherited the malignancy-predisposing gene from her father, transferred it to her son and developed not only possibly premenopausal BC but CRC considered caused by the same LFS-specific gene as these tumors. Her CRC and family history were not contradictory to the Revised Bethesda Guidelines for Lynch syndrome (LS). It was an ulcerating tumor of the ascending colon mainly composed of poorly differentiated adenocarcinoma invading the muscularis propria with numerous lymphocyte infiltration and subserosal Crohn's-like lymphocytic reaction, suggesting high microsatellite instability. Though immunohistochemistry showed expression of MSH2 and MSH6 but none of MLH1 or PMS2 in the lesion, no germline alterations were detected in the latter genes, excluding the possibility

of LS. Few cancer cells were weakly stained with p53 and pathogenic mutations were not identified in exons 2 – 11 and the intronic flanking regions of TP53 no more than 80% of even the classic cases are proven to carry. Her son's rapidly aggravating tumor with LCA histology suggests TP53-mutant SHH-activated MB known to complicate LFS, which further warrants the diagnosis of the syndrome. Mutations will be examined in the non-coding regions of TP53 and in the candidate genes putatively responsible for LFS. This case shows that CRC should be included in the LFS malignancy spectrum and that not only early-but late-onset tumors should be strictly surveyed in the cancer family.

***Keywords:*** Li-Fraumeni syndrome, colorectal cancer, obligate heterozygote

---

***PP-130***

## *Evaluation of liver fibrosis after treating patients with chronic Hepatitis C with direct acting antivirals*

**Anahita Sadeghi[1], Shahin Merat[1], Roya Amiri[2], Amir-houshang Sharifi[1], Hossein Poustchi[1]**

*[1]Digestive Disease Research Institute, Tehran University of Medical Sciences, Tehran, Iran*
*[2]Department of Internal Medicine, Tehran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** After successful treatment of hepatitis C virus (HCV) infection with Direct-acting antivirals (DAAs) as a highly effective treatment, the stage of liver fibrosis decreases by time even in cirrhotic patient. We aimed to assess changes in liver fibrosis using transient elastography (TE) before and 1 year after DAA therapy in patients with HCV cirrhosis who came to hepatitis C clinic of Shariati hospital affiliated to Tehran University of Medical Sciences during 2016 to 2017.

***Materials and Methods:*** In this observational cohort all patients who had cirrhosis due to chronic HCV and were treated with sofosbuvir + daclatasvir (Sovodak, Rojan Pharma, Iran) who had achieved SVR and performed FibroScan before and after treatment were enrolled. Transient elastography was performed (FibroScan, Echosense, France) before treatment and one year after end of treatment. The primary outcome was change in TE one year after end of treatment relative to baseline. Two years follow up was completed.

***Results:*** Of the 363 patients who received treatment 172 patent have completed the protocol, (96%) patients achieved virologic response-12 (SVR-12). Of these patients, 143 performed FibroScan before and after treatment, 111 were males (77.6%), mean age was 55.5.0±10.7 years, and mean body mass index was 26.5±4.8 kg/m$^2$. Mean baseline liver stiffness was 29.63±14.73 that was decreased to 24.25±24.94 kPa (p value=0.009) and Mean baseline liver steatosis was 240.11±45.821 that was decreased to 241.63±52.75 dB/m (P value:0.735).

***Conclusion:*** Successful HCV eradication in patient with liver fibrosis results in significant decline of liver stiffness.

***Keywords:*** Hepatitis C virus, direct acting antivirals, FibroScan

---

***PP-131***

## *Infiliximab in Crohn disease treatment – results from Serbian referral center*

**Srdjan Markovic, Ana Kalaba, Marijana Jankovic, Dusan Zaric, Slobodan Sreckovic, Petar Svorcan**

*Clinical Hospital Center Zvezdara, Belgrade*

***Background/Aims:*** Infliximab (IFX) have changed the natural history of inflammatory bowel diseases (IBD). In Serbia, first IFX biosimilar (CTP13) was introduced in November 2016. In order to maintain remission, adequate serum levels are required. We aimed to compare the long term efficacy, safety and immunogenicity, and pharmacokinetics after one year treatment with IFX or CTP13 in patients with Crohn's disease.

***Materials and Methods:*** This was an observational cohort study of 1 year of followup. A cohort (retrospective) constituted by patients with IBD who had a treatment with original Infliximab (Remicade®) in the period of 2015–2016 and another cohort (prospective) constituted by patients who started CTP13 treatment (Remsima®) in the period from November 2016. We systematically documented reasons for discontinuation, trough levels (TL), and antidrug antibodies (ADA) to infliximab (ADAs) at week 14 and colonoscopy finding at week 52. Clinical and biochemical disease activity (HBI, SCCAI, CRP) and adverse events were registered.

***Results:*** 90 patients with Crohn's disease was analyzed and finished one year treatment, 49 and 41 patients treated by originator and biosimilar, respectively. Groups did not differ regarding clinical and biochemical disease activity. Endoscopic remission at week 52 was achieved in 31 (63.26%) and 21 (51.21%) patients in originator and biosimilar group, respectively (p=0.174, OR 1.639, CI 95%, 0.2621.418). TLs at week 14 were slightly higher in originator group, 2.82199, compared with biosimilar group 1.788 (ANOVA, p=0.106). ADA was detected in 4/49 (8.16%) and 3/41 (7.3%) patients on Remicade, and CTP13 respectively. We had one tuberculosis on Remicade treatment, and one death in CTP13 treatment because of pulmonary embolism.

***Conclusion:*** These are the first published results regarding this issue in Serbian IBD population.Patient treated with originator IFX had higher TL, but efficacy, immunogenicity remain same for both IFX molecules.

***Keywords:*** Crohn disease, Infliximab, follow-up

---

***PP-132***

## *Colonic malakoplakia: A rare cause of chronic diarrhea*

**Tayyab Saeed Akhter, Tayyaba Ali, Javeria Khan, Mohammad Umar, Hammama-tul-bushra Khaar, Gul Nisar**

*Center For Liver and Digestive Diseases, Holyfamily Hospital Rawalpindi, Pakistan*

Malakoplakia is a rare granulomatous infectious disease first described in 1901 suggesting a condition with soft yellow friable plaque like structures. The disease is thought to be due to impaired phagolysosomal activity of the macrophages leading to accumulation of partially digested bacterias as "Michaelis-Gutmann Bodies". Colonic malakoplakia is a rare entity with approximately hundred cases reported in literature and can present as a variety of symptoms ranging from asymptomatic incidental findings to colonic adenocarcinoma. We present a case of 15 year old boy who had chronic diarrhea since the age of 1 year. Except for short height for age and pallor his physical examination was normal. His hemoglobin was 5.3 g/dL, MCV 68, serum albumin 2.8 g/dL, vitamin D 6 ng/ml, ESR 103, CRP 26.6 mg/dl and stool for calprotectin >1000 ug/g. His Anti-Tissue Transglutaminase antibodies were also raised although the upper GI endoscopy with D2 biopsy was normal. His colonoscopy revealed moderate to severe patchy inflammation with small and large ulcers. Colonic biopsy revealed an infiltrate of large histiocytes with eosinophilic granular cytoplasm located in the lamina propria and containing Michaelis-Gutmann bodies which were also evident on PAS stain. Patient was treated with trimethoprim-sulfamethoxazole along with bethanecol and ascorbic acid for one year and showed remarkable improvement. Malakoplakia mainly affects rectum, sigmoid and descending colon and colonoscopic findings may present as three different patterns including yellow plaque like sessile, polypoid or ulcerated lesions involving recto sigmoid region or luminal strictures and intestinal fistulas resembling chron's disease or diffuse colonic involvement more like ulcerative colitis. The treatment of Malakoplakia is long term use of antibiotics that can preferably concentrate in macrophages like trimethoprim-sulfamethoxazole, rifampicin or quinolones. An add on strategy is to use bethanecol or ascorbic acid, both of which can increase the cGMP in the macrophages which is thought to be reduced in Malakoplakia and is one of the contributing factor in incomplete bacterial killing.

***Keywords:*** Malakoplakia, colon, michaelis-gutmann bodies

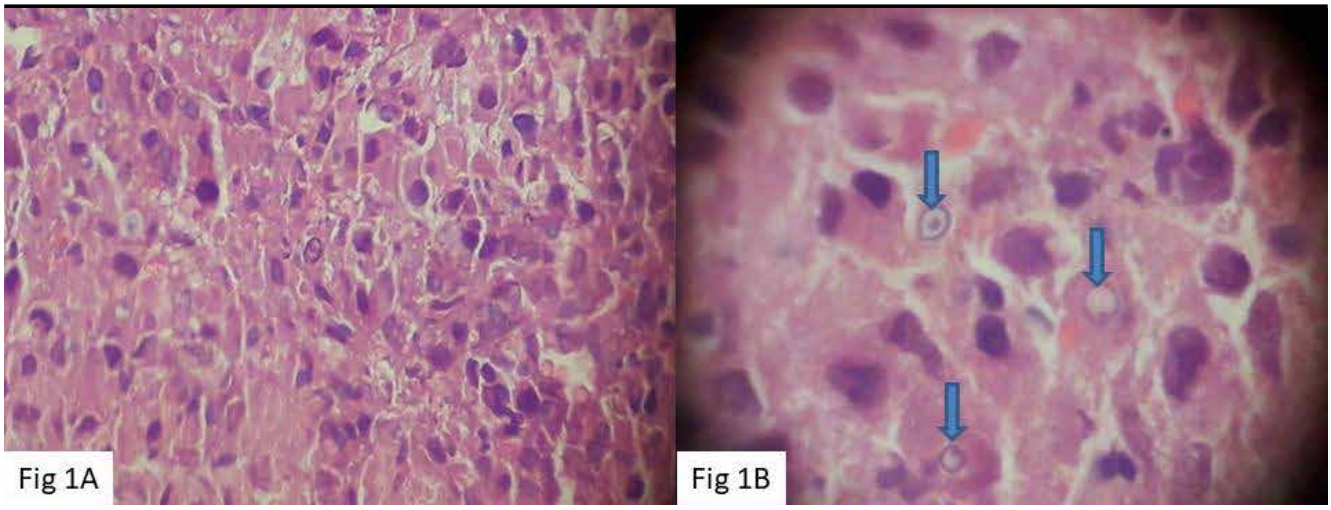



**Figure 1. a, b.** Malakoplakia: A-hemotoxylin-eosin stain showing the sheets of macrophages with eosinophilic granular cytoplasm, B-blue arrows show michealis -gutmann bodies (400X)

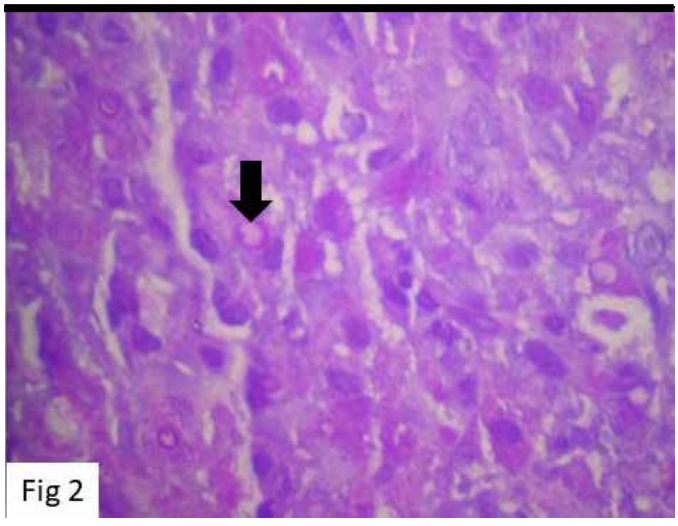



**Figure 2.** Michealis-Gutmann bodies, after PAS staining (400 X) (black arrow)

***PP-133***

## *Effect of lifestyle modification on proinflammation markers in non-alcoholic fatty liver disease*

**Galyna Fadieienko, Nataliia Chereliuk, Olena Kurinna**

***Background/Aims:*** Assessment of effect of active complex lifestyle modification on proinflammatory markers in patients with nonalcoholic fatty liver disease (NAFLD).

***Materials and Methods:*** There were 52 NAFLD patients enrolled to the study and randomized to group of general recommendations on lifestyle modification (Group I), and active complex lifestyle modification (Group II). Active complex lifestyle modification (ACLM) included structured program of hypocaloric diet, increase in physical activity with cognitive therapy for

24 weeks. Steatosis degree was assessed by ultrasound examination. Physical activity level and compliance to the lifestyle modification were measured during a cycle ergometer testing.Proinflammation markers included high sensitive C-reactive protein (hsCRP), interleukin-6 (IL-6) and-15 (IL-15) measurements.

***Results:*** An analysis of the effects of ACLM on proinflammatory markers showed that in the Group I hsCRP level tended to decrease by 25.00 [-2.63; 44.14]% (p>0,05). However, in the Group II patients who received ACLM had their hsCRP level decreased by 32.79 [19.05; 53.57]% (p<0.05). In the Group I IL-6 was decreased by 11.49 [-19.91; 24,69]% (p>0,05), but in the Group II – by 14,34 [-22,10; 22.28]% (p<0.05). IL-15 under the influence of treatment showed that after 24 weeks of observation, the content of IL-15 decreased insignificant: in the Group I – by 1.44 [-0.42; 3.22]% (p>0.05), and in the Group II at 2.47 [1.23; 7.25]% (p<0.05).

***Conclusion:*** Results shows that ACLM led to significant decrease in the concentration of proinflammatory cytokines as hsCRP, IL-6 and IL-15 (p<0.05) indicating the effect of ACLM on proinflammatory activation.

***Keywords:*** Non-alcoholic fatty liver disease, proinflammatory markers

---

***PP-134***

## *A case of olmesartan-induced enteropathy*

**Mohamed Zakarya [1], Aarthi Anand [2]**

*[1]The Stamford Hospital Columbia University Vagelos College of Physicians and Surgeons, Stamford, CT, USA*
*[2]Optimus Health Care, Stamford, CT, USA*

***Introduction***: Olmesartan is an angiotensin receptor antagonist used to treat hypertension. In 2013, the United States Food and Drug Administration placed a warning on this medication after a case series by Rubio-Tapia et al at Mayo Clinic discussed a life-threatening sprue-like enteropathy caused by the medication. We present a case of a 69-year-old man diagnosed with sprue-like enteropathy associated with olmesartan.

***Case:*** A 69-year-old man with a history of hypertension presented with a 1-month history of watery, non-bloody diarrhea not associated with bloating or abdominal pain; but associated with >30lb weight loss. Outpatient stool studies had been unremarkable and he had no improvement with anti-diarrheal medications or diet modification. His vital signs and physical examination were unremarkable. Celiac serologies were negative. EGD and colonoscopy were performed with small bowel biopsy revealing pathology consistent with sprue-like enteropathy with villous atrophy and increased intraepithelial lymphocytes. Pathology of random colon biopsies was unremarkable. Olmesartan was held due to acute kidney injury and within days of holding olmesartan he experienced a decrease in the frequency and volume of watery stools. Once kidney injury resolved, olmesartan was carefully reintroduced. He was monitored for a few days with significant worsening of his symptoms. As a result, olmesartan was discontinued. At follow-up three months later, he had complete resolution of diarrhea.

***Conclusion***: This case illustrates the life-threatening adverse effect associated with olmesartan. The workup of olmesartan-induced enteropathy in patients with chronic diarrhea requires negative stool studies, negative celiac serologies, no response to a gluten-free diet, EGD with biopsies showing intraepithelial lymphocytosis and lymphocytic proliferation of the lamina propria or villous atrophy, and improvement of symptoms after olmesartan discontinuation. Recurrence of symptoms with reinstitution of the medication confirms the diagnosis. With increasing rates of hypertension worldwide, patients need to be aware of this potentially life threatening drug effect.

***Keywords:*** Olmesartan, hypertension, enteropathy

***PP-135***

## *A case of successfully treated peristomal pyoderma gangrenosum*

**Mohamed Zakarya[1], Sarah Kahn[1], Elgida Volpicelli[2]**

*[1]The Stamford Hospital Columbia University Vagelos College of Physicians and Surgeons, Stamford, CT, USA*
*[2]Department of Pathology, The Stamford Hospital Columbia University Vagelos College of Physicians and Surgeons, Stamford, CT, USA*

***Introduction***: Pyoderma gangrenosum (PG) is an uncommon neutrophilic ulcerative dermatosis of skin. The condition is rare with an incidence of 3 to 10 cases per million people per year. Peristomal pyoderma gangrenosum (PPG) is an extra-colonic manifestation of Crohn's disease. There is no universally accepted treatment for PG. Therefore, treatment can be challenging. We present a patient who developed PPG that was successfully treated with adalimumab.

***Case***: A 67-year-old man with history of Crohn's disease status post ileocolectomy and ileostomy, presented with nausea and abdominal pain. His vital signs were unremarkable. On physical exam, was noted to have an ostomy bag in the right lower quadrant and an erythematous fleshy skin lesion with ulcerations medial to the stoma, measured approximately 1.5 inches x 1 inch. Computed Tomography scan of the abdomen and pelvis showed small bowel obstruction, and he was successfully treated with nasogastric tube decompression. Biopsy of the peristomal lesion was obtained, and pathology revealed interstitial and perivascular acute inflammation with neutrophil infiltration with negative stains for microorganisms supporting the diagnosis of PPG. He was initially started on topical and systemic steroids; however, he failed to respond. On follow up, he was started on adalimumab with a good response within a few months and a complete healing of the ulcer after 6 months of treatment.

***Conclusion***: In this case, the effectiveness of the tumor necrosis factor (TNF) inhibitor adalimumab in the treatment of PG is demonstrated. Tumor necrosis factor is a proinflammatory cytokine that is produced by macrophages, lymphocytes, and neutrophils. It is known to induce other proinflammatory cytokines and promote leukocyte migration into sites of inflammation. Increased levels of TNF are found in patients with Crohn's disease, and are associated with PG. Inhibition of TNF-induced inflammation could effectively treat PG, as demonstrated in this case.

***Keywords:*** Peristomal-pyoderma-gangrenosum, Crohns, adalimumab

---

***PP-136***

## *Effect of probiotics in children with infantile eczema: A double-blind randomized control trial*

**Tamara Sabbi, Tamara Sabbi**

*ASL RMG Palestrina, Italy*

***Background/Aims:*** Probiotics are used in the treatment of several conditions: functional abdominal pain, infantile colic, celiac disease, irritable bowel syndrome, lactose intollerance, food allergy. Hp infection. asthma, atopic dermatitis and infantile eczema. To determine whether oral administration of the probiotic Lactobacillus GG under randomized double-blinded, placebo controlled conditions would improve syntoms of infantile eczema in children.

***Materials and Methods:*** 41 children with infantile eczema were given Lactobacillus GG or placebo for 6 weeks and entered follow up for 4 weeks. Children entered a randomized double-blind placebo-controlled trial.

***Results:*** LGG but not placebo caused a significant reduction of both frequecy ($p<.01$) and severity ($p<.01$) of eczema. These differeces still were significant at the end of follow up ($p<.02$ and $P<001$), respectively).

***Conclusion:*** Lactobacillus GG was superior to placebo in the treatment of eczema in chilcren. the intestinal microbial flora may contribute to the pathogenesis of allergic disease, LGG significatly reduces the frequency and severity of infantile eczema and maybe because improves the gut function and reduce inflammatory response.

***Keywords:*** Probiotic, children, microbial flora

---

***PP-137***

## *A rare cause of acute pancreatitis: Mirtazapine*

**Kadir Gisi, Gülsüm Akkuş, Murat İspiroglu, Bülent Kantarçeken**

*Department of Gastroenterology, Kahramanmaraş Sütçü İmam University School of Medicine, Kahramanmaraş, Turkey*

***Introduction:*** Pancreatitis; An inflammatory condition of the pancreas characterized by abdominal pain and elevated levels of pancreatic enzymes in the blood. Although the pathogenesis of acute pancreatitis is not clearly understood; the most common etiology; genetic causes such as gallstones and alcohol, hypertriglyceridemia, drugs (azathioprine, pentamidine, valproic acid), hypercalcemia are involved. Mirtazapine is a tetracyclic antidepressant which provides serotonin and noradrenalin release by antagonizing alpha-1 adrenergic receptors used in the treatment of depression. Mirtazapine associated acute pancreatitis attacks are rare. We aimed to present a case of acute pancreatitis due to mirtazapine which is a rare cause in this article.

***Case***: A 26-year-old woman presented with abdominal pain and nausea and vomiting. Blood tests performed in the emergency department; Blood glucose: 147 mg/dl, BUN (Blood urea nitrogen): 7.2 mg/dl, Creatinin: 0.4 mg/dl, calcium: 8.28 mg/dl, aspartate aminotransferase (AST): 438 U/L alanine amino transferase (ALT): 182 U/L total of crystalline: 0.5 mg/dl of direct crystallization: 0.2 mg/dl of gamaglutamyl transferase (GGT): 117 U/L lactate dehydrogenase (LDH): 432 U/L alkaline phosphatase (ALP): 161 U/L, amylase: 1028 and lipase: 3123, CRP: 59 mg/L. White sphere: 23000//L, Hb: 14,8 g/dl, Platelet: 460000//L. On physical examination; Epigastric tenderness was present in the abdomen and other system examinations were normal. Blood pressure was 125/75 mg pulse: 75 beats/min fever: 37°C. She had a history of invitrofigilization and depression in her medical history. No alcohol use. She was hospitalized in the gastroenterology intensive care unit with a preliminary diagnosis of acute pancreatitis. Oral intake of the patient was discontinued; intravenous 4000 cc/day linger lactate solution was started. Abdominal ultrasonography showed no gallbladder stones. Magnetic resonance cholangiography was performed. No pathology was found for bile and biliary tract. Triglyceride and calcium values were normal. It was learned that the patient used mirtazapine 15 mg/day for 20 days when the anamnesis was deepened. On the day of follow-up, on the 2nd day of his hospitalization, abdominal tomography was performed due to the high level of CRP and necrosis due to exacerbation of abdominal pain. The pancreas was reported as necrosis-bearing areas that covered more than 50% of the non-enhancing pancreas, causing significant heterogeneity and contour erosion, particularly in the trunk section, and as common free fluid in the abdomen. There were no frequent etiological causes of acute pancreatitis and acute necrotizing pancreatitis due to mirtazapine use.

***Conclusion***: Acute pancreatitis; Pancreas is characterized by inflammation of the pancreas and elevated levels of pancreatic enzymes and abdominal pain in the clinic. Although its pathophysiology is not clearly understood, gallstones and alcohol play the most common role in etiology. More rarely, hypertriglyceridemia, drug-related and genetic factors are observed. Drug-associated acute pancreatitis is most commonly seen due to drugs such as angiotensin converting enzyme (ACE) inhibitors, statins and diuretics. In the scientific literature, more than 100 drugs have been reported to cause acute pancreatitis. In most studies, drug-induced acute pancreatitis is said to constitute 3-5% of all cases of acute pancreatitis. Among the mechanisms of drug-induced pancreatitis, immunological reactions can develop due to direct toxic effects, toxic metabolite accumulation, ischemia, intravascular thrombosis and increased viscosity of pancreas water. Mirtazapine is widely used as an antidepressant. Mirtazapine-associated acute pancreatitis occurs more frequently due to drug-induced triglyceride elevation or can be seen without affecting triglyceride levels. The common etiologic factors were thought to be related to the use of mirtazapine in patients with acute pancreatitis. As a result, drug use should be questioned in patients with acute pancreatitis due to increased drug use and should be kept in mind for etiological reasons.

***Keywords:*** Pancreatitis, mirtazapine

***PP-138***

## *Effect of phlebotomy on improvement of liver function and histology in patients with non-alcoholic fatty liver disease*

**Ahmad Hormati, Mohammadreza Ghadir, Seyed Saeid Sarkeshikian, Faezeh Alemi**

*Qom University of Medical Sciences, Iran*

***Background/Aims:*** Considering the potential role of liver iron overload in the pathogenesis of Non-alcoholic fatty liver disease (NAFLD), the current study aimed at investigating the efficacy of phlebotomy versus lifestyle modification alone in patients with NAFLD.

***Materials and Methods:*** This randomized, single-blind, clinical trial performed on 40 patients with NAFLD. Patients were randomly assigned into two intervention groups including 20 patients who underwent a six-month lifestyle modification, daily intake of 800 IU vitamin E. The other group received the same treatment in combination with two times phlebotomy each 400 mL in the months 0 and 5. Liver transaminases, hemoglobin and ferritin levels, and liver stiffness were measured using transient elastography (TE) before and after the intervention. Data were analyzed using Chi-square and paired t-test with SPSS version 18.

***Results:*** Of 20 patients in each group, 14 were male and 6 were female. Demographic characteristics had no significant difference between the two groups. The mean of liver stiffness in the control group before and after the intervention was 14.28±9.85 and 14.94±13.21 kPa, respectively; the difference between the means was not significant (p=0.598). The liver stiffness was 17.04±18.77 kPa in the intervention group before treatment, which reduced to 14.75±14.28 kPa after treatment; however, the difference between pre-and post-treatment values was statistically significant (p=0.017). Changes in liver enzymes were not significant between the two groups before and after treatment.

***Conclusion:*** Phlebotomy can effectively reduce liver stiffness in patients with NAFLD.

***Keywords:*** Phlebotomy, nonalcoholic fatty liver disease, nonalcoholic steatohepatitis, liver fibrosis

---

***PP-139***

## *Prevalence of ERCP complications and amylase sensitivity for predicting pancreatitis in ERCP patients*

**Seyed Saeid Sarkeshikian, Mohammadreza Ghadir, Ahmad Hormati, Faezeh Alemi, Abolfazl Iranikhah**

*Qom University of Medical Sciences, Iran*

***Background/Aims:*** Endoscopic Retrograde Cholangiopancreatography (ERCP) is a complex procedure that is widely used for diagnosis and treatment of biliary and pancreatic disease. With respect to its growing application, the present study aims to evaluate ERCP outcomes and complications.

***Materials and Methods:*** This cross-sectional study performed using the data from 824 patients who underwent ERCP during 2014-2017 in Qom Shahid Beheshti hospital. Data collected by a checklist and analyzed using SPSS V22.

***Results:*** Among 824 patients, 397 (48.18%) were male and 427 (51.82%) were female with a mean age of 47±6. The most common indications for ERCP were choledocholithiasis (78.28%) and cholestasis (20.27%) respectively. Total prevalence of complications was 15.66% and mortality rate was 0.72%. The most common complications were pancreatitis (9.59%) and bleeding (3.28%) respectively. A serum amylase level >160 could predict pancreatitis with sensitivity of 93.3% and specificity of 90.3%.

***Conclusion:*** ERCP-related complications are inevitable but can be controlled by early diagnosis and clinical experience. Severe complications and high risk patients may increase the mortality of the procedure.

***Keywords:*** ERCP, complication, endoscopy, pancreatitis

---

***PP-140***

## *Comparison of the effects of diltiazem gel with lidocaine gel on reducing pain and discomfort in patients undergoing rectosigmoidoscopy: A randomized double-blinded clinical trial*

**Mohammadreza Ghadir, Faezeh Alemi, Ahmad Hormati, Seyed Saeid Sarkeshikian, Abolfazl Iranikhah**

*Qom University of Medical Sciences, Iran*

***Background/Aims:*** The current study aimed at comparing the effects of diltiazem gel, an antispasmoic drug with local pain-reducing effects, with lidocaine gel in patients undergoing flexible rectosigmoidoscopy.

***Materials and Methods:*** This double-blinded, randomized, clinical trial was performed on 80 patients who were potential candidates for rectosigmoidoscopy. After obtaining the informed consent, the patients randomly assigned to one of the lidocaine gel (2 mL) or diltiazem gel (2 mL) group, 10 minutes prior to rectosigmoidoscopy. The level of pain in the patients during the procedure was measured using the visual analogue scale (VAS) and the results were recorded. The data were analyzed using paired samples t-test and independent t-test as well as analysis of covariance (ANOVA) with SPSS version 18. P-value<0.05 was considered the level of significance.

***Results:*** Of 80 patients, 35 (43.75%) were male and 45 (56.25%) female with a mean age of 51.45±15.21 years. The most frequent indications for rectosigmoidoscopy were abdominal pain (46.3%) and rectorrhagia (31.3%). The mean VAS score for pain reported by the patients in the lidocaine and diltiazem groups were 3.97±2.89 and 2.60±2.36, respectively. The VAS score for pain in the diltiazem group was significantly lower than of the lidocaine group (p=0.023).

***Conclusion:*** The application of local diltiazem gel around the anus, in spite of no side effects, can effectively reduce the pain and discomfort in patients during rectosigmoidoscopy.

***Keywords:*** Analgesia, diltiazem, lidocaine, proctosigmoidoscopy

---

***PP-141***

## *Effect of adding atorvastatin to standard anti H.pylori regimen: A randomized double blinded clinical trial*

**Mohammadreza Ghadir, Ahmad Hormati, Faezeh Alemi, Seyed Saeid Sarkeshikian, Abolfazl Iranikhah**

*Qom University of Medical Sciences, Iran*

***Background/Aims:*** Helicobacter pylori is one of the main causes of digestive diseases, which is difficult to treat and requires the administration of several antimicrobial agents. Considering the anti-inflammatory and antibacterial effect of atorvastatin, the present study aimed at adding this agent to a four-drug regimen in order to eradicate H. pylori.

***Materials and Methods:*** A total of 220 patients with H. pylori infection were included in the current randomized, controlled clinical trial. In the current study, 110 patients in the control group received a 14-day regimen of amoxicillin, clarithromycin,

bismuth, and esomeprazole, and 110 patients in the intervention group received 40 mg of atorvastatin daily plus the antibiotic regimen for 14 weeks. The treatment results were evaluated one month later using H. pylori stool antigen test. Data were collected using checklist and analyzed using Chi-square and the Fisher exact tests with SPSS version 18.

***Results:*** H. pylori eradication rate in the intervention and control groups were 78.18% and 65.45%, respectively (p=0.025), and there was a significant difference in terms of NUD between the groups (p=0.049), but there was no significant difference in age, gender, and body mass index between two groups (P<0.05).

***Conclusion:*** The present study results showed that adding atorvastatin to the four-drug regimen of omeprazole, clarithromycin, bismuth, and amoxicillin is effective in the eradication of H. pylori. Also, the addition of atorvastatin to H. pylori eradication therapy is more effective in patients with non-ulcer dyspepsia (NUD).

***Keywords:*** Atorvastatin, eradication, Helicobacter pylori, digestive diseases

---

***PP-142***

## *Investigating the relation of serum vitamin D level with the relapse of the disease in ulcerative colitis patients*

**Faezeh Alemi, Ahmad Hormati, Mohammadreza Ghadir, Seyed Saeid Sarkeshikian, Abolfazl Iranikhah**

*Qom University of Medical Sciences, Iran*

***Background/Aims:*** Inflammatory bowel disease (IBD), including ulcerative colitis (UC) is a growing disease which affects the quality of life of patients. Many environmental factors, including nutritional deficiencies may influence development of the disease. The present study aims to investigate the role of vitamin D level in relapse of UC.

***Materials and Methods:*** Fifty patients with inactive UC enrolled in this cross-sectional study and were followed for 6 months in roll of the frequency of the disease relapse. At the end of this period, serum vitamin D level was measured. Data were collected by a checklist and analyzed by independent samples T-test, Chi square and variance analysis in SPSS version 18.

***Results:*** Among 50 patients, 23 (46%) were male and 27 (54%) were female with a mean age of 35.24±10.07 and a mean duration of disease 15.14±6.67 months. The mean frequency of relapse was 1.34±1.89. The mean level of serum vitamin D was 22.30±13.45 ng/dL and it was significantly associated with the frequency of relapse with a P-value<0.001.

***Conclusion:*** Vitamin D deficiency is associated with an increased risk of relapse in patients with UC.

***Keywords:*** Inflammatory bowel diseases, ulcerative colitis, vitamin D deficiency, relapse

---

***PP-143***

## *Crohne's disease of esophagus*

**Elena Barkalova[1], Mariia Ovsepian[1], Igor Maev[1], Yury Kucheryavyy[1], Dmitry Andreev[1], Irina Timchenko[2], Anna Sviridova[2]**

*[1] Moscow State University of Medicine and Dentistry, Moscow, Russia*
*[2] Central Clinical Semashko Hospital, Moscow, Russia*

***Introduction:*** Involvement of the esophageal CD (ECD) is rare, constituting only 0.2% of cases. The diagnosis is difficult because of more often nonspecific endoscopic and histological features. That's why the diagnosis of the ECD poses a great

challenge to clinicians, endoscopists and pathologists. We report a case of a 51-year-old patient who underwent a long diagnostic and therapeutic way to ECD.

***Case:*** A 51-year-old patient presented with 1-month history of increasing dysphagia with vomiting after duodenum ulcer perforation with no previous complaints. Ambulatory upper endoscopy revealed distal erosive-ulcerative esophagitis, expressed stenosis impassable for an endoscope. Histology of the endoscopic biopsy revealed nonspecific expressed inflammation. The patient was directed for complex investigation in Central clinical hospital named after Semashko. Upper endoscopy with histological investigation (distal erosive-fibrinous esophagitis (Figure1) with nonspecific inflammation); roentgenography of esophagus (lower third stenosis of the esophagus), stomach and intestine (normal); high resolution manometry ***(***EGJ outflow obstruction due to Chicago Classification 3.0); colonoscopy, complex computer tomography, ultrasonic research of lymphatic nodes, laboratory tests – normal. No features for esophageal adenocarcinoma, Barrett's esophagus, eosinophilic esophagitis were received. At patient's admission, PPIs were empirically prescribed and soon there was positive clinical dynamics-no more dysphagia. It was proposed erosive reflux disease. After 3 months PPI therapy endoscopy showed no stenosis, but no significant mucosa response. We performed pH-impedance study off PPIs which had excluded gastroesophageal reflux disease. As a result, we supposed ECD and prescribed hormone and immunosuppressive therapy. Control upper endoscopy showed expressed positive dynamics (Figure 2). But histology was nonspecific again.

***Conclusion:*** Proximal gastrointestinal involvement of CD usually diagnosed after recognition of intestinal disease. In our case we suppose that previous duodenum ulcer perforation was a manifestation of CD with further esophageal lesion, but we didnt initially link these conditions. Esophageal CD inflammation was marked by erythema, erosions, deep ulcerations on endoscopy. Specific feature of CD on biopsy are granulomas, but they are often not detected, as it was in our case. Empiric hormone and immunosuppressive therapy that is used to treat CD was successful.

***Keywords:*** Esophagus, Crohn's disease (CD)

Figure 1.

Figure 2.

***PP-144***

## *Endoscopic videocapsule: Indications and results: Cheikh Zayd Hospital experience*

**El Moufid Houda[2], Bennani Meryem[1]**

*[1]Hospital Cheikh Zayd, Uiass, Morocco*
*[2]Service Hépato-gastro-entérologie, Hopital Cheikh Zayd, Uiass, Rabat, Morocco*

***Background/Aims:*** Since the use of EVC, we are able to visualize the mucosa of the small intestine with a minimally invasive technique, with very little complications. To evaluate the contribution of EVC in the etiological diagnosis of iron deficiency anemia. To appreciate its diagnostic profitability as well as its therapeutic impact.

***Materials and Methods:*** Monocentric retrospective study over a two-year period from January 2017 to May 2019. All patients who received VCE were included. Upper endoscopy/colonoscopy was performed beforehand in all patients. Indications were unexplained externalized digestive bleeding (n=15), iron deficiency anemia without externalized bleeding (n=29), suspicion of Crohns disease: (n=1), Peutz-jeghers surveillance (n=3), unexplained abdominal pain (n=2), unexplained diarrhea: (n=2). The VCE used was the PillCam SB3 type. A gastroenterologist specialist interpreted the results.

***Results:*** 52 patients were collected, there was a discreet female predominance (52%) with a sex ratio W/M at 1.1. the average age was 57.2 years. The lesions detected by VCE were dominated by angiodysplasias (n=14, 37%), including small bowel angiodysplasia (n=11.26%) and coecal angiodysplasia (n=3.8%) and stomach angiodysplasia: (n=1, 3%); followed by gutl tumor in 21% of cases (suspicion of GIST (n=7), of carcinomatous lesion (n=1), 2 cases of GIST and 1 case of pancreatic ectopia confirmed postoperatively), non specific microlitre (n=5, 13%), Crohns desease: (n=4, 11%), villous atrophy: (n=2.5%), small polyposis: Jeghers syndrome (n=2.5%), haploid polyp: (n=1, 3%), Meckels diverticulum: (n=1, 3%), lymphangectasia: (n=1, 3%). the examination was normal in 23% of cases (n=12). Failure of VCE progression due to gastroparesis in 2 cases.

***Conclusion:*** The diagnostic efficacy of VCE in our center for all indications combined was 73% and 70% in case of iron deficiency anemia which is comparable to the results reported internationally. However, data for other indications of EVC, especially in Crohns disease are still lacking. The VCE not only makes it possible to specify the digestive origin of iron deficiency anemia but can also contribute to its therapeutic management, whether medical, endoscopic or surgical

***Keywords:*** Video capsule endoscopy, gut, iron anemia

---

***PP-145***

## *Esophagitis due to darifenacin: First case*

**Kadir Gisi, Murat İspiroğlu, Bülent Kantarçeken**

*Department of Gastroenterology, Kahramanmaraş Sütçü İmam University, School of Medicine, Kahramanmaraş, Turkey*

***Introduction***: Many drugs have been reported to cause esophagitis or esophageal ulceration. The typical clinical manifestation of drug-induced esophagitis is retrosternal burning, dysphagia, and odynophagia that develop within hours or days. The most common cause is doxycycline, nonsteroidal antiinflammatory drugs, potassium chloride, such as drugs. We aimed to present a case of esophagitis due to the use of darifenacin due to the fact that it was not the first one and the first case.

***Case***: A 74-year-old female patient. The patient was hospitalized with a complaint of abdominal pain, nausea and vomiting and was hospitalized in another hospital. The patient was discharged with a proton pendant inhibitor. On physical examination, blood pressure was 170/80 and pulse was 98/minute. The overall condition was medium. She had hypertension and urinary incontinence. The patient was followed by oral stop with proton ponpa inhibitor and upper gastrointestinal endoscopy showed severe erosions accompanied by mucosal peels on the entire mucosa of the esophagus in the middle and distal, and widespread hyperemic appearance in the stomach. No active or old bleeding was found. No pathology was found to cause severe esophagitis. Therefore, it could be thought that there might be another factor in this patient. Three months before the antihypertensive and PPI treatment, darifenasin hydrobromide treatment was started due to urinary incontinence and the patient had been taking this medicine once a day for three months. He hasnt used any other antibiotics or any pain medication. When the anamnesis was deepened, it was learned that the patient had abdominal pain and nausea since the beginning of this medication, and he lost six kilograms of weight loss during this period. The patient was considered to have darifenasin-induced esophagitis and the drug was discontinued. The patient was started on pp and sucralfate therapy. After three days of hospitalization, the patient was discharged with the current therapies. After 2 weeks, control endoscopy was performed and the esophageal mucosa was completely healed. In addition, the patients abdominal pain and nausea in the two weeks it was learned that the complaint. We aimed to present this case because of the first case of esophagitis due to the use of darifenacin.

***Conclusion***: In the mucosal damage due to drugs, some factors related to the drug, the person and the esophagus are effective. Therefore, the chemical structure of the drug taken, the duration of contact with the mucosa, the patient drinking the

drug before going to bed with less water and esophageal motility play a role in the development of esophagitis. Therefore, no matter what medication, especially in the night to be taken with plenty of water to be taken and immediately after the patient to be said to reduce the development of drug-induced esophagitis we believe.

***Keywords:*** Esophagitis, darifenacin, drug

---

***PP-146***

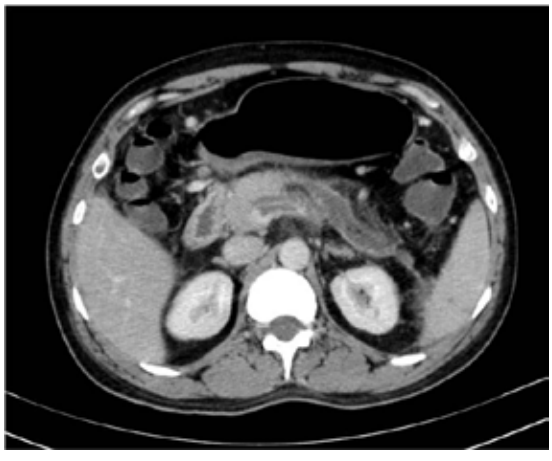
## *A rare association of anti-phospholipid antibody syndrome, acute necrotizing pancreatitis and IGA nephropathy in a young male*

**Ram Chandra Prasad Kammari, Ayaskant Singh, Pradeepta Shekar Patro, Srikanta Kumar Sahoo**

*Institute of Medical Sciences and Sum Hospital, Bhubaneswar, Odisha, India*

A 30 year old Indian male initially presented to the hospital with sudden onset weakness of left lower limb and headache associated with GTCS. MRI brain was advised, which revealed thrombosis of sagittal sigmoid sinus and IJV and venous infracts in right parietal lobe. Investigations like ANA titre, serum homocysteine, serum protein C & S, lupus anticoagulant were within normal limits. ECG and 2D-Echocardiography also showed normal interpretation. He was admitted, treated and discharged with antiepileptics and warfarin to follow up. Three months later patient again presented to the hospital with severe pain in the epigastrium & around the umbilicus with distension of abdomen associated with vomiting since 7 days. On examination, patient vitals were normal, rebound tenderness of the abdomen was present and Cullen sign was positive. Initially ultrasound of abdomen was advised which was suggestive of pancreatitis with splenomegaly and ascites. An initial diagnosis of acute pancreatitis was made and a computed tomography of abdomen was advised to, which was suggestive of acute necrotizing pancreatitis with splenic vein thrombosis. Blood investigations like serum amylase and lipase were raised and anti-β2gpI antibody was strongly positive as shown in the table. A diagnosis of primary antiphopholipid syndrome with acute necrotizing pancreatitis with splenic vein thrombosis was made. Patient was treated conservatively with fluids, analgesics and anticoagulants and was discharged to follow up. 5 months later after the second discharge patient presented to the hospital with anasarca and decreased urination with signs of renal failure and ascites, urine analysis showed high serum creatinine, proteinuria with plenty of RBC's kidney biopsy was advised which showed IgA nephropathy with secondary segmental sclerosis. Patient was finally diagnosed. Acute necrotizing pancreatitis and venous thrombosis due to Antiphospholipid syndrome and IgA nephropathy. Patient was discharged with enalapril, prednisolone and warfarin. Pancreatitis has been previously reported among the various abdominal manifestations of APS, The pathogenesis of pancreatitis is not yet clear though preliminary autopsy reports suggests thromboembolism of the pancreatic blood vessels, without inflammation of the veins, as the most likely aetiology.

***Keywords:*** Antinuclear antibody, antiphospholipid syndrome, generalized tonic clonic seizures, internal jugular vein



| | |
|---|---|
| Hemoglobin | 11.1 gm% |
| TLC | 6700/cu.mm |
| TPC | 1.1 Lakh/Cu.mm |
| Sr AST | 26 IU/L |
| Sr ALT | 22 IU/L |
| Sr Protein/albumin | 6/3.1mg/dl |
| Sr creatinine | 1mg/dl |
| Sr Amylase | 1596 |
| Sr Lipase | 834 |
| Urine albumin | 1+ |
| Urine pus cells | 6-8 |
| Urine RBC | 4-5 |
| ESR | 15 mm/hr |
| PT INR | 1.8 |
| Anti Beta 2GPI antibody | 57 |

***PP-147***

## *The cases of solitary rectal ulcer with mass appearance that imitates the malignancy in rectum*

**Nimet Yılmaz**

*Division of Gastroenterology, Department of Internal Medicine, University of Sanko School of Medicine, Gaziantep, Turkey*

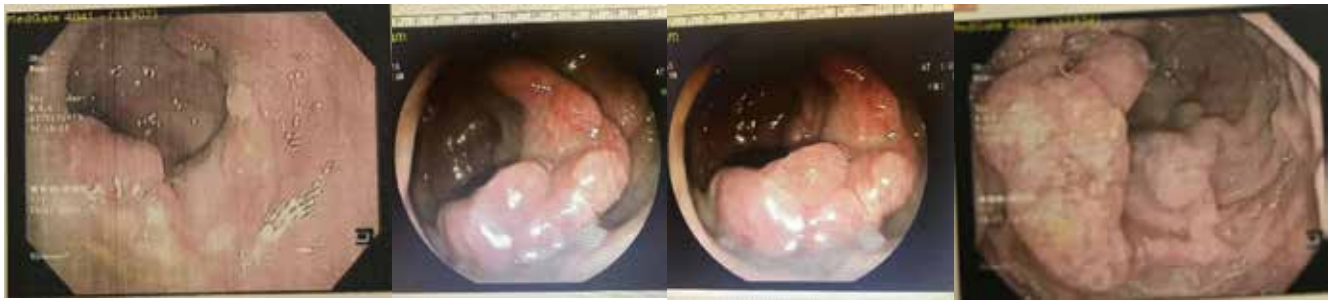
***Background/Aims:*** Solitary rectal ulcer syndrome (SRUS) is common in young-adult age group, its etiology is not clear and good responsive to treatment, but tired to physicians and patients. It may be confused with malignancy due to symptoms such as rectal bleeding, pain and tenesmus. The diagnosis is made by clinical and endoscopic findings and histopathological evaluation. In our study, we aimed to investigate the incidence of SRUS in patients who underwent colonoscopy or recto-sigmoidoscopy in our center and their rates of mimicking malignancy.

***Materials and Methods:*** The study was performed retrospectively in patients who had colonoscopy or recto-sigmoidoscopy between January 2017 and May 2019 by the same physician, in Gaziantep Sanko University Gastroenterology Clinic. As a result of the screening, demographic features, complaints in the application, endoscopic and histopathological findings of cases who diagnosed solitary rectal ulcer were recorded.

***Results:*** A total of 1211 colonoscopy and rectosigmoidoscopy procedures were performed by the same physician. 16 patients had solitary rectal ulcers, 12 of them were men and confirmed pathologically. The mean age of the 16 patients was 26 years (16-42 years). All patients had rectal bleeding and tenesmus complaint and had intense anxiety. The endoscopic appearance of the lesion was polypoid in four of 16 patients (25%) and this situation suggested malignancy (Figure 1a, 1b, 1c). In other patients, the lesions were ulcerated or erythematous hard mucosa (Figure 2) and the distance to the anal canal of these patients lesions ranged from 5 to 10 cm. All of the polypoid-like lesions were approximately 2-3 cm from the anal canal.

***Conclusion:*** The incidence of solitary rectal ulcer is 0.75% in our colonoscopy patients. Our results were significantly higher than the literature and the percentage of patients with polypoid appearance and malignancy was 25%. Even if polypoid lesions in the rectum are malignant appearance, solitary rectal ulcer should be considered in the differential diagnosis. It should be remembered that due to intense anxiety in all patients, psychiatric support may be added to treatment and better results can be obtained.

***Keywords:*** Solitary rectal ulcer, malignancy, colonoscopy



***PP-148***

## *Gastric gastrointestinal stromal tumor case presenting with upper gastrointestinal bleeding*

**Mehmet Önder Ekmen, Ahmet Uyanıkoğlu, Savaş Cumali Efe, Necati Yenice**

*Department of Gastroenterology, Harran University School of Medicine, Şanlıurfa, Turkey*

***Background/Aims:*** Gastrointestinal stromal tumor of gastrointestinal tract is a rare (1%), mesenchymal tumor. It is most frequently located in the stomach in order of frequency (60-70%), small intestines, esophagus, colorectum and is mostly malignant. Complete surgical resection is the most appropriate treatment. In this case report, a 83 years old female who applied with upper gastrointestinal bleeding and later diagnosed as gastrointestinal stromal tumor is presented.

***Materials and Methods:*** Gastrointestinal stromal tumors (GIST) are rare (1%) mesenchymal neoplasm of gastrointestinal tract caused by muscularis propria or Cajal cells which are "pace-maker un cells of gastrointestinal tract from muscularis mucosa.(1). Although rare, GIST is the most common mesenchymal neoplasm of the gastrointestinal tract and should be separated from other mesenchymal tumors. The location of the stomach in order of frequency (60-70%), small intestine, colorectum and esophagus(2).Approximately 85% of cases are located in the stomach and small intestine. Rarely, the esophagus, duodenum and extraintestinal (pancreas, retroperitoneum, mesocolon, spleen, pelviste and gallbladder) may be located(3-6). In the stomach as a submucosal tumor with gastroscopy, the double bowel enteroscopy in the small intestine is now being diagnosed more frequently(7). Gastric submucosal tumors are not very common and the frequency of routine endocopy is reported to be 0.36%.. Diagnostic endosonography (EUS) allowed the extraction of intramural tumor from extraluminal compression and which layer of the gastric submucosal tumor originated.Tumors are characterized by the layer and eco pattern from which they originate. While the malignant potential of these tumors has been determined according to the EUS risk criteria, further diagnosis by EUS-guided fine-needle aspiration biopsy (EUS-FNA) has widened the indications of EUS.Whether the submucosal tumor is GIST and the potential for malignancy is determined by EUS. The GIST is typically hypoechoic and bounded smoothly. GISTs larger than 4 cm in diameter, with irregular boundaries, heterogeneous echocardiography, echogenic foci, and cystic formations are usually malignant(8).Gastrointestinal tumors often spread to the liver, peritoneum, and less spleen, lung, and bone canal(1,9)The exclusive treatment is complete surgical resection and is the only cure(10).Imatinib and sunitinib are the agents used in chemotherapy(10-14). A case with GIST presenting subtotal gastric resection and curing accepted presenting with upper gastrointestinal tract bleeding is presented.Gastrointestinal stromal

tumor is a rare neoplasm of the stomach and may be a rare cause of upper gastrointestinal bleeding. Therefore, rare causes should be considered in upper gastrointestinal bleeding.

***Results:*** An 83-year-old woman who was admitted to our clinic due to a hematoxicia complaint and was admitted for gastrointestinal bleeding, has a known diabetes and a history of congestive heart failure. Plt: 199,000 Krea: 8,8 urea: 227 potassium: 5,8 Sodium: 135 INR: 1,04.The patient was stabilized with blood transfusion, liquid-electrolyte and antacid treatment. Endosonography was recommended. Endosonography at our hospital revealed a heterogeneous mass at the fundus-large curvature junction, with an area of 1.45 * 2.45 cm on the anterior wall, lobulated contours, irregular contours, and hypoechoic necrosis areas.Since the neighborhood of the mass was erased with the wall layers, it could not be determined which layer it was. Hematemesis was detected in the stomach. The lesion was reported to be consistent with bleeding GIST.

***Conclusion:*** The incidence of gastrointestinal stromal tumor (GIST) from submucosal tumors is 7-15 per million. GIST may be associated with other rare tumors. More than 90% of patients are over 40 years old(8)Our patient was an 83-year-old female, with known hypertension, congestive heart failure, and chronic kidney disease. One of the most interesting features of our patient was bleeding from GIST as one of the rarest causes of upper gastrointestinal system bleeding and the patient presented this way. She had a severe hemorrhagic condition and had multiple blood transfusions.After the endosonography (EUS), bleeding from the lesion was reported. In the diagnosis of gastric submucosal tumors, the diagnostic EUS allowed the detection of intramural tumor from extraluminal compression and the determination of which layer it was. Tumors are characterized by the layer and eco pattern from which they originate.Whether the submucosal tumor is GIST and the potential for malignancy is determined by EUS. The GIST is typically hypoechoic and bounded smoothly. GISTs with a diameter greater than 4 cm, with irregular border, heterogeneous echogenic foci, and cystic formations are usually malignant.In our fundus-corpus junction, a heterogeneous mass was detected in the fundus-corpus junction of the patient. As the neighbors walls were wiped with the walls, the layer could not be detected.Hematemesis was detected in the stomach. The lesion was reported to be consistent with bleeding GIST. Separation of GIST from other submucosal tumors (such as leiomyomas, leiomyosarcomas, leiyomyobalstomas) is very important because their treatment and prognosis are very different. Appropriate histological and biochemical staining is required to confirm the diagnosis.The unique histological and immunohistochemical staining of GIST is important in making this differential diagnosis, determining the prognosis and planning the treatment. Gastrointestinal tumors are most commonly spread to the liver and peritoneum. Spleen, lung and bone can be spread less frequently. Thanks to advances in the molecular mechanisms of carcinogenesis in the last decade, the pharmacological treatment of GIST is quite successful(13).In adjuvant chemotherapy, imatinib and sunitinible have very good survival in multimodal therapies and metastatic patients before chemotherapy. As a result, GIST is a rare neoplasm of the stomach and may be a rare cause of upper gastrointestinal bleeding. If endoscopic submucosal mass is larger than 4 cm, it should be evaluated by endosonography. The first treatment to be selected for GIST is complete surgical resection. The diagnosis should be confirmed by histological and immunochemical evaluation of the resection material and adjuvant chemotherapy should be considered in the required patients.

### *References*


1. Di Scioscio V, Greco L, Pallotti MC, Pantaleo MA, Maleddu A, Nannini M et al. Three cases of bone metastases in patients with gastrointestinal stromal tumors. Rare tumors. 2011;3:e17.
2. Patil DT, Rubin BP. Gastrointestinal stromal tumor: advances in diagnosis and management. Arch Pathol Lab Med. 2011;135:1298-310.
3. Bravo E, Garcia C, Zegarra A, Piscoya A, Pinto J, de Los Rios R et al. [Stromal tumor of esophagus: case report]. Rev Gastroenterol Peru. 2011;31:169-72.
4. Mehta C, Gumaste VV, Leytin A, Walfish A. An unusual cause of upper gastrointestinal bleeding: duodenal GIST. a case report and literature review. Acta Gastroenterol Belg. 2011;74:347-51.
5. Barros A, Linhares E, Valadao M, Goncalves R, Vilhena B, Gil C et al. Extragastrointestinal stromal tumors (EGIST): a series of case reports. Hepatogastroenterology. 2011;58:865-8.
6. Petrou A, Alexandrou P, Papalambros A, Saetta A, Fragkou P, Kontos M et al. A Malignant gastrointestinal stromal tumor of the gallbladder immunoreactive for PDGFRA and Negative for CD 117 Antigen (c-KIT). HPB Surg. 2011;2011:327192.
7. Lee BI, Choi H, Choi KY, Byeon JS, Jang HJ, Eun CS et al. Clinical characteristics of small bowel tumors diagnosed by double-balloon endoscopy: KASID multi-center study. Dig Dis Sci. 2011;56:2920-7.
8. Papanikolaou IS, Triantafyllou K, Kourikou A, Rosch T. Endoscopic ultrasonography for gastric submucosal lesions. World J Gastrointest Endosc. 2011;3:86-94
9. Jain A, Dubashi B, Mangaladevi, Chandra SS, Halanaik D. Mesentric gastrointestinal stromal tumor with bone metastases. Indian J Cancer.2011;48:383-4.

10. Chaudhry UI, DeMatteo RP. Advances in the surgical management of gastrointestinal stromal tumor. Adv Surg. 2011;45:197-209.
11. Eisenberg BL, Trent JC. Adjuvant and neoadjuvant imatinib therapy: current role in the management of gastrointestinal stromal tumors. Int J Cancer. 2011;129:2533-42.
12. Barnes T, Reinke D. Practical management of imatinib in gastrointestinal stromal tumors. Clin J Oncol Nurs. 2011;15:533-45.
13. Grignol VP, Termuhlen PM. Gastrointestinal stromal tumor surgery and adjuvant therapy. Surg Clin North Am. 2011;91:1079-87.
14. Balçık ÖŞ, Gümüş İİ, Kamalak Z, Cipil H, Katgusuz İ, Koşar A. Gebelikte imatinib kullanımının güvenliği: iki olgu sunumu ve literatürün gözden geçirilmesi. Turkiye Klinikleri J Gynecol Obst. 2010;20:387-91
15. Erdoğan F, Balık AA, Yılmaz İ, Gürsan N, Altaş S. Nadir bir üst gastrointestinal sistem kanama sebebi: midede leiomyom. Turkiye Klinikleri J Gastroenterohepatol. 2004;15:93-5.

***PP-149***

## *More than sixty stones in common bile duct in a patient with previous cholecystectomy and asymptomatic course: Case report*

**Nimet Yılmaz**

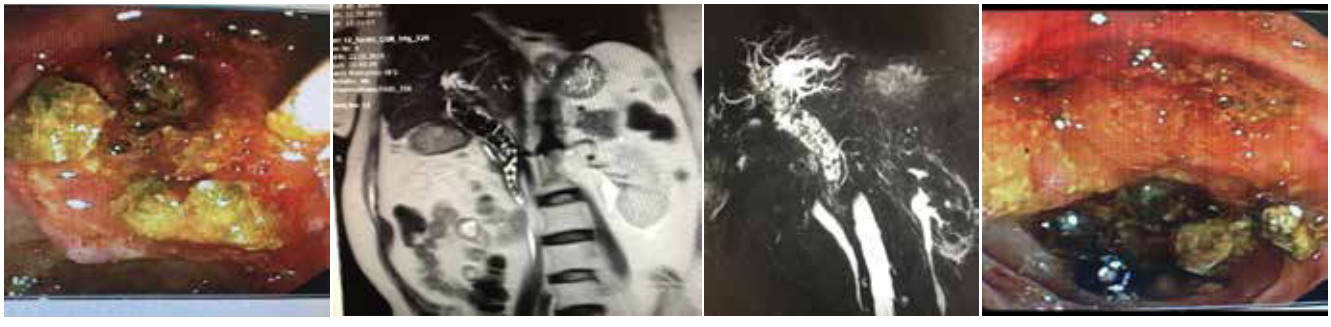
*Division of Gastroenterology, Department of Internal Medicine, University of Sanko School of Medicine, Gaziantep, Turkey*

***Introduction:*** The incidence of asymptomatic bile duct stones is about 10%. In the studies, it was stated that the number and diameter of common bile duct stones are important in the occurrence of symptoms and symptoms are directly proportional to these criteria. Here, a case of a 70-year-old female patient, who was asymptomatic until the time of admission although more than sixty stones were extracted by ERCP, is presented.

***Case:*** A 75-year-old obese-looking female patient presented to the emergency department with the complaints of abdominal pain, fever, and chills increased after the meal. She noted that she had her current complaints for the past one day and had no previous complaints. The patient, who had paraplegia for 15 years and was diagnosed with multiple sclerosis, had a history of cholecystectomy for cholelithiasis three years ago. Physical examination revealed right upper quadrant tenderness. In laboratory tests, AST; 320 U/l, ALT; 312 U/l, total bilirubin; 2.4 mg/dl, direct bilirubin; 1.8 mg/dl, ALP; 440 U/l, GGT; 525 U/l, white blood cell: 19000 cells/$mm^3$. On abdominal CT and USG performed in the emergency department, the diameter of the common bile duct was measured 22 mm and echoes from multiple stones within the common bile duct were observed (figure 1). MRCP showed a dilatated common bile duct containing numerous stone images (figure 2). Based on these findings, the patient underwent ERCP and it revealed dilated common bile duct and the presence of many stones (figure 3a, 3b). After sphincterotomy, the stone extraction with a balloon was performed for 60-65 brown-black stones, 38 of which were 1 cm and over. During the clinical follow-up of the patient, her complaints rapidly regressed.

***Conclusion:*** In conclusion, our patient is an interesting case without any complaints until the time of admission despite multiple stones in the common bile duct.

***Keywords:*** Choledocholithiasis, cholecystectomy, multiple sclerosis



***PP-150***

## *A case of missed diagnosis: Chylous ascites*

**Ramesh Satarkar [1], Shilpa Satarkar [2]**

*[1]Satarkar Gastroenterology Centre, India*
*[2]Antarang Sonography Centre, India*

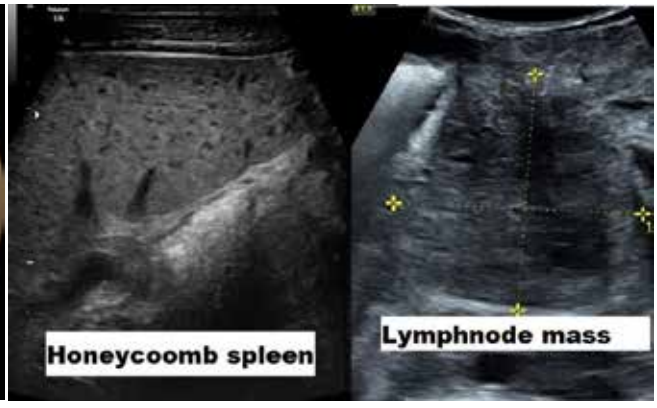
***Background/Aims:*** Chylous ascites is a distinct and rare entity. Diagnosis of chylous ascites is by milky white appearance of the ascitic fluid with triglyceride content more than 200 mg/dl. We present a case of chylous ascites due to Non Hodgkin's Lymphoma where the diagnosis was missed in another tertiary hospital.

***Materials and Methods:*** MFS a 34year non-alcoholic male patient presented with Progressive abdominal distension for lone year, Painless. Associated pedal oedema. No vomiting, gastrointestinal bleeding, Bowel/bladder habits normal. No jaundice. No surgeries in past. Was being treated as Tuberculous ascites in another hospital without relief. He looked ill and cachexic, weighed 53 kg, vital signs were normal. Left axillary central group and bilateral inguinal lymph nodes were enlarged, non-tender. He was pale, had bipedal pitting oedema. No icterus or signs of chronic liver disease. Abdomen was distended, no visible veins or lump. There was gross ascites and organomegaly was difficult to assess due to tense ascites. He had right pleural effusion. His earlier investigation had showed intraabdominal, multiple necrotic lymph nodes, IC junction and ileal thickening, gross ascites, bilateral pleural effusions on USG and CT abdomen. Fluid examination 1000 cells/cu mm with 90% lymphocytes, no abnormal cells. Total protein 1.8 gm/dl albumin 1.1 and SAAG 1.8. HBV, HCV, HIV negative. CA19-9, CA125, αFP, PSA normal.Liver and kidney function tests normal.

***Results:*** He was reinvestigated at our centre and was found to have Lymph node mass in central abdomen, gross ascites, honeycomb appearance of spleen, bilateral pleural effusions on USG. Serum $\beta_2$ microglobin 7626 LDH 238. Ascitic fluid grossly milky, cholesterol< 45, Triglycerides 1100 mg/dl ADA 20 IU. No abnormal cells. Upper Gi endoscopy duodenal lymphangiectasia with visible oozing of lymph. Biopsy confirmed intestinal lymphangiectasia. Inguinal lymph node biopsy grade IIIA Non-Hodgkin's Lymphoma follicular type. Tumour cells positive for CD20, CD10, BCL 2, BCL 6, negative for CD3. Mib 1 index 30%. Patient was put on chemotherapy R-CHOP six cycles and made good recovery. Ascites disappeared. He was advised maintenance Rituximab for two years.

***Conclusion:*** Chylous ascites is a rare entity. Most of the adult cases are associated with advanced malignancy or Cirrhosis of liver. Prognosis is generally dismal. This case signifies the importance of relook approach when the patient is not responding to the treatment.

***Keywords:*** Ascites, chylous ascites, NHL



***PP-151***

## *Unveiling aggressive mucosa-associated lymphoid tissue lymphoma as overt obscure gastrointestinal bleeding*

**Prima Bianca Gaffud-chua, Randy Mercado**

*Cardinal Santos Medical Center, Philippines*

***Introduction:*** This is a case of an aggressive MALToma, with pulmonary involvement (occurring in 1 out of 10 patients), presenting with hematochezia. On literature search, no local data has been reported as of the moment.

***Case:*** A 53-year-old male presented with a 3 day history of initial blood-streaked stool progressing to a large amount of hematochezia, with generalized abdominal discomfort, generalized weakness, light headedness. He is conscious with normal vital signs but with pallor. Abdominal examination was unremarkable, with a fresh blood stool on examining finger per digital rectal exam. An esophagogastroduodenoscopy (EGD) and colonoscopy was done which revealed no source of active or recent bleeding. Red blood cell (RBC) tagging, Computed Tomography (CT) angiogram, enteroscopy and video capsule endoscopy (VCE) were subsequently performed and all were unremarkable. A magnetic resonance imaging (MRI) of the abdomen revealed a focal fusiform dilatation of the small bowel loop in the proximal terminal ileum with a length of 9cm and diameter of 5cm and a second area of focal small bowel loop in the distal jejunum with a length of 8cm (Figure 1). He subsequently underwent exploratory laparotomy, segmental jejunoileal resection with end to end anastomosis and mesenteric lymph node biopsy. Final histopathology with immunohistochemical stains is compatible with MALToma of small intestines (SI). Post operatively patient had unremarkable hospital stay, with no recurrence of bleeding. He had a total of 23 units of packed red blood cell (PRBC) transfusion. He was referred to medical Oncology service and a CT scan was done and revealed pulmonary involvement. He was discharged stable. He is currently undergoing chemotherapy with Rituximab, Cyclophosphamide, Vincristine and Prednisone (R-COP) for 6 cycles in Taiwan and is with good response.

***Conclusion:*** Overt obscure GI bleeding is an uncommon manifestation of MALToma. Diagnostic evaluation and imaging are very important in identifying the specific cause of SI bleeding to guide in a refined and timely approach of management, as this is a life threatening condition. A multidisciplinary team approach is an integral part in the management of cases such as this.

***Keywords:*** Overt obscure GI bleeding, Non Hodgkin B cell lymphoma, MALT lymphoma

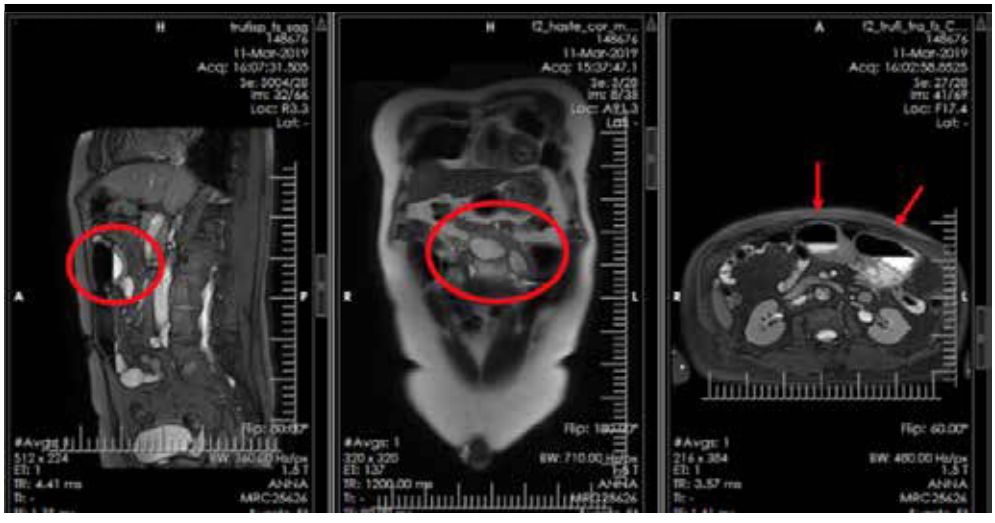


**Figure 1.** MRI images in lateral view, coronal view and sagittal view.

***PP-152***

## *Comparative study of ESD and surgical resection for gastric sets originated from muscularispropria*

**Moon Sung Lee[1], Jun Yong Bae[2], Jin Yong Lee[1], Chang Beom Ryu[1]**

*[1]Soon Chun Hyang University School of Medicine, Korea*
*[2]Seoul Medical Center, Korea*

***Background/Aims:*** Endoscopic resection for gastric subepithelial tumors (SETs) originated from the muscularispropria (GSET-PM) has offered less invasive alternatives to surgical resection. The aims of this study were to compare endoscopic subtumoral dissection(ESD) with surgical resection for GSET-PM.

***Materials and Methods:*** This study involved 17 patients with GSET-PM removed by ESD and 76 patients who underwent curative surgical resection. ESD was attempted in GSET-PM with well marginated tumors which was below 5cm and showed an endoluminal growth pattern according to endoscopic ultrasound(EUS) finding.

***Results:*** ESD group were more likely to have upper portion (10/17, 58.8%) and surgery group were more likely to have mid portion(41/76, 53.8%)(p=0.039). ESD group were smaller median tumor size (25.6 mm vs 35.9 mm, p=0.037) and higher endoluminal ratio (58.5±9.1% vs 45.8±15.4%, p=0.002). ESD group were mostly to have Yamada type III (10/17, 58.8%) and surgery group were mostly Yamada type I (52/76, 68.4%)(p< 0.001). Complete resection by ESD was lower than by surgical resection (82.4% vs 100%, p< 0.001). In ESD group, 3 performed surgical resection after ESD (1 incompletely resection and 2 uncontrolled bleeding) and 1 showed perforation was completely resected with endoscopic closure. In surgery group, complications occurred in 6 patients (1 leakage, 1 stricture, 1 hernia and bowel obstruction, 1 wound infection and 2 worsened general condition). Although surgery group were lower in complication rate than ESD group (p=0.006), severity of complications were higher in the surgery group and there were no mortalities in the ESD group compared with 2 in the surgery group. There was no statistical difference of recurrence and the follow-up period between two group.

***Conclusion:*** ESD can be one of good options for the resection of endoluminal GSET-PM and could be replace treatment by surgical resection in Yamada type III with a high endoluminal ratio.

***Keywords:*** Endoscopic subtumoral dissection (ESD), gastric subepithelial tumors (SETs), originated from the muscularispropria (GSET-PM)

---

***PP-153***

## *Long-term outcomes of endoscopic submucosal dissection for undifferentiated early gastric cancer, beyond expanded criteria*

**Chang Beom Ryu[1], Moon Sung Lee[1], Jun Yong Bae[2]**

*[1]Soonchunhyang University College of Medicine, Korea*
*[2]Seoul Medical Center, Korea*

***Background/Aims:*** Expanded indication of endoscopic submucosal dissection (ESD) for intramucosal undifferentiated early gastric cancer (EGC) up to 2 cm without lymphovascular invasion have been accepted. Without Intramucosal undifferentiated early gastric cancer (EGC) up to 2cm in size without ulceration has been treated by endoscopic submucosal dissection (ESD) because the incidence of lymph node metastasisis negligible. The aim of this retrospective study was to analyze the long-term outcomes of ESD carried out to treat undifferentiated EGC in two groups (group A: up to 2 cm, group B: 2-3 cm).

***Materials and Methods:*** Between January 2001 and March 2015, 104 patients with undifferentiated early gastric cancer (EGC) including poorly differentiated adenocarcinoma (PD, n=66) or signet ring cell carcinoma (SG, n=38) on preoperative biopsy underwent ESD (group A: 71cases, group B: 33cases). Total ESD speciemens were evaluated en bloc resection, R0 resection, and curative resection (CR) and to evaluate long term outcome, annual endoscopic surveillance with biopsy and CT scan were done.

***Results:*** Mean follow up period in group A and B were 61.10±38.12, 60.79±47.75. Mean age in group A and B were 52.90±13.62, 57.00±12.25. En bloc in group A and B were achieved in 92.9%, 90.9% of patients, respectively (NS). R0 resection in were achieved in 87.3%, 51.5% of patients, respectively ($p<0.05$). Curative resection was 83.0% in group A and group B was not include this definition. Complications were no significantly different in both groups, respectively. Recurrence in group A and B were 5.6% (n=4), 18.1% (n=6), retrospectively ($p<0.01$). All cases with lateral margin positive required additional ESD (n=2), desctructive therapy (n=3), or surgery (n=4) and no recurrence happened.

***Conclusion:*** In group B, R0 resection rate was lower than group A but R0 resection in both group were not different recurrence rate with long term follow up. Carefully, undifferented EGC with 2 to 3 cm in a size recommended ESD.

***Keywords:*** Endoscopic submucosal dissection (ESD), intramucosal undifferentiated early gastric cancer (EGC)

---

***PP-154***

## *Feasibility of enteral stents with a new method for malignant obstruction in RT side colon*

**Chang Beom Ryu[1], Moon Sung Lee[1], Jun Yong Bae[2]**

*[1]Soonchunhyang University College of Medicine, Korea*
*[2]Seoul Medical Center, Korea*

***Background/Aims:*** Self-expandable metallic stent (SEMS) is widely used to treat malignant colonic obstruction. However, most reports about SEMS insertion have concentrated on the left colon and very tough to insert SEMS on the right colon, especially distal ascending colon. This study aimed to investigate the effectiveness of new insertion technique with SEMS for right-sided colonic obstruction and compare the safety and technical success of SEMS insertion.

***Materials and Methods:*** The data from ten patients who underwent SEMS with a new technique for malignant obstruction of ascending colon in our hospital were analyzed retrospectively. Initially, we tried to insert with the straight type guiding tube and wire for obstructed area of ascending colon under $CO_2$ insufflation. It defined by difficult cannulation more than 20 minutes manipulation. For difficult cannulation, we change to curved type guiding tube. All cased were difficult cannulation and change to curved type. Cannulation time between straight and curved type guiding tube, technical and clinical success, complications, and technical difficulties were analyzed. We compared the results between SEMS insertion and decompression tube placement in right colons and the outcomes of SEMS insertion between right-and left-sided colonic obstructions.

***Results:*** Cannulation time with a curved type guiding tube decreased of all cases (20 min vs 8.5 min). For ascending colons, the technical and clinical success rate of SEMS insertion with new technique significantly 100% (10/10). There was no complitation (0/10).

***Conclusion:*** A new technique of curved type guiding tube with SEMS insertion for right-sided colon, especially distal ascending colon is significantly more effective than straight type guiding tube, and this procedure was safer and less technically challenging than expected.

***Keywords:*** Right-sided colonic obstruction, self-expandable metallic stent (SEMS)

***PP-155***

# *Targeted release oral cyclosporine (ST-0529) as a potential new therapy for ulcerative colitis: Safety results from a phase IIA study*

**Stuart Bloom[1], Jesse Hall[2], Bruce Dzyngel[2], Benjamin L Cohen[3]**

*[1]University College London Hospitals, London, UK*
*[2]Sublimity Therapeutics, USA*
*[3]Icahn School of Medicine, New York, USA*

***Background/Aims:*** Ciclosporin (CsA) has similar efficacy to infliximab in patients with acute severe ulcerative colitis (UC) who have failed corticosteroids; however, long-term maintenance use of CsA is limited by nephrotoxic, hepatotoxic and immunologic side effects. ST-0529 is a novel, oral, solubilized CsA formulation designed to optimise delivery to colonic tissue. ST-0529 achieves similar or higher colonic tissue concentrations of CsA compared to continuous intravenous CsA infusion, limiting systemic exposure.

***Materials and Methods:*** In a phase IIa double-blind, randomised study of patients with mild to moderate UC (Image 1), 53 subjects received 75 mg/day ST-0529 and 65 received placebo for 4 weeks and were followed for 4 weeks after completing the treatment period. At each study visit, subjects were evaluated for adverse events (AEs) and laboratory tests were performed.

***Results:*** Most subjects completed the study, including 81.1% in the ST-0529 group and 64.6% in the placebo group. A higher proportion of subjects receiving placebo compared to ST-0529 discontinued the study prematurely (35.4 vs 18.9%), mostly due to AEs (24.6 vs 11.3%), and lack of efficacy (7.7 vs 7.5%). The overall proportion of subjects with treatment-emergent AEs (TEAEs) were comparable between groups (Table 1). TEAEs that occurred more frequently in ST-0529 subjects included abdominal pain and distension, lower and upper respiratory tract infections, fatigue, headache, cough and oropharyngeal pain (Table 2). In general, these events were mild or moderate, were not serious, and resulted in relatively few treatment discontinuations. Serious AEs were balanced among study groups and ST-0529 reduced AEs leading to discontinuation. Common AEs associated with CsA were not seen with ST-0529. No subjects died, 1 ST-0259 patient had an abnormal liver function test, and no relevant changes from baseline in renal function (creatinine, 2.0 vs 0.8 µmol/L), nor blood pressure (2.0 vs 3.0 systolic; 0.4 vs 1.2 diastolic) were observed between placebo vs ST-0529.

***Conclusion:*** These phase IIa results demonstrated that ST-0529 was well tolerated and no safety concerns were identified. AEs commonly associated with CsA were not observed with ST-0529. These data suggest that 75 mg ST-0529 may offer a clinically meaningful contribution to the management of patients with UC and support further investigation of ST-0529 in UC patients with moderate disease, which will be the focus of the phase IIb trial.

***Keywords:*** Ciclosporin, ulcerative colitis

***References***

*1. Schroeder KW, tremaine WJ, Ilstrup DM. N Engl J Med. 1987;317(26):1625-1629*
*2. Lichtenstein GR, Kamm MA, Sandborn WJ, Lyne A, Joseph RE. Aliment Pharmacol Ther. 2008;27(11):1094-102.*

| Symptom | Normal (Score = 0) | Mild (Score = 1) | Moderate (Score = 2) | Severe (Score = 3) | Traditional Mayo Endoscopic Subscore[1] |
|---|---|---|---|---|---|
| Rectal Bleeding | None | Streaks of blood | Obvious blood | Mostly blood | Idem |
| Stool Frequency | Normal | 1-2/day >normal | 3-4/day >normal | >4/day >normal | Idem |
| Mucosal Appearance | Normal | Erythema; decreased vascular pattern; **no friability** | Marked erythema; absent vascular pattern; friability; erosions | Ulceration; spontaneous bleeding | Differs in the mild score: Erythema, decreased vascular pattern, **mild friability** |
| Physician's Global Assessment | Normal | Mild | Moderate | Severe | Idem |

**Figure 1.** Modified ulcerative colitis disaesae activity index scoring[2].

***Table 1.*** Overall Summary of Treatment-emergent Adverse Events (Safety Set)

| Treatment-emergent Adverse Events | Number of Subjects (%) | |
|---|---|---|
| | 75 mg ST-0529 (n=53) | Placebo (n=65) |
| Any TEAE | 41 (77.4) | 53 (81.5) |
| Treatment-related TEAE[a] | 11 (20.8) | 18 (27.7) |
| Severe TEAE[b] | 13 (24.5) | 13 (20.0) |
| Deaths | 0 | 0 |
| TE SAE | 5 (9.4) | 5 (7.7) |
| Treatment-related TE SAE | 0 | 1 (1.5) |
| TEAE Events Leading to discontinuation | 6 (11.3) | 15 (23.1) |

SAE, serious adverse event; TE, treatment emergent; TEAE, treatment-emergent adverse event
[a]Each subject was counted only once as the strongest relationship of any event for that subject.
[b]Each subject was counted only once as the maximum intensity of any event for that subject.

***Table 2.*** Treatment-emergent Adverse Events (TEAE) Reported in 2 or More of Subjects in Either Treatment Group (Safety Set)

| MedDRA System Organ Class Preferred Term | Number of Subjects (%) | |
|---|---|---|
| | 75 mg ST-0529 (N=53) | Placebo (N=65) |
| At Least One TEAE | 41 (77.4) | 53 (81.5) |
| Gastrointestinal Disorders | 29 (54.7) | 45 (69.2) |
| Rectal haemorrhage | 10 (18.9) | 13 (20.0) |
| Frequent bowel movements | 9 (17.0) | 12 (18.5) |
| Abdominal pain | 8 (15.1) | 3 (4.6) |
| Worsened ulcerative colitis | 5 (9.4) | 21 (32.3) |
| Nausea | 4 (7.5) | 5 (7.7) |
| Abdominal distension | 2 (3.8) | 1 (1.5) |
| Abdominal pain upper | 1 (1.9) | 2 (3.1) |
| Defaecation urgency | 0 | 2 (3.1) |
| Infections and Infestations | 12 (22.6) | 9 (13.8) |
| Nasopharyngitis | 4 (7.5) | 5 (7.7) |
| Lower respiratory tract infection | 2 (3.8) | 0 |
| Upper respiratory tract infection | 2 (3.8) | 0 |
| Nervous System Disorders (headache, burning sensation, lethargy, migraine, dizziness, hypoaesthesia, paraesthesia, trigeminal neuralgia) | 11 (20.8) | 11 (16.9) |
| Headache | 10 (18.9) | 7 (10.8) |
| Musculoskeletal and Connective Tissue Disorders | 4 (7.5) | 8 (12.3) |
| Arthralgia | 2 (3.8) | 2 (3.1) |
| Back pain | 0 | 3 (4.6) |
| Musculoskeletal pain | 0 | 2 (3.1) |
| Respiratory, Thoracic and Mediastinal Disorders | 4 (7.5) | 3 (4.6) |
| Cough | 2 (3.8) | 1 (1.5) |
| Oropharyngeal pain | 2 (3.8) | 1 (1.5) |
| General Disorders and Administration Site Conditions | 3 (5.7) | 2 (3.1) |
| Fatigue | 2 (3.8) | 1 (1.5) |
| Skin and Subcutaneous Tissue Disorders | 2 (3.8) | 7 (10.8) |
| Acne | 0 | 2 (3.1) |
| Pruritus | 0 | 2 (3.1) |
| Blood and Lymphatic System Disorders | 1 (1.9) | 2 (3.1) |
| Anaemia | 1 (1.9) | 2 (3.1) |

***PP-156***

## *Markers of inflammatory activity in assessing the course of inflammatory bowel diseases*

**Ainur Doszhan, Aiman Galieva**

*Astana Medical University, Astana, Kazakhstan*

***Background/Aims:*** To determine the levels of IL-6, IL-8, TNF-α and fecal calprotectin (FC) in different phases of the disease and compare their values with clinical and endoscopic data in patients with inflammatory bowel disease (IBD).

***Materials and Methods:*** 41 patients with IBD were selected: 78% with ulcerative colitis (UC) and 22% with Crohn's disease (CD), 39% of women and 61% of men, average age 35.3±1.9. UC: acute course-12.5%, chronic continuous-6.25%, chronic relapse-62.5%, rarely relapsing-12.5%, often relapsing-6.25%. Minimum activity-15.6%, moderate activity-84.4%. CD depending on CDAI: mild disease and minimal activity-55.6%, moderate and moderate activity-44.4%.

***Results:*** IL-6 was increased to 20.56±5.51 pg/ml at UC, to 18.64±4.70 pg/ml at CD; IL-8-79.38±15.37 pg/ml at UC and 82.49±34.81 pg/ml at CD; TNF-α-28.70±3.24 pg/ml and 32.32±6.92 pg/ml, respectively. Depending on the degree of damage: for IL-6 at E2-23.91±14.64 pg/ml and at E3-20.54±5.61 pg/ml; for IL-8 at E2-60.95±14.60 pg/ml and at E3-97.31±24.10 pg/ml.

***Conclusion:*** The results of the study showed an increase in the concentrations of IL-6, IL-8, and TNF-α in patients with UC and CD significantly exceeding the control values. With an increase in the activity of the inflammatory process, a significant increase in the levels of IL-6, IL-8, and TNF-α was observed. Determining the level of FC depending on the location of the lesion and the activity of the process confirmed its importance in assessing the degree of damage to the colon and the diagnosis of UC and CD activity in different phases of the disease.

***Keywords:*** IBD, IL-6, IL-8, TNF-α

---

***PP-157***

## *The results of palliative care in end stage cancer patients*

**Hossein Shirazi, Fateme Tajik Rostami, Mina Momeni**

*Iran University of Medical Science, Iran*

***Background/Aims:*** Managing of end stage cancer patients and providing Palliative care is one of the most challenging specialties of health services provision which can solve the problems by interdisciplinary strategy issues. Although cancer registry enacted in 1984 in Iran, palliative care moves slowly. However, due to the resource deficiencies, it is a crucial need of health care providers. The objective of this article is getting knows benefits of palliative care in Iran as one of the continents of Asia.

***Materials and Methods:*** Framework analysis was used. Data were gathered through the experience of Firozgar and Shohdayetajrish Hospital and Isfahan city Sand the literature review of palliative care. After data coding, key themes were extracted

***Results:*** The experience of providing palliative care to about 11500 end-stage patients in Firozgar hospital, Shohdayetajrish Hospital and Isfahan city from 2010 to 2017 represents a great deal of benefits... During data coding and organizing, two main themes were categorized: Patients and family members: Reducing pain and suffering, empathy, emotional support, effective communication, reducing family care costs, improving the quality of life, reducing pain, helping the network, dying with dignity with respect to morality... Specialized health care system: Reducing the cost of care for the health system, reducing

the job fatigue of the health care provider, saving time, focusing on complicated and curable cases, the freedom of untreated patients.

***Conclusion:*** Palliative care could be a win-win solution for all stakeholders such as patients, caregivers, providers, payers, and policymakers. Therefore, the satisfactory results of IRAN Could be generalized all through the country. Finally, according to these benefits, challenges of palliative care in Iran will be presented.

***Keywords:*** Cancer patients, palliative care, framework analysis, Iran

---

***PP-158***

## *Ulcerative colitis and alcohol*

**Galiya Bikbavova[1], Valery Sovalkin[1], Maria Livzan[1], Denis Turchaninov[1], Anastasia Akhramovich[2]**

*[1]Omsk State Medical University of the Ministry of Health of the Russian Federation, Russia*
*[2]Omsk Regional Hospital of the Ministry of Health of the Omsk Region, Russia*

***Background/Aims:*** The role of alcohol in the manifestation and severity of ulcerative colitis (UC) is controversial. Some investigators demonstrate protective effect of alcohol consumption in relation to UC, others declare that alcohol consumption is associated with increased risk of UC recurrence. Alcohol drinks contain considerable amount of additional sulfates that increase fecal hydrogen sulfide production which demonstrates direct cytopathic activity towards colonocytes. However, polyfenols of wine, tea, coffee, cacao are stated as local immune response regulators with direct and relational impact on intestinal microbiom. Furthermore, alcoholic and non-alcoholic red wine affect positively on intestinal microbiom. We performed case-control study in order to evaluate influence of different types of alcoholic beverages on manifestation of UC in adult population of Western Siberian region.

***Materials and Methods:*** We interviewed 81 patients with acute and chronic UC and 39 healthy adults group-matched by age-gender characteristics. CINDI WHO survey was used to evaluate alcohol intake. The survey included questions on frequency, amount and types of alcohol consummated within 12 months prior UC symptoms manifestation. Each type of alcohol (beer, wine, vodka, cognac) was evaluated separately by frequency and amount. U-criteria was used for quantative parameters comparison, 2I – statistics (Kulback) for descriptive characteristics.

***Results:*** Patients with UC started alcohol consumption at the mean afe of 19.0 (median). 66.7±5.2% of patients with UC ingested alcohol beverages within a year prior to the disease manifestation. Median frequency of alcohol consumption by patients with UC was equal 0.1 (0.0-1.0), less than once a month. Patients with UC were more rare wine consumers a year prior first symptoms development (p=0.0026), drank smaller amount of wine per 1 day (p=0.0013), and per portion (p=0.0014) by contrast with healthy individuals. There was no difference between groups compared in ingestion of strong alcohol beverages and beer.

***Conclusion:*** Small dose of alcohol (wine) intake (less than 20 ml per day) demonstrates possible preventive impact on UC development and manifestation.

***Keywords:*** Ulcerative colitis, alcohol

---

***PP-159***

## *Prevalence of functional gastrointestinal disorders in Russian children*

**Vladimir Chikunov, Natalya Ilenkova**

*Krasnoyarsk State Medical University Named After Professor V.f. Voyno-yasenetsky, Russia*

***Background/Aims:*** Functional gastrointestinal disorders (FGIDs) are a group of disorders of the digestive system in which the chronic or recurrent symptoms cannot be explained by the presence of structural or tissue abnormality. Pediatric functional gastrointestinal disorders are a common problem worldwide. So far, epidemiologic data about FGIDs with respect to infants and younger children in Russia is limited. In this prospective study we aim to determine the prevalence of functional gastrointestinal disorders in young children in single Russian center.

***Materials and Methods:*** We have enrolled infants and children aged between 0 and 4 years, who attended in University clinic, Krasnoyarsk, Russia, for a regular check-up. Two separate study questionnaires have been developed: one for children aged between 0 and 6 months, and the other one for children aged between 7 months and 4 years. Each questionnaire consisted of 3 parts evaluating: 1) clinical history 2) symptoms 3) socio-demographic information on the family and exposure to stressful life events. FGIDs were defined according to the Rome criteria IV (2016).

***Results:*** A total of 300 children has been included: Group 1 consisted of 180 children (male 110 (61.1%), female 70 (38.9%)) aged between 0 and 6 months, whilst Group 2 consisted of 120 children (male 50 (41.7%), female 70 (58.3%) aged between 7 months and 4 years of age. According to the Rome IV (2016) criteria, the prevalence of FGIDs in children between 0 and 6 months of age was 23%, while in children aged between 7 months and 4 years the prevalence of FGIDs was 18.33%. Specifically, the most common FGIDs in children from Group 1 were infant regurgitation (5.55%) and infant colic (19.44%), whereas in children from Group 2 the most common FGID was functional constipation (31.66%).

***Conclusion:*** This community sample, collected in Russian clinical center, demonstrated that FGIDs are common in young children. Prevalence of FGIDs tends to be higher in the first months of life.

***Keywords:*** Infant regurgitation, functional gastrointestinal disorders, children

***Table.*** Prevalence of functional gastrointestinal disorders in Russian children

| | 0 – 6 months | 7 months – 4 years |
|---|---|---|
| FGIDs | n=180 | n=120 |
| G1. Infant regurgitation | 10 (5.55%) | 1 (0.83%) |
| G2. Rumination syndrome | 2 (1.11%) | 1 (0.83%) |
| G3. Cyclic vomiting syndrome | 1 (0.55%) | 4 (3.33%) |
| G4. Infant colic | 35 (19.44%) | 3 (1.65%) |
| G5. Functional diarrhea | 4 (2.22%) | 8 (6.67%) |
| G6. Infant dyschezia | 10 (5.55%) | 1 (0.83%) |
| G7. Functional constipation | 7 (3.88%) | 38 (31.66%) |
| Any FGIDs | 69 (23%) | 55 (18.33%) |

***PP-160***

## *Change of plasma renin – aldosterone and paracentesis – induced circulatory dysfunction after abdominal paracentesis less than 5 liters in difference meld – ascitic cirrhotic patients*

**Thaphat Songlin, Supatsri Sethasine**

*Department of Gastroenterology, Vajira Hospital and Navamindradhiraj University School of Medicine, Bangkok, Thailand*

***Background/Aims:*** Therapeutic abdominal paracentesis is associated with the occurrence of paracentesis induced circulatory dysfunction (PICD), manifested by a marked increase of plasma renin activity. Previous studied were performed either before model for end-stage liver disease (MELD) allocation or done in patients with low MELD scores. The aim of study was to characterize the change of plasma renin activity-aldosterone concentration and investigate the clinical importance of PICD after non-large volume paracentesis with differences in the MELD cirrhotic ascites.

***Materials and Methods:*** Cirrhotic patients with tense ascites were divided in two groups by MELD calculation: MELD ≤ 15 and MELD >15. Changes in plasma renin, aldosterone and other laboratory tests were assessed before and 6 days after modest volume paracentesis (less than 5 liters). PICD was defined as an increase in plasma renin activity on the sixth day after paracentesis of more than 50% of baseline value to a level >4 ng/mL/hr. After paracentesis, complications were also assessed within 90 days of follow up periods. Factors associated with death were determined using Cox proportional hazards models.

***Results:*** Sixteen patients with MELD ≤ 15 and 14 patients with MELD >15 were included in this study. Significant increase in median change of plasma renin but not plasma aldosterone between group of MELD >15 and MELD ≤ 15 were [ 54.7% (10.8 – 1800) vs 17.6% (0 – 536.4), *p*=0.01; 15.2% (3.3 – 59.1) vs 11.6% (0 – 200), *p*=0.55] respectively. 35.7% of all patients occurred PICD events and all of them within high MELD group with the Kaplan–Meier survival analysis demonstrated a short median survival of 28 days. High MELD patients have more acute kidney injury consequence (28.6% vs 0%; *p*=0.04) and a significantly increased 90 days mortality as compared to low MELD group (71.4% vs 6.3%, p< 0.01). Multivariate cox regression analysis indicated that only high MELD but not PICD is predict mortality with 10.73 times higher risk of death after paracentesis than low MELD patients (Adjusted HR 10.73, 95% CI 1.24-92.98, *p*=0.03).

***Conclusion:*** Non – large volume paracentesis in high MELD cirrhotic patients cause a significant increase in plasma renin activity. PICD was occurred only in high MELD patients and associated with an increasing risk of acute kidney injury and mortality. Elevated MELD score in advanced cirrhotic patients should be considered increase risk for development of circulatory dysfunction, more complication and a short survival even after non-large volume paracentesis without albumin replacement.

***Keywords:*** Model of End-Stage Liver Disease, paracentesis induced circulatory dysfunction, renin

---

***PP-161***

## *Endoscopic vacuum-assisted closure in the therapy of postoperative perforations, leaks and fistulas following esophageal and gastric surgery – a single centre experience*

**Martin Stašek, René Aujeský, Radek Vrba, Josef Chudáček, Linda Bébarová, Dušan Klos, Čestmír Neoral**

*University Hospital Olomouc, Czech Republic*

***Background/Aims:*** Endoscopic vacuum-assisted closure (EVAC) is a promising method for endoscopic therapy of ruptures, fistulas, and leaks of the gastrointestinal tract. Despite the common use in rectal leaks, the use in the upper gastrointestinal tract (UGI) is less frequent. Success rate is very convincing, but the indications are still emerging.

***Materials and Methods:*** Prospectively observed case series of postoperative conditions in the UGI tract with endoscopic treatment using EVAC in a 2-year period and evaluation of the effectiveness.

***Results:*** A total of 26 procedures (3-12, ø 5,2) were carried out in 5 patients. The indications included acute (2 leaks following esophageal resection, 1 rupture of the strictured anastomosis following pneumatic dilatation) and 2 chronic conditions (esophagopleurobronchial and gastropleurobronchial fistulas following the resection of esophageal diverticulum and sleeve gastrectomy). The initiation of the therapy was in 13,18 and 1 day in case of acute conditions, and after 2 years of the duration of the unsuccessful therapy in 2 chronic cases. The successful closure was observed in 2 patients, 1 patient passed from MODS and ARDS. In 1 case, the initiation of EVAC was provided as a combined surgical and endoscopic intervention (CT proven distant intraabdominal abscesses). In 2 chronic cases, 1 was discontinued due to the haemophagocytic syndrome of

unknown etiology, in the second one, success in reduction of the lesion and symptomatology with long term duration was observed following just 3 applications of EVAC, despite minimal remanent leakage.

***Conclusion:*** The success of EVAC is to our experience linked to early initiation of the therapy and presumes complex intensive care. The future investigation should specify the timing including preemptive use of EVAC and the combination of EVAC with other endoscopic, interventional and surgical therapeutic modalities. The use in complex fistulas is promising.

***Keywords:*** Postoperative leak, esophageal surgery, gastric surgery, endoscopic vacuum assisted closure

***PP-162***

## *Candidate culturable markers of colorectal cancer – single center observational study*

**Lubomír Starý [1], Vladislav Raclavský [2], Kristyna Mezerova[2], Juraj Riško[1], Ivo Klementa[1], Pavel Zbořil[1], Martin Stašek[1], Čestmír Neoral[1]**

*[1]Department of Surgery, Palacký University Olomouc School of Medicine and Dentistry, Czech Republic*
*[2]Department of Microbiology, Palacký University Olomouc School of Medicine and Dentistry, Czech Republic*

***Background/Aims:*** The role of gut microbiota in the development of sporadic colorectal cancer (CRC) is supported by a number of studies. Conclusiveness of metagenomic studies is limited by small cohort sizes. Metagenomic techniques are still not widely available for routine use at a wide scale, and they also do not always reach the depth needed for species-level identification. MALDI-ToF MS has brought about a breakthrough in pure culture examination by reducing labour, time and costs needed for identification. Although many anaerobic bacterial inhabitants of the gut are considered unculturable, this is rather true if culture is performed on a limited number of growth media using simple routine techniques. Actually, culture is performing far better than generally believed. Therefore, we decided to perform a pilot study of the performance of extended conventional cultivation followed by MALDI-ToF MS species identification for detection of potential microbial markers associated with newly diagnosed CRC.

***Materials and Methods:*** The study was performed in the period 2014-2019. The single centre cohort (n=127) included newly diagnosed colorectal adenoma or cancer. The age-matched controls (n=127) were recruited among patients seeking care for non-adenoma non-CRC diagnosis. Conditions that may affect the composition of gut microbiota profoundly were applied as exclusion criteria, namely any form of inflammatory bowel disease (IBD), antibiotic use within 2 month before sampling, diarrhoea or other symptoms of GIT infection within 2 weeks before sampling, and bowel-clearing within 1 week before sampling. Rectal swabs were inoculated on Columbia blood agar (CBA), MacConkey agar (MCA), Brain-heart infusion agar with sheep blood (BHI-BA), Schaedler agar (SA), F.A.A. Neomycin agar (FNA), NAS agar, McKay agar and Sabouraud glucose agar (SGA) plates with chloramphenicol (Oxoid, UK). The plates were cultured at 37°C in ambient air supplemented with 5% carbon dioxide (CBA, MCA), 30°C in ambient air (SGA) and at 37°C in the anaerobic gas mixture (80% nitrogen, 10% carbondioxide, 10% hydrogen; BHI-BA, SA, FNA) and under microaerophilic conditions (the same gas mixture enriched by 1% dioxygen, NAS and McKay agar plates). All colonial morphotypes were identified using MALDI-ToF MS protein profiling following manufacturer's instructions.Significance of potential associations of particular species with newly diagnosed CRC was evaluated using chi-square test.

***Results:*** Average age and percentage of males in the CRC group versus control was 67.0±10.52 versus 66.9±10.62, and 60.4% versus 49.5%. On average, 9.5 species were identified per sample. Among those species, apparently overrepresented in the CRC group, two of them were associated with CRC significantly, namely Clostridium ramosum (p=0.020) and Clostridium perfringens (p=0,029). Interestingly, both are known for toxin production and C. perfringens bacteremia has been recently linked with subsequent diagnosis of CRC in a large retrospective study.

***Conclusion:*** Our results demonstrate that extensive conventional culture is able to detect potential microbial markers of CRC and complement the results of existing metagenomic studies. Economic performance and easy standardization are the main strongpoints of conventional culture, making it suitable for long-term multi-center studies. Candidate status of CRC marker species detected in our study needs to be verified on general population.

***Keywords:*** Colorectal cancer, clostridium perfringens, clostridium ramosum

***PP-163***

## *Systemic and localized colonic JAK1 inhibition by itacitinib ameliorates experimentally-induced inflammatory bowel disease in mice*

**Monika Scuron, Brittany Fay, Brian Long, Julian Oliver, Melissa Parker, Eduardo Huarte, Wenqing Yao, Paul Smith**

*Incyte*

***Background/Aims:*** Inflammatory bowel disease (IBD) is a group of idiopathic chronic and relapsing afflictions resulting from a complex interaction between the immune system and tissues of the gastrointestinal tract. Multiple cytokines and growth factors in the pathogenesis of IBD signal through the Janus kinase/signal transducers and activators of transcription pathway. Itacitinib is an oral small molecule selective JAK1 inhibitor, currently evaluated in a clinical trial for moderate to severe ulcerative colitis (NCT03627052). Aims: To evaluate itacitinib efficacy as a monotherapy in chemically-induced murine IBD models.

***Materials and Methods:*** Preclinical IBD models were established in BALB/c mice by intracolonic injection of 2,4,6-trinitrobenzene sulfonic acid (TNBS) or 4-ethoxymethylene-2-phenyl-2-oxazolin-5-one (oxazolone) to trigger an immune response. Body weight, stool consistency and fecal blood were scored. Additional readouts included colon weight to length ratio and histological evaluation. Blood was collected for pharmacokinetic analysis.

***Results:*** Itacitinib potently inhibits JAK1 with 22 to >500-fold selectivity for other JAK family members. In chemically-induced colitis, twice daily itacitinib dosed orally (PO) at 30 mg/kg or intracolonically (IC) at 3 mg/kg significantly ($p<0.05$) improved stool consistency and fecal blood score as compared to control. In the oxazolone model, itacitinib at 30 mg/kg PO BID showed significant ($p<0.05$) reduction in colon shortening and weight gain. Itacitinib at 3 mg/kg IC BID also significantly ($p<0.05$) reduced colon shortening, and ameliorated total colonic macroscopic damage. Intracolonic itacitinib doses maintained systemic drug exposure below JAK1 IC50, but achieved comparable inhibition of experimental IBD.

***Conclusion:*** Itacitinib, a potent and selective JAK1 inhibitor, significantly modulated weight loss and disease severity in experimental models of colitis resulting in more rapid recovery. Total disease burden was significantly reduced in the itacitinib treated animals versus control. Together, the data suggest that itacitinib may have potential as a therapeutic agent for the treatment of IBD.

***Keywords:*** IBD, JAK1 inhibitor, murine colitis model

---

***PP-164***

## *Retrospective analysis of the performance of EUS-guided fine needle aspiration vs. fine needle biopsy in the diagnosis of malignant solid lesions in a tertiary centre*

**Ahmad Abdul Rahman[1], Christopher Yin Hiew Kia[2], Jason Hwang[2], Benedict Devereaux[2]**

*[1]Department of Gastroenterology and Hepatology, Gold Coast University Hospital, Australia*
*[2]Department of Gastroenterology and Hepatology, Royal Brisbane & Womens Hospital, Australia*

***Background/Aims:*** EUS-guided Fine Needle Aspiration (FNA) with rapid on-site examination (ROSE) cytology is the established first-line technique for diagnostic tissue acquisition of solid lesions. EUS – guided Fine Needle Biopsy (FNB) however, facilitates core sample acquisition for histological assessment We compare EUS-FNA and EUS-FNB performance in a retrospective analysis of prospectively obtained samples of solid lesions in our tertiary-referral endoscopy centre.

***Materials and Methods:*** All cases with confirmed malignant solid lesions that underwent EUS-guided tissue acquisition between July 2017 to October 2018 were included. The electronic medical records were interrogated to obtain data regarding

patient characteristics, lesion characteristics, interventions used and outcomes. Performance characteristics of FNA and FNB were compared. Statistical analysis was performed using SPSS ver. 20. We then further analysed factors that may influence the diagnostic yield using a multivariate logistic regression method.

***Results:*** 51 cases of malignant solid lesions underwent FNAs whilst 17 underwent FNBs. Patient demographics were similar in both groups. Cases with FNA were noted to have significantly more fellow presence, greater use of 25G needle, increased needle passes, increased ROSE presence and greater reported sampling adequacy (Table 1). However, FNA cases yielded less diagnostic specimens compared to FNB cases (54.9% vs. 82.4%, p=0.044). Higher diagnostic yield was noted with less trainee presence (p=0.039), larger lesion size (p=0.007), FNB method (p=0.044) and use of larger 22G needle (p=0.044) (Table 2). Multivariate logistic regression however, identified only the larger lesion size as being the main predictor of a positive diagnostic yield (p=0.003).

***Conclusion:*** Increase in the diagnostic yield was noted with FNB method and using the larger 22G needle. Larger lesion size was the only significant factor influencing a positive diagnostic yield on a multivariate analysis. Overall, FNB is an acceptable, or possibly superior method for tissue acquisition during EUS.

***Keywords:*** EUS, FNA, FNB, ROSE, cytology histology

---

***PP-165***

## *Efficacy and safety of anti-TNF therapies in patients with inflammatory bowel disease*

**Anahita Sadeghi, Samaneh Mohagheghi, Homayoon Vahedi, Sudabeh Alatab, Alireza Sima, Amir Anushiravani, Reza Malekzadeh**

*Digestive Disease Research Institute, Tehran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** The tumor necrosis factor (TNF) inhibitor agents have been used in treatment of patients with moderate-to-severe forms of Inflammatory Bowel Disease (IBD). The most commonly used anti-TNF agents are infliximab (IFX) and adalimumab (ADA). We aimed to, retrospectively, evaluate the efficacy and safety outcomes of IFX and ADA used in moderate to severe IBD patients.

***Materials and Methods:*** We retrospectively analyzed medical data of all patients with moderate to severe IBD treated with an anti-TNF agent (IFX and/or ADA (CinnoRA®, CinnaGen Company, Iran) who came to gastroenterology outpatient clinics of Shariati hospital affiliated to Tehran University of Medical Sciences from 2013 to 2018. Outcomes of induction and maintenance, classified as failure or clinical response and patient reported adverse events, were evaluated at 12 weeks of IFX therapy, 14 weeks of ADA therapy and 48 weeks of both.

***Results:*** Out of 700 patients received ADA or IFX, we could provide the complete information of 315 patients. Of these patients, 164 were females (52.1%), Mean age was 37.3±12.3 years, 161 (51.1%) had ulcerative colitis, mean duration of disease was 8.8±6.6 years. Of these patients 139 (44.1%) were received ADA, 74/315 (23.5%) were switched IFX to ADA. Response rate to anti-TNF therapy was shown in figure 1. Sixteen adverse events (5.1%) occurred that fourteen patients had redness and pain at the site of injection; in 2 (0.6%) had pneumonia necessitating hospitalization.

***Conclusion:*** The local experience with anti TNF (ADA, IFX) in Iran supports its efficacy and safety in the treatment of IBD.

***Keywords:*** Inflammatory bowel disease, Anti-TNF, adverse events

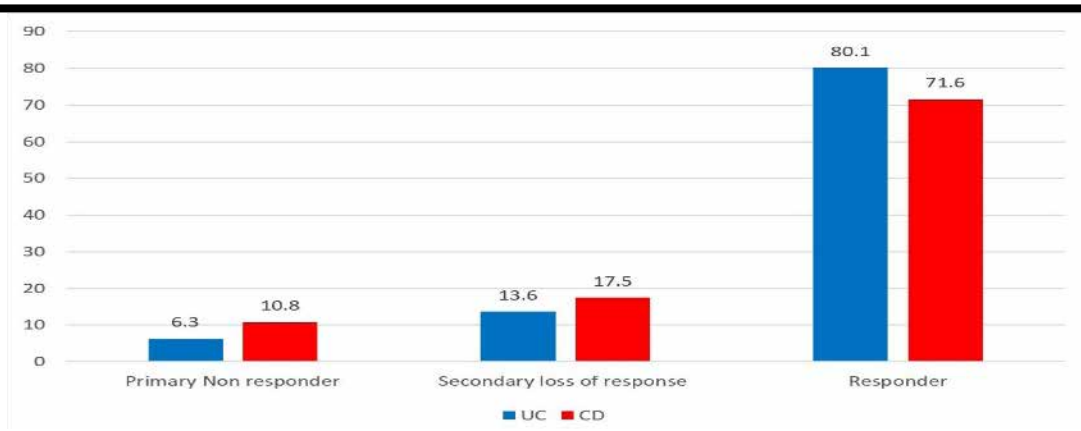



**Figure 1.** Response rate (%) to anti-TNF therapy.
*Patients were considered to be primary non to anti-TNF therapy if their treatment was discontinued by physicians before 12 weeks of therapy in case of using CinnoRA® and 14 weeks with IFx. The willingness of patient to terminate the therapy or occurrence of side effects as a reason for treatment discontinuation did not included in the analysis. The secondary loss of response was defined as either using the anti-TNF-afents for less then 48 weeks but more than 12 weeks for CinnoRA® and 14 weeks for IFX, or need for colectomy. UC: ulcerative colitis, CD: crohn desaes

***PP-166***

## *Correlation of disease severity with fecal toxin enzyme immunoassay in patients with clostridium difficile infection in a Korean University Hospital*

**Seungok Lee[1], Eunhee Han[1], Dong Wook Jekarl[2], Jeong-seon Ji[3]**

*[1]Department of Laboratory Medicine, Incheon St. Mary's Hospital, The Catholic University of Korea, Republic of Korea*
*[2]Department of Laboratory Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Republic of Korea*
*[3]Division of Gastroenterology, Department of Internal Medicine, Incheon St. Mary's Hospital, The Catholic University of Korea, Republic of Korea*

***Background/Aims:*** Clostridium difficile is a major infectious cause of antibiotic-related diarrhea, and the appropriate rapid laboratory tests is important for diagnosis of C. difficile infection (CDI) from other causes of hospital-acquired diarrhea. The aim of this study was to evaluate the clinical usefulness of C. difficile toxin enzyme immunoassay (EIA) and nucleic acid amplification test (NAAT) in relation to the severity of CDI according to two different severity criteria: an ATLAS score by Miller et al. and a severity score by Zar FA et al.

***Materials and Methods:*** From Dec 2015 to May 2018, a total of 91 patients suspicious of antibiotic-related diarrhea in cases showing at least one positive (including equivocal) for fecal C. difficile toxin EIA (VIDAS toxin A/B enzyme-linked fluorescent assay, BioMerieux SA, France) and/or NAAT (the Seeplex Diarrhea ACE kit, Seegene, Korea) were investigated the correlation of the results of the each assay with the severity of CDI by retrospective chart review and statistical test.

***Results:*** Among 91 patients, 52 cases revealed C. difficile toxin EIA (+)/NAAT(+), 36 cases revealed EIA (-)/NAAT(+), and 3 cases revealed EIA(+)/NAAT(-). The C. difficile EIA toxin positivity showed significant correlation with the severity criteria by Zar FA et al. and the ATLAS score (p=0.0376 and p=0.0006, respectively), but the NAAT was not (p=0.5703 and p=0.2356, respectively). Additionally, the fecal toxin levels by C. difficile toxin EIA showed significant correlation with the ATLAS score (p=0.0006).

***Conclusion:*** The fecal C. difficile toxin level are correlated with disease severity. C. difficile toxin EIA assay can be useful in evaluating the severity of CDI.

***Keywords:*** Clostridium difficile infection, disease severity, toxin enzyme immunoassay

***PP-167***

## *Over-expression of HO-1 enhances the paracrine effects of human chorionic mesenchymal stromal cells on necrotizing enterocolitis via HGF/C-MET/PI3K/AKT-mediated induction OF COX2*

**Faxin Ma, Weihong Sha, Hao Chen**

*Guangdong Provincial Peoples Hospital, China*

***Background/Aims:*** Necrotizing enterocolitis(NEC) is a kind of severe inflammatory disease of the gastrointestinal tract that results in high morbidity and mortality predominantly in preterm infants. There is currently no effective method for treatment. Our previous studies had shown that conditioned medium derived from bone marrow mesenchymal stem cells pretreated with inflammation can enhance paracrine effect to repair intestinal damage through the heme oxygenase-1 (HO-1) pathway. Human chorionic mesenchymal stem cells have many advantages compared with bone marrow mesenchymal stem cells. At present, there are few reports on human chorionic mesenchymal stem cells on NEC. This article aims to investigate the role of HO-1 overexpressing human chorionic mesenchymal stem cells in repairing NEC and its mechanism, and it is expected to become the theoretical cornerstone for clinical application of exosomes in the treatment of intestinal diseases.

***Materials and Methods:*** Experimental NEC modeling was performed according to the literature method. And randomly divided the animals into four groups: control group, NEC injury + normal medium (NEC+basal medium), NEC injury + human chorionic mesenchymal stem cell conditioned medium (NEC+ hCMSC-CM), NEC injury + HO-1 transfected human chorionic mesenchymal stem cell conditioned medium (NEC+ $hCMSC^{HO-1}$-CM). To study the survival rate, histological changes, intestinal permeability and motility, proliferation and apoptosis of intestinal epithelial cells and expression of signaling molecules.

***Results:*** Our results showed that $hCMSC^{HO-1}$-CM but not hCMSC-CM intraperitoneal injection in the NEC model improved the survival rate, intestinal structure and function of the intestine, reduced intestinal inflammation, decreased apoptosis, and promoted cell proliferation of intestinal epithelial stem cells. These improved effects are regulated by the paracrine effect of $hCMSC^{HO-1}$, the possible mechanism of which is HGF may act via HGF/c-met/PI3K/Akt to induce redistribution of COX-2 positive cells. Future research efforts should focus on the potential clinical applications of HO-1 transfected hCMSCs conditioned medium and further elucidate its downstream signaling mechanisms to develop innovative drugs for neonates affected by NEC.

***Conclusion:*** In conclusion, intraperitoneal injection of $hCMSC^{HO-1}$-CM in the NEC model improved survival, intestinal structure and function, reduced intestinal inflammation, decreased apoptosis, and promoted cell proliferation of intestinal epithelial stem cells. These improved effects are regulated by the paracrine effect of hCMSCs, the possible mechanism of which is HGF/c-met/PI3K/Akt HGF-induced redistribution of COX-2 positive cells. Future research efforts should focus on the potential clinical applications of hCMSCs and further elucidate its downstream signaling mechanisms to develop innovative drugs for neonates affected by NEC.

***Keywords:*** Necrotizing enterocolitis, mesenchymal stem cells, conditioned medium, inflammation, intestinal stem cells, HO-1, COX-2

---

***PP-168***

## *A case report on coil-assisted retrograde transvenous obliteration in refractory hepatic encephalopathy (carto) secondary to spontaneous portosystemic shunt in an adult*

**Maria Andrea Vergara, Madalinee Eternity Labio**

*Makati Medical Center, Philippines*

***Background/Aims:*** Spontaneous portosystemic shunts accounts for 46-71% in patients leading to excessive shunting of blood from the portal vein to the inferior vena cava, these patients have preserved liver function presenting with hepatic encephalopathy recalcitrant to conservative and medical therapy. Coil-Assisted Retrograde Transvenous Obliteration (CARTO) in a refractory hepatic encephalopathy is treatment option for shunt obliteration.

***Materials and Methods:*** We report a 68 year old male with an 8-month history of recurrent confusion and hyperammonemia on a noncirrhotic liver. Significant past medical history are presence of ventricular tachycardia with an implantable cardioverter defibrillator, chronic kidney disease and subclinical hypothyroidism, despite amiodarone, furosemide, ketoanalogues, carvedilol, rivaroxaban, levothyroxine; he has no significant alcoholic intake nor risk of acquisition of viral hepatitis. The patient would have episodes of disorientation, unsustained regard with no localizing neurological sings, no abdominal pathology nor stigmata of chronic liver disease.

***Results:*** A comprehensive work-up showed a baseline serum ammonia was 209 ug/dL (normal 30-122 ug/dL), seronegative for Hepatitis B, C with adequate synthetic liver function, unremarkable Doppler ultrasound of the hepatic and portal vein, CT scan of the whole abdomen and esophagogastroduodenosocopy. CT scan of the Brain and EEG were then also compatible with metabolic encephalopathy. Consideration was Urea Cycle Deficiency with initial good response with L-ornithine-L-arginine (LOLA) exhibiting sustained wakefulness and was eventually sent home stable. However multiple readmissions took place with hyperammonemia at 333 ug/dL with a labile response on hepatic encephalopathic regimen: lactulose, rifaximin and inclusion of sodium benzoate. Liver biopsy revealed chronic venous outflow obstruction favoring congestive hepatopathy with nodular regenerative hyperplasia and isolated perivenular nodules. Further investigation and review of the CT scan showed a left gastrorenal shunt, splenorenal shunt with prominence of the gonadal vein and gastric varices. CARTO was subsequently done and patient responded well with sustained wakefulness and decreasing serum ammonia at 69 ug/dL. However during the interim patient developed hypotension from sepsis, cardiovascular failure with renal compromise, accompanied by sensorial deterioration. A repeat Contrast CT scan of the abdomen showed resolution of dilated gastric varices, inferior mesenteric vein, left renal vein and gonadal vein. However, the patient eventually succumbed to multi-organ failure from sepsis.

***Conclusion:*** Spontaneous portosystemic shunt is a rare anatomical anomaly creating a diversion of the portal venous system into the inferior vena cava. Diligent assessment of vascular malformations of the liver is mandated in any case of encephalopathic adult wherein exhaustive efforts have excluded primary neurological or non-hepatic causes of metabolic compromise. CARTO is a promising treatment option in these cases.

***Keywords:*** Case report, spontaneous portosystemic shunt, coil-assisted retrograde transvenous obliteration

---

***PP-169***

## *Fibrolamellar hepatocellular carcinoma in adolescent in Maputo central hospital-case report*

**Roqueia Cumbana[1], Liana Mondlane[1], Luzmira Dimande[1], Fátima Maibaze[1], Ema Nassone[1], Regina Victor[1], Muhammad Ismail[1], Sheilla Machatine[1], Michella Loforte[1], Luisa Jamisse[2], Lucilia Lovane[2], Fabiola Fernandes[2], Fátima Carneiro[3], Micail Julaya[4], Alberto Morais[5], Prassad Modcoicar[1]**

*[1]Gastroenterology Service*
*[2]Pathological Anatomy Service*
*[3]Pathological Anatomy Service-SÃo JoÃo Hospital, Portugal*
*[4]Surgery Service*
*[5]Oncology Service*

Fibrolamellar hepatocellular carcinoma (FHCC) is a rare primary malignant tumor of the liver (1%). It usually occurs in children and young people without risk factors for primary hepatocellular carcinoma (HCC). The etiopathogenesis is not clear.

R. A, 15-year-old black, male, presented with a history of two years of abdominal mass growth, of insidious onset, slow and painless. On objective examination he had a distended, asymmetrical abdomen with irregular hepatomegaly 10 cm below the costal border, smooth surface, hard consistency, painless. Analytically normal alpha-fetoprotein and negative for hepatitis B and C. Ultrasonography and CT scan of the abdomen revealed presence of a hyperechogenic and lobulated lesion, solid, with tumor aspect, in relation to left lobe of the liver. Cytology revealed carcinoma and immunohistochemistry expresses Hep-Parl, arginase, glutamine synthetase, CD68 and CK7. He was submitted to exploratory laparotomy for left lobe hepatectomy, where a multilobulated mass was identified in the left lobe of the liver with invasion of the falciform ligament, without criteria for hepatectomy and biopsy of the nodules was perfomed. He performed 6 cycles of chemotherapy with Adriamycin and until then with a stationary evolution. FHCC is a histological variant of classical HCC, characterized by presenting non-specific symptoms as in the case described. HepPar-1, CK7 and CD68 are used for diagnosis as well FISH. The basis of treatment is complete surgical resection. It has a better prognosis than typical HCC, due to the younger age of presentation and absence of cirrhosis. It calls our attention the long time of evolution, the age of the patient, the fact that it is the first case diagnosed for us, which is why we decided to share this case in order to have more international subsidies on the management of it.

***Keywords:*** Carcinoma, fibrolamellar, diagnostic

---

***PP-170***

## *Relationship between nutritional status and intestinal microbiota of school age children with autism spectrum disorder*

**María Paula Mendive Dubourdieu, Marcela Guerendiain, Gianfranco Grompone, Ileana Carzoglio**

*School Nutrition, University of the Republic, Uruguay*

***Background/Aims:*** The study of the role of intestinal microbiota in human health and disease has emerged in recent years. Some studies have shown the influence of gut microbiota on the nutritional status affecting metabolic pathways as well as the gut-brain axis. The current study was intended to understand the relationship of the nutritional status and bacterial composition of the gut microbiota in children with autism spectrum disorder (ASD).

***Materials and Methods:*** We included a total of 14 children aged 2 to 12 years, diagnosed with Autism Spectrum Disorder, from Montevideo, Uruguay. Bacterial microbiota composition was studied by PCR method. The samples were collected on two separate days (at least 12 hours apart) and the specimen was received within 7 days of the first collection. An anthropometric assessment, including weight, height, body mass index (BMI) and standard deviation score (SDS), was performed with Anthro and Anthro plus (WHO). Children were classified into normal weight and overweight, and data were statistically analyzed by SPSS program.

***Results:*** A total of 14,3% of the children were overweight while the others were normal weight. We found an inverse relationship between *Clostridium* and BMI (-0.660, p=0.010), and between *Enterococus* and SDS of weight for height (-0.847, p=0.016). Moreover, *Bifidobacterium* presented a positive correlation with weight (0.601, p=0.023) and weight for height (0.813, p=0.026). In bacterial composition, no significant differences were found between children with normal weight and overweight.

***Conclusion:*** Through the analysis of gut microbiome from faecal samples, we observed lower levels of bacteria of the phylum *Firmicutes* in children with autism spectrum disorder who have a greater body weight adjusted to their height. However, *Bifidobacterium*, belonging to the *Actinobacter* phylum, appeared in greater abundance in children when the weight increases. Several gut dysbiosis studies in ASD reported lower levels of *Firmicutes* with a relatively higher abundance of *Bacteroidetes* than neurotypical children. In our study we observed that this characteristic may vary according to the nutritional status of children.

***Keywords:*** Autism, gut microbiota, nutritional status

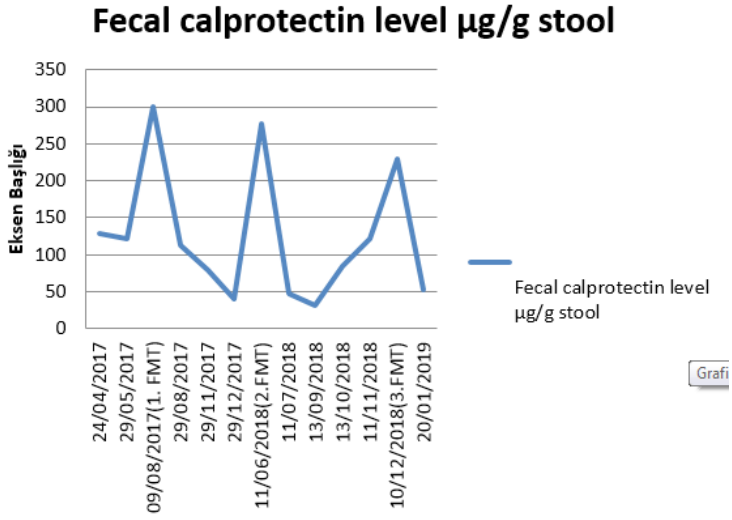
***PP-171***

## *The role of fecal microbiata transplantation in Crohn's disease when drug related multiple side effects occured*

**Ali Karataş, Tarkan Karakan, Mehmet Cindoruk, Selma Demirbaş Yüceldi, Güner Kılıç, Mustafa Ergin, Zeka Abbosov**

Deparment of Gastroenterology, Gazi University School of Medicine, Ankara, Turkey

We present a case of operated Crohn's disease in remission with recurrent fecal microbiota transplantation (FMT). 54 yr women have been followed up with Crohn's disease since 2012. In 2015, right hemicolectomy and distal ileal segment resection underwent steroid and azothiopurine treatment in the distal ileum unresponsive to stenosis and fistulas. When activated with diarrhea and abdominal pain, steroid was started again. However, when stress fractures occurred in the vertebrae and sacrum, and insufficient response to azotiopurine, adalimumab treatment was started.When the patient was in remission, in July 2016, vitiligo developed as a side effect of the drug. After adalimumab discontinuation, crohn remained in remission for 7-8 months, but then reactivated, colonoscopy showed linear ulcers in the anastomosis line, reaching the largest diameter of 1 cm. The patient refused any other medication because of side effects, in August 2017, the patient underwent FMT(donor was her daughter),when fecal calprotectin>300 µg/g stool. After one month, anastomotic ulcers disappeared completely. Fecal calprotectin gradually decreased to 40 µg/g in 2 months. Followed up without any medication, in June 2018, abdominal pain and diarrhea complaints relapsed and colonoscopy revealed anastomosis several linear ulcers and fecal calprotectin levels were found to be 277 µg/g. The patient underwent FMT again from her daughter in June 2018. Again within 2 months, fecal calprotectin levels decreased to 32 and clinical remission was achieved. Finally, in December 2018, on clinical activation, fecal calprotectin was 235, while FMT was performed from her daughter again. As a result, FMT can be used to provide clinical and mucosal and clinical remission in cases where medical treatments cannot be used because of the response effect, and when repeated, in case of loss of effect, repeated remission can be achieved.




***PP-172***

## *Higher prevalences of helicobacter pylori infection, intestinal metaplasia and atrophic gastritis among Afghan refugees in coastal blacksea region of Turkey*

**Ahmet Cumhur Dülger, Mustafa Yakarışık**

*Division of Gastroenterology, Giresun University School of Medicine, Giresun, Turkey*

***Background/Aims:*** The number of migrants and refugees continues to rise due to worsening geopolitical unrest in many parts of the world particularly in Afghanistan. Limited information regarding the magnitude of gastric premalignant lesions among Afghan refugees has been available. This study was conducted to estimate prevalence of Helicobacter pylori infection, intestinal metaplasia and atrophic gastritis among the refugees living in the coastal Blacksea region of Giresun Province, Turkey.

***Materials and Methods:*** A retrospectively collected university hospital data was used for the study, and a retrospective analysis was performed. Dyspeptic Afghan refugees (33 patients; mean age was 35.8±7.9 years, and 48.0% of patients were female) who underwent upper gastrointestinal tract endoscopy from 2018-2019 were included. Control group (151 patients; 84 female; the mean age was 79±8.9 years) was selected from age-matched dyspeptic patients who underwent upper GI tract endoscopy. Extracted data of demographics, laboratory characteristics, H. pylori status, atrophic gastritis and intestinal metaplasia were recorded. Characteristics were compared using Fisher's exact test and Student's t test when appropriate.

***Results:*** A total of 33 consecutive Afghan dyspeptic patients who underwent upper GIS tract endoscopy during the study period were analyzed, of which 4 patients had also chronic hepatitis B infection. While the rate of H.pylori infection in dyspeptic Turkish patients was 56.5%, the rate of H. Pylori infection in Afghan group was 58.7% ($p>0.005$). On the otherhand; the rate of intestinal metaplasia in Turkish subjects was 26%, and was 27% among Afghan refugees ($p>0.005$). Most strikingly, the rate of atrophic gastritis was 6% in Turkish subjects and was 25% among refugees ($p<0.001$). At total, 10% of refugees had hepatitis B positive.

***Conclusion:*** Interestingly, there were similar higher rates of H.pylori infection and intestinal metaplasia among naive Turkish citizens and Afghan refugees and the rates did not differ significantly. However, the higher rate of atrophic gastritis was observed among Afghan refugees. This phenomenon may have been related to low socioeconomic status and lack of money to get healthy foods. Every Afghan refugee should be screened by endoscopic procedures to detect intestinal metaplasia and atrophic gastritis.

***Keywords:*** Afghan refugees, atrophic gastritis, Turkey

---

***PP-173***

## *Demographic variables, clinical features and treatment choices of esophageal achalasia in a medical university hospital in Brazil*

**Alice Lunedo, Bianca Levandowski, Julia Carvalho Ramos, Jean Tafarel**

*Pontifical Catholic University of Paraná, Brazil*

***Background/Aims:*** Epidemiological knowledge on Esophageal Achalasia (EA) is scarce. The mean prevalence and incidence worldwide varies from 1 to 10 in 100.000 individuals annually and this motility disorder can occur at any age. The symptoms, such as dysphagia, chest pain and regurgitation, are unspecific and few epidemiological studies around the world have been devoted to know more about this disease. This work aims to evaluate the demographic and clinical features of EA in Curitiba, Brazil.

***Materials and Methods:*** We evaluated the database of Hospital Universitário Cajuru (Pontifical Catholic University of Paraná; School of Medicine), searching for all patients in whom achalasia (ICD-10 code: K22.0) was the principal diagnosis from 2007 to 2017. Data regarding the patient, such as gender, age on diagnosis, EA cause, symptoms and treatment choices over the study period were obtained.

***Results:*** There were 35 patients with EA been treated in the study period: 51.42% females and mean age 45.7 years. The main causes of EA were Chagas Disease (54.28%) and idiopathic (20%). Patients had symptoms during at least 4 years before diagnosis and the prevail: dysphagia (68,57%), weight loss (37,14%) and regurgitation (28.57%). Surgical treatment as

the unique technique prevail in 87,71% patients (Heller myotomy 82,85%), but endoscopic esophageal dilatation preceded surgical treatment was opted in 8,57%.

***Conclusion:*** At our center patients with EA tend to be females, with Chagas Disease and they wait 4 years before diagnosis, in spite of claiming for dysphagia and weight loss. This data are important to local health politics to aware general practioners to think about EA.

***Keywords:*** Epidemiology, esophageal achalasia, Chagas disease

---

***PP-174***

## *Torus hyperplasia mimicking a subepithelial tumor*

**Gökhan Aksakal[1], Mete Akın[2], Muhittin Yaprak[3], Gülsüm Özlem Elpek[4]**

*[1]Department of Gastroenterology Alaaddin Keykubat University Alanya Training and Research Hospital, Antalya, Turkey*
*[2]Department of Gastroenterology, Akdeniz University School of Medicine, Antalya, Turkey*
*[3]Department of General Surgery, Akdeniz University School of Medicine, Antalya, Turkey*
*[4]Department of Pathology, Akdeniz University School of Medicine, Antalya, Turkey*

Primary or idiopathic hypertrophy of the pyloric muscle in adults is called torus hyperplasia. It occurs as a result of circular muscle hypertrophy near the pylorus. Most of the lesions are difficult to differentiate from tumor, and confirmation of diagnosis is also difficult without a resection specimen. In this article, a patient with torus hyperplasia was reported who previously diagnosed as gastrointestinal stromal tumor (GIST) according to the computed tomography (CT) and endoscopic ultrasonography (EUS) findings. A 45-year-old female patient was admitted to gastroenterology clinic with abdominal pain and dyspeptic complaints for one month. Physical examination and laboratory findings were normal. In abdomen ultrasonography, thickening of the stomach wall and cholelithiasis were detected. Contrast-enhanced abdominal tomography showed that mass-like thickening of the antrum that could be a GIST. Upper gastrointestinal endoscopy showed mild bulging and submucosal blue-purple color change with normal overlying mucosa at the antrum that suggesting a subepithelial lesion (Figure 1). Radial EUS examination showed a 44x19 mm in diameter, lobulated, hypoechoic and heterogeneous subepithelial lesion which originated from the muscularis mucosa that compatible with GIST (Figure 2). Surgical teatment was planned. In operation, a tumoral mass that invaded the serosa in the prepiloric region was observed and distal gastrectomy was performed. Macroscopically 4.5x1.2x 3 cm in diameter, submucosal, cream-yellow, solid lesion was detected in the resection material. Histopathological examination revealed marked hypertrophy of the distal circular pyloric muscle which positive staining with SMA and Desmin but not stained with other markers. Finally, lesion was diagnosed as focal pyloric hyperplasia. Torus hyperplasia is a rare condition caused by circulatory muscle hypertrophy of the pylorus. Its ethiopathogenesis is unclear. It was first reported in 1946 by Andersen et al. To date, few cases have been reported in the literature and nonspecific complaints have been observed. It can mimics GIST, spindle cell carcinoma and malignancy with radiological and endoscopic findings. Diagnosis is not possible with mucosal biopsies and resection is usually required for diagnosis.

***Keywords:*** Torus hyperplasia, gastrointestinal stromal tumor, surgery

***PP-175***

## *Upper gastrointestinal endoscopic findings and prevalence of Helicobacter pylori infection among dyspeptic patients in Western Nepal*

**Bikash Adhikari**

*Gandaki Medical College, Nepal*

***Background/Aims:*** Dyspepsia is one of the commonest indications for upper gastrointestinal endoscopy. Helicobacter pylori (H. pylori) infection is associated with various upper gastrointestinal pathologies. We aim to assess the endoscopic findings and the H. pylori infection prevalence in patients with dyspepsia.

***Materials and Methods:*** A prospective observational study was conducted to assess the endoscopic findings and the H. pylori status in three hundred and twenty three consecutive dyspeptic patients between December 2013 and July2014 at Gandaki Medical College Hospital, Pokhara, a tertiary referral center in Western Nepal. Dyspeptic patient underwent upper gastrointestinal endoscopy and the rapid urease test was performed.

***Results:*** The most common endoscopic findings included Gastritis(40.2%), duodenitis(12.1%), Gastroesophageal reflux disease(GERD)(11.5%),duodenal ulcer(6.8%), gastric ulcer(5.9%),gastric carcinoma(2.2%) whereas, 14.9% had normal endoscopic findings. H.pylori infection was found in 56.7% (n=183).Duodenal and gastric ulcers were statistically significantly associated with H.pylori infection. ($p<0.001$).Gastritis was also statistically significantly associated with H.pylori. There was no association found between GERD and H.pylori infection ($p>0.05$).

***Conclusion:*** Gastritis, GERD, gastric ulcer, duodenal ulcer are the leading causes of dyspepsia. H pylori infection is significantly present in dyspeptic patients. H pylori should be eradicated in patient with duodenal ulcer and gastric ulcer if other confirmatory tests are not available

***Keywords:*** Dyspepsia, upper gastrointestinal endoscopy, Helicobacter pylori, Nepal

---

***PP-176***

## *Utility of endoscopic duodenal biopsies in patients investigated for malabsorption: A South African national health laboratory services database study*

**Sabelo Hlatshwayo, Sandie Thomson, Mashiko Setshedi**

*University of Cape Town, Cape Town, South Africa*

***Background/Aims:*** Endoscopic duodenal biopsies (EDB) remain a valuable diagnostic tool in patients presenting with malabsorption. Our aim was to determine the yield of EDB and document the spectrum of conditions in those investigated for malabsorption in South Africa between 2004 and 2016.

***Materials and Methods:*** Histology data of patients who had EDB for malabsorption or suspicion of coeliac disease that was analysed at the National Health Laboratory Services (NHLS) were evaluated. Excluded were; malignancies, inflammatory bowel disease, peptic ulcer disease, prior surgery and absence malabsorption features or suspicion of coeliac. Data extracted for: indication, comorbidities, predominant findings and histologic diagnosis. EDB indication included: chronic diarrhoea, iron deficiency anaemia, suspected coeliac disease, weight loss, vitamin deficiencies and failure to thrive.

***Results:*** Over 12 years, 3253 patients (2082 F:1171M; 43.5±19.3 years) had EDB for malabsorption. Indications were; Chronic diarrhoea 46%, Iron deficiency anaemia 22%, unexplained weight loss 7%, Vitamin B12 and folate deficiencies 5% and 0.6% respectively. 82% of biopsies were non-diagnostic: normal 55%, non-specific duodenitis 17% and isolated epithelial

lymphocytosis in 10%. Infectious causes were identified in 9% (296/3253) of which 51% were females, with a mean age of 31.5 years (SD±15.7). Infections identified included: cryptosporidium 92, isospora 59, CMV 40, tuberculosis 32, other mycobacteria 29, giardia 25 and others 59. HIV documented in 185 (62%), organ transplantation 10 (3%) and 2 (0.6%) were on immunosuppressive medication for autoimmune conditions. 113 (3.5%) patients met our criteria for coeliac disease, 68% of whom were females and the mean age was 36.3 years (SD±21.4). 10% of these patients had associated IDDM.

***Conclusion:*** Opportunistic infections were the predominant cause of malabsorption in this cohort, followed by coeliac disease. HIV infection was a predictor of an infectious cause whilst type 1 diabetes was found in 10% of coeliac patients.

***Keywords:*** Duodenal biopsy, coeliac disease, malabsorption

---

***PP-177***

## *Ultrasound evaluation of visceral fat and posture for stratification patients with metabolic syndrome*

**Rostyslav Bubnov, Mykola Spivak**

*Zabolotny Institute of Microbiology and Virology, Nas of Ukraine, Kyiv, Ukraine*

***Background/Aims:*** Meeting definition of metabolic syndrome (MetS) requires detection of central obesity (increasing waist circumference, WC) plus any two of the other four factors (hyperglycemia, dyslipidemia, cardiovascular disease, hypertension). Multiparameter ultrasound (US) can provide accurate information on every MetS sign. The aim was to evaluate the relevance of measurement of visceral fat and posture and detecting metabolic health markers using US for diagnosis MetS and stratification overweight patients.

***Materials and Methods:*** We included 120 overweight subjects (age 24-76 years; 65 females), BMI>30, waist circumference (WC)>110. 30 healthy volunteers were controls. All patients underwent general clinical, lab tests; abdominal US using convex 2-7 MHz probes was carried out to all patients. We determined fat accumulations measuring VF and subcutaneous (SF) fat thickness and measured postural stability parameters (abdominal wall, diaphragm and pelvic floor motility); cardia structure (GERD signs) using dynamic US.

***Results:*** SF was 33±7 mm, VF was 26±6 mm ($p<0.05$ vs controls), poorly correlated with WC, VF correlated with liver size and SWE ($r>0.85$). Higher incidence of hypertension (in 62%); hypercholesterolemia (in 45%); hyperuricemia (in 28%); hyperglycemia (in 32%); nephropathy (in 37%), portal hypertension (in 32%) was in obese individuals ($p<0.05$). In 83 patients posture parameter were altered (organ ptosis, weakness of abdominal wall, pelvic floor hypermobility, diaphragm elevation and motion restriction); microbiota alteration was in 86 patients (78 patients demonstrated cholestasis). Another US patterns were detected, including colon hyperpneumatosis, hypomotility, signs of duodenogastral reflux, GERD signs, portal hypertension, congestion, microsplenia, abdominal aorta atherosclerosis, aneurisms.

***Conclusion:*** Multiparameter abdominal US markers including evaluation of visceral fat and posture are robust and accessible markers to measure metabolic disease in obese patients, can be more reliable vs anthropometric data to define MetS.

***Keywords:*** Metabolic syndrome, ultrasound, visceral fat

---

***PP-178***

## *Itacitinib, an oral JAK1 selective inhibitor, ameliorates spontaneous colitis in the preclinical IL-10 knockout mouse model*

**Monika Scuron, Brittany Fay, Melissa Parker, Julian Oliver, Eduardo Huarte, Wenqing Yao, Paul Smith**

*Incyte*

***Background/Aims:*** The interleukin-10 (IL-10) knockout (KO) mouse model mirrors the multifactorial nature of inflammatory bowel disease (IBD), such as ulcerative colitis and Crohns disease. Colitis in IL-10 KO mice results from an aberrant response of CD4+T helper 1-like T cells and an excessive secretion of the proinflammatory cytokines that signal through the Janus kinase/signal transducers and activators of transcription (JAK/STAT) pathway. Itacitinib represents a novel, potent, and selective JAK1 inhibitor that is currently being investigated in a clinical trial for moderate-to-severe ulcerative colitis (NCT03627052). Aims: To evaluate itacitinib efficacy as a monotherapy in the IL-10 KO mouse model of IBD.

***Materials and Methods:*** IL-10 KO mice, BALB/cAnNTac-Il10em7Tac, spontaneously develop colitis. Body weight, stool consistency, fecal occult blood and rectal bleeding were scored. The incidence of rectal prolapse was recorded. Additional readouts included colon weight to length ratio and histological evaluation.

***Results:*** Itacitinib is a potent JAK1 inhibitor with 22 to >500-fold selectivity for JAK2, JAK3 and TYK2. Oral twice daily itacitinib at 30 mg/kg significantly ($p<0.001$) delayed colitis onset and modulated disease-associated weight loss. Cumulative clinical disease score was significantly ($p<0.0001$) reduced in the itacitinib treated animals as compared to vehicle control. Incidence of rectal prolapse was also significantly ($p<0.01$) lower. Itacitinib administration resulted in significant ($p<0.01$) reduction in colon structural pathology. Lymphocytic infiltration and transmural inflammation were also significantly ($p<0.01$) decreased in the itacitinib treated mice versus vehicle control.

***Conclusion:*** Itacitinib is an oral small molecule selective JAK1 inhibitor. In a spontaneous colitis model, total disease burden was significantly reduced in the itacitinib treated animals as compared to vehicle controls. The data suggest that itacitinib may have potential as a therapeutic agent for the treatment of IBD.

***Keywords:*** Colitis, JAK1 inhibitor, IL-10 knockout

***PP-179***

## *The role of trauma, basic affective features, and the ability to understand and express emotions in irritable bowel syndrome*

**Selma Çoban[1], Zeynep Çatay[1], Özdal Ersoy[2]**

*[1]Clinical Psychologist, Private Office, İstanbul, Turkey*
*[2]Acıbadem University Medical Faculty, Atakent Hospital, İstanbul, Turkey*

***Background/Aims:*** The aim of the current study was to explore the role of trauma, basic affective features, and the ability to understand and express emotions in irritable bowel syndrome.

***Materials and Methods:*** The IBS group was gathered through convince sampling. In the IBS group (total of 71), 48 of the participants were contacted via online IBS support platforms, 12 of the participants were reached via the gastroenterologists at the private hospitals and 11 of the participants were contacted via personal contacts (snowballing). The control group (total of 86); 34 out of the participants were employees of a private company and they were contacted via the human resources of their company. 10 out of the participants were recruited via online social networks and 42 out of the participants were contacted through person contacts via snowballing.15 of the participants from the control group with high education were randomly chosen and removed in order to equalize the two groups in terms of education level. The final number of the control groups consisted of 71 participants. The survey packages included Traumatic Events Checklist (TEC), Toronto Alexithymia Scale (TAS-20) and Affective Neuroscience Personality Scales (ANPS), Demographic Information Form and Consent Form.

***Results:*** The results revealed that among IBS patients the most prevalent type of traumatic experience was emotional neglect. This was followed by emotional abuse, family problems, physical abuse, and medical trauma, sexual abuse, having a loss and war trauma. Most of the traumatic events were reported to have occurred in childhood in both the IBS group and the

control group. It was found that IBS had higher scores in alexithymia than the control group. IBS patients reported higher scores in fear and sadness and lower scores in playfulness. The most significant difference among the two groups was seen in the feeling of sadness. In additional analyses, only emotional neglect, sadness and playfulness were found to be the variables that contributed to predicting IBS status

***Conclusion:*** This is the first comprehensive study to understand of the role of trauma, basic affective features and ability to understand and express emotions as important factors in the development of irritable bowel syndrome in literature. Traumatic experiences especially emotional neglect seem to be a significant factor that is related to developing IBS. The protective impact of playfulness is another important finding of this study.

***Keywords:*** Psychosomatics, somatization, irritable bowel syndrome

---

***PP-180***

## *Bifidobacterium breve BIF195 protects against enteropathy caused by acetylsalicylic acid in humans*

**Brynjulf Mortensen[1], Clodagh Murphy[2], John O'grady[2], Mary Lucey[4], Gafer Elsafi[3], Lillian Barry[4], Vibeke Westphal[1], Anja Wellejus[1], Oksana Lukjancenko[5], Aron Eklund[5], Henrik Bjørn Nielsen[5], Adam Baker[1], Anders Damholt[1], Johan Van Hylckama Vlieg[1], Fergus Shanahan[2], Martin Buckley[4]**

*[1]Chr Hansen A/s, Denmark*
*[2]Apc Microbiome, Ireland*
*[3]University College Cork, Ireland*
*[4]Centre For Gastroenterology, Mercy University Hospital, Cork, Ireland*
*[5]Clinical Microbiomics A/s, Denmark*

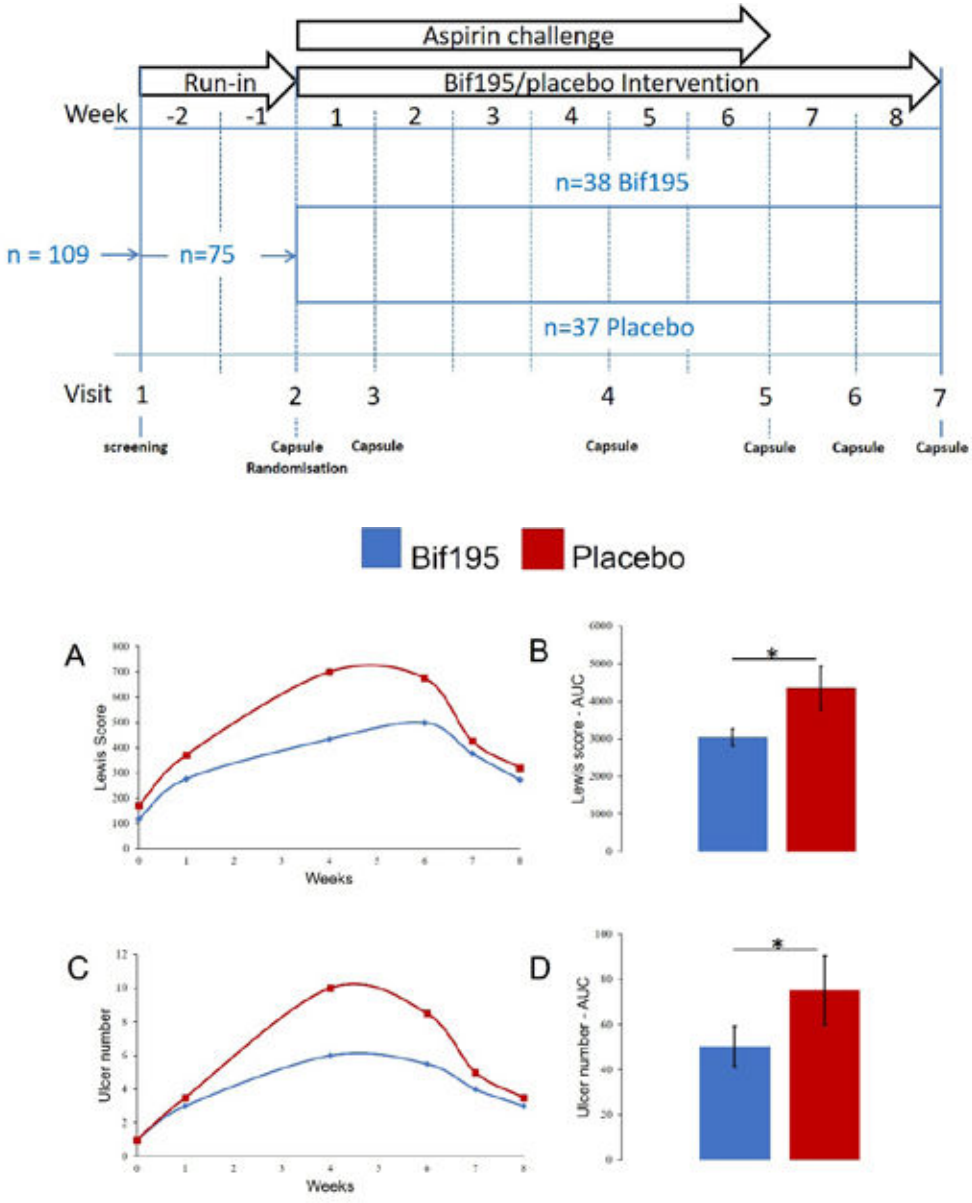
***Background/Aims:*** Enteropathy and small-intestinal ulcers are common side effects of non-steroidal anti-inflammatory drugs (NSAID) such as Acetylsalicylic Acid (ASA). There is a clear unmet need for safe, cytoprotective strategies to reduce this risk. Experimental and observational data suggest that specific Bifidobacteria might be cytoprotective, but compelling clinical evidence is lacking. Therefore, we aimed to assess clinical efficacy of daily, oral intake of a specific Bifidobacterium strain in a human ASA challenge model.

***Materials and Methods:*** We performed a single-site, double-blind, parallel-group, proof of concept analysis of 75 heathy volunteers given ASA (300 mg) daily for 6 weeks. The participants were randomly assigned (1:1) to groups given oral capsules of *Bifidobacterium breve* (Bif195; ≥ $5*10^{10}$ colony forming units) or placebo, daily for 8 weeks. Small-intestinal damage was analyzed by serial VCE at 6 visits. The area under the curve (AUC) for intestinal damage (Lewis score) and the AUC value for ulcers were the primary and first-ranked secondary endpoint of the trial, respectively.

***Results:*** The AUC Lewis score was significantly (p=0.0376) lower in the Bif195 arm as compared to placebo (3040±1340 arbitrary units (au). in the Bif195 arm vs 4351±3195 au. in the placebo arm). The AUC ulcer number was also significantly (p=0.0258) lower in the Bif195 arm as compared to placebo (50.4±53.1 in the Bif195 arm vs 75.2±85.3 in the placebo arm).

***Conclusion:*** Daily, oral intake of *Bifidobacterium breve* Bif195 is safe and confers clinically significant and objectively verifiable reduced risk of small-intestinal enteropathy caused by Acetylsalicylic Acid in humans.

***Keywords:*** Aspirin, microbiota, ulceration, cytoprotection




***PP-181***

## *Consumption of bifidobacterium breve BIF195 is safe and does not counteract clinical efficacy of acetylsalicylic acid*

**Brynjulf Mortensen[1], Vibeke Westphal[1], Anja Wellejus[1], Adam Baker[1], Natalia Jimenez[1], Anders Damholt[1], Johan Van Hylckama Vlieg[1], Fergus Shanahan[2], Martin Buckley[3]**

*[1]Chr Hansen A/s, Denmark*
*[2]Apc Microbiome, Ireland*
*[3]Centre For Gastroenterology, Mercy University Hospital, Cork, Ireland*

***Background/Aims:*** The bacterial strain Bif195 protects against enteropathy caused by low-dose Acetylsalicylic Acid (ASA) intake. However, the potential of Bif195 as a probiotic for chronic low-dose ASA users requires a convincing safety profile and data proving that the clinical benefit of ASA is not counteracted by Bif195. Therefore, we aimed to assess a broad range of safety parameters in humans co-treated with ASA and Bif195.

***Materials and Methods:*** We performed a clinical trial with 75 heathy volunteers co-treated with 300 mg ASA daily (6 weeks) and oral capsules of Bif195; ≥ $5*10^{10}$ colony forming units or placebo, daily for 8 weeks. We registered adverse events and performed blood sampling throughout the trial. In blood, we measured a broad panel of cytokines and safety parameters as well as prostaglandin and thromboxane concentrations as an indirect measure of ASA clinical efficacy. The area under the curve (AUC) for all concentrations were calculated and evaluated by statistics.

***Results:*** In total, 32 adverse events were registered from 22 different subjects (12 in Bif195 and 20 in placebo arm) during the trial. Whereas 10 AEs were assumed related to ASA intake, none were related to Bif195 intake, as assessed by the investigators. All biomarkers measured in blood remained within normal range throughout the trial and AUCs did not differ between the Bif195 and the placebo arm. Serum prostaglandin and thromboxane concentrations declined as expected during ASA intake, but were unaffected by the Bif195 intervention.

***Conclusion:*** Daily, oral intake of Bif195 is safe and does not change the concentrations of a broad panel of blood safety biomarkers in healthy humans taking 300 mg of ASA daily. Furthermore, Bif195 does not seem to counteract the clinical benefits of ASA, further highlighting its potential as a probiotic among chronic low-dose ASA users.

***Keywords:*** Aspirin, cytoprotection, safety, microbiome

---

***PP-182***

## *Selection of a novel bifidobacterium for reducing the risk of acetylsalicylic acid-induced small intestinal damage*

**Anja Wellejus, Thomas Leser, Jeanne Olsen, Stefan Rehdin, Natalia Jimenez, Anita Wichmann Gustafsson, Adam Baker**

*Chr Hansen A/s, Denmark*

***Background/Aims:*** Chronic use of acetylsalicylic acid has been associated with development of erosions, ulcers and bleeding in the stomach and small intestine. In addition to inhibiting cyclooxygenase enzymes, which results in decreased levels of mucosal prostaglandins, administration of acetylsalicylic acid also disrupts phospholipid layers and uncouples oxidative phosphorylation. A combination of these processes increases intestinal permeability, triggers inflammatory pathways and ultimately leads to apoptosis, mucosal erosions and ulcers. Recently, we have shown that *Bifidobacterium breve* Bif195 can reduce the risk of acetylsalicylic acid-induced small intestinal damage in adult volunteers. In this presentation we show how Bif195 was identified through comprehensive screening of a large collection of bifidobacteria and evaluation for effects on intestinal permeability and inflammation in a dextran sodium sulfate (DSS) colitis model in rats.

***Materials and Methods:*** In this study, we screened approximately 200 bifidobacteria in *in vitro* assays for acid and bile tolerance, improvement in intestinal barrier function and immune regulation. Top-performing strains were studied in a DSS colitis model in rats. The rats were pre-dosed with bacteria for 14 days prior to colitis induction by 3% DSS in the drinking water for 9 days. During the experiment, the disease activity score (weight loss, fecal bleeding and stool consistency), intestinal barrier function, and colonic macroscopic and microscopic scoring were evaluated.

***Results:*** The bifidobacteria showed very diverse functionalities in the *in vitro* assays and 5 bifidobacteria were selected for further testing in animals based on distinct *in vitro* characteristics. *Bifidobacterium breve* Bif195 inhibited body weight loss and fecal bleeding and improved stool consistency, intestinal permeability and macro-and microscopic scoring compared to the DSS control group.

***Conclusion:*** *Bifidobacterium breve* Bif195 increased barrier function and induced an anti-inflammatory profile *in vitro*. *In vivo*, Bif195 attenuated DSS-induced intestinal permeability, tissue damage and inflammation in rats.

***Keywords:*** Aspirin, small intestinal damage, Bifidobacterium breve

***PP-183***

## *Efficacy of a 7-strain synbiotic mixture in combination with oral antibiotic treatment in preventing antibiotic-associated diarrhea (AAD): Prodeggio study*

**Amaya Romeo[1], Coro Barreiro[2], Mónica Miegimolle[3], Juan Cadafalch[4], Belén Millán[5], Sandra Gallego[6], Javier Suárez-almarza[7], Concepción Nieto[7]**

*[1]Clínica Dental Dra Tarreo, Zaragoza, Spain*
*[2]Clínica Dra Coro Guridi, Zaragoza, Spain*
*[3]Clínica Dental Mocedent Slp, Madrid, Spain*
*[4]Clínica Dental Dr. Cadafalch, Terrassa, Spain*
*[5]Clínica Dental Belén Millán, Madrid, Spain*
*[6]Clínica Dental Gallego, Valencia, Spain*
*[7]Itf Research, Madrid, Spain*

***Background/Aims:*** Antibiotic-associated diarrhea (AAD) is a common iatrogenic effect occurring in patients receiving broad spectrum antibiotic treatment. This problem, although generally self-limited, often leads to treatment discontinuation which may compromise efficacy and contribute to the appearance of antibiotic resistance. The aim of this study was to determine the preventive effect of a 7-strain synbiotic mixture including Lactobacillus rhamnosus GG (LGG) and fructooligosaccharides (FOS) in reducing the incidence of episodes of AAD.

***Materials and Methods:*** Multicenter, prospective, double blinded, placebo-controlled clinical study. 147 patients aged 18-65 years were randomly assigned to the synbiotic (n=74) or the placebo (n=73), administered daily and at the same start date of amoxicillin/clavulanic acid 875/125 mg/8h for 7 days for odontological prescription. Patients recorded daily bowel movement consistency, frequency, symptoms, adverse events and more. Diarrhea was considered as the passing of three or more loose or liquid stools (type 5-7 on the Bristol chart) per day, as defined by WHO. Variables were analyzed by descriptive and analytical statistics (Fisher's exact test).

***Results:*** A significant reduction in the incidence of diarrhea was evidenced in patients that received the symbiotic compared to those that received the placebo ($p<0.0001$). By day 3 6.8% of patients that received the synbiotic vs 16.4% that received the placebo had presented diarrhea, increasing to 8.1% vs 19.2% by day 4, and 10.8% vs 20.5% by day 7. The positive effect of the synbiotic was particularly evident for the consistency of stools, where patients that received the synbiotic presented a significant reduction in the number of loose or liquid stools compared to those that received the placebo (39 vs 54 at day 3, $p=0.05$; 31 vs 57 at day 4, $p<0.001$; and 27 vs 33 at day 7, $p=0.03$). Greater number of diarrhea episodes and with a longer duration, and higher number of days with diarrhea were evidenced in the placebo group than in the group that received the synbiotic.

***Conclusion:*** Concomitant treatment of a 7-strain synbiotic mixture including LGG and FOS resulted in a significant reduction of AAD and enabled to reduce by half the number of subjects with diarrhea. This clinical benefit was present from the very first days and was maintained throughout treatment. The co-administration of this synbiotic to adults receiving amoxicillin/clavulanic demonstrated a preventative effect over AAD.

***Keywords:*** Antibiotics, diarrhea, probiotics, synbiotics

***PP-184***

## *Amebic colitis causing massive rectal bleeding and deep anemia: Case report*

**Nimet Yılmaz**

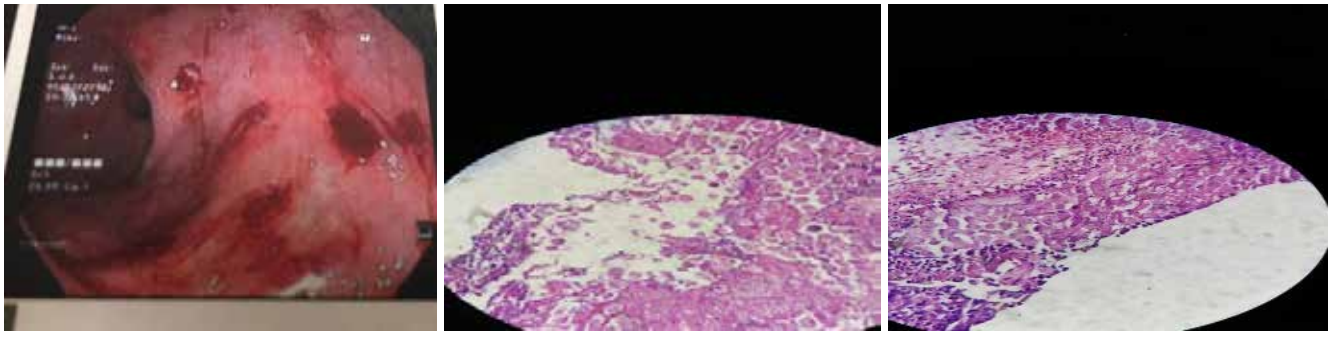
*Department of Internal Medicine, Division of Gastroenterology, University of Sanko, School of Medicine, Gaziantep, Turkey*

***Introduction:*** Massive rectal bleeding is an emergency that we generally encounter in the emergency department and inflammatory, diverticular or vascular reasons are frequently seen in its etiology. It should also be noted that infective causes may also cause massive bleeding. Entamoeba histolytica infection is seen worldwide, but it is more common in areas with insufficient hygiene and nutrition. We aimed to present a massive hematochezia case in which the amebic colitis was diagnosed by histopathological examination.

***Case:*** A 16-year-old male patient was admitted to the emergency department with complaint of rectal bleeding. The patient had complaints of abdominal pain and bloody mucus stool for about two months but her complaints increased over the last three days and he was pale. In his physical examination, his general condition was moderate, he had abdomen sensitivity and had no defense and rebound. His blood pressure was 100/60 mmHg and pulse was 114/min. There was bloody infection in the rectal touch. In the laboratory tests, the white blood cell count was 17000/mm3, hemoglobin was 7.5 g/dL, and hematocrit was 25.6%. No sign of bleeding was found in the gastroduodenoscopy. In the colonoscopy which was performed under emergency conditions, there was fresh blood appearance in the lumen, and actively bleeding ulcers of millimetric size were seen in the rectum after washing and a biopsy was conducted (Figure 1). Approximately 150 cm was progressed in the lumen and no mucosal pathology was seen outside the rectum. In the microscopic examination performed with hematoxylin and eosin stain on the biopsy taken from the ulcers in the rectum, single forms and occasionally colonies of ameba trophozoites were observed in the tissue (Figure 2a, 2b). The patient was diagnosed with amebiasis and prescribed with intravenous metronidazole treatment and erythrocyte suspension for anemia. He was discharged after clinical recovery.

***Conclusion:*** Entamoeba histolytica infection may vary from asymptomatic carriage to invasive colitis or fulminant colitis with a high mortality rate. Since the clinic of entamoeba histolytica infection may be severe in children, pregnant women, malnourished individuals and patients receiving immunosuppressive therapy such corticosteroids, the diagnosis should be made without delay, treatment should be given effectively and if necessary patients should be hospitalized in these high-risk groups.

***Keywords:*** Rectal bleeding, anemia, entamoeba histolytica



***PP-185***

## *Expression of the transforming factor β1 and CD68+ in patients with autoimmune liver diseases*

**Ekaterina Pazenko[1], Karina Raikhelson[1], Vadim Karev[2], Elina Kondrashina[1], Nataliya Marchenko[1], Andrey Baranovskiy[1], Ludmila Palgova[1]**

*[1]Scientific and Educational Center of Gastroenterology and Hepatology Saint-Petersburg University, Russia*
*[2]Pediatric Research and Clinical Center for Infectious Diseases, Russia*

***Background/Aims:*** Transforming growth factor-beta1 (TGFb1) is key event in pathogenesis of hepatic fibrosis. High levels of TGF-b1 have been described in different acute and chronic liver diseases. However, its role in pathogenesis of autoimmune liver diseases (AiLD) and hepatitis C virus (HCV) remains unclear. To evaluate expression of mononuclear phagocytes (CD68) and TGF-b1 in hepatic tissue of patients with AiLD, HCV.

***Materials and Methods:*** We processed liver biopsies for immunohistochemical cell characterization from 49 patients (15—primary biliary cholangitis (PBC), 12—autoimmune hepatitis (AIH), 17 —primary sclerosing cholangitis (PSC), 10—HCV). Expression of TGFb1 was quantified as percent of positive cells rather CD68 as a whole. Patients with cirrhosis (6—AIH, 5—PBC) were also included in study with separate into account the results in cirrhosis and fibrosis stages. Activity scores were similar in all groups (METAVIR A2-A3).

***Results:*** TGF-b1 expression in CD68 + nonparenchymal liver cells was significantly higher in patients with PSC compared with other AiLD (PBC p[0.05, AIG p=0.0002) and HCV (p=0.0001). TGF-b1 expression in patients with HCV was significantly higher compared with PBC (p=0.016). TGF-b1 expression in CD68 + was higher in patients with HCV and cirrhosis compared with non-cirrhotic patients (p=0.04). Increased absolute count of CD68 + cells was higher in patients with HCV compared with AiLD (AIG p=0.002; PBC p=0.007; PSC p<0.05, respectively).

***Conclusion:*** Increased expression of TGFb1 in AIH and PBC patients with cirrhosis confirms it's role in fibrogenesis in AiLD. Increased TGF-b1 in PSC patients suggesting the predominance of fibrotic process in the pathogenesis of PSC.

***Keywords:*** Autoimmune liver diseases, hepatitis C virus

---

***PP-186***

## *A case that developed tumor at the stoma line after percutaneous endoscopic gastrostomy*

**Ali Şenkaya, Ferit Çelik, Nalan Gülşen Ünal, Başak Doğanavşargil, Ömer Özütemiz**

Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey

***Introduction:*** Percutaneous Endoscopic Gastrostomy (PEG) is a method developed by Gauder-Ponsky in 1980 to provide enteral feeding for patients oral feeding was impossible. Although PEG is a minimal invasive, easily applicable method there are some complications. In literature following complications and ratios have been reported; aspiration pneumonia between 1 through 30%; PEG site infection/cellulitis 5 through 38%; necrotizing soft tissue infection<2%; peritonitis/pneumoperitoneum 40%; displacement of PEG tube 4-7.8%; hemorrhage 2.3-3.3%; gastrocutaneous fistula 2-3%; leakage at PEG site 1 – 2%; ileus 3%; perforation in colon and intestine<3%; left lobe injury at liver<3%, PEG tube blockage 35%; pain at PEG site 0.3-2.4%. Here we present our subject diagnosed with carcinoma with squamous cell at esophagus and then developed carcinoma with squamous cell at the abdominal wall after PEG.

***Case:*** This 55-year old female patient had been received the diagnosis of Plummer-Vinson Syndrome in 2012 when stricture was observed at esophagus on gastroscopy carried out due to dysphagia and iron insufficiency anemia detected in laboratory. Intermittent endoscopic bougie dilatation was applied because of dysphasia. On the gastroscopy performed

on March 2018 for the patient that had increased dysphagic complaints, an irregular granular area that forms stricture at the upper esophagus sphincter level was observed. As a result of biopsy, regenerative alterations were observed and new sampling suggested in terms of dysplasia. Patient did not attend follow up regularly. On September 2018 performed a magnetic resonans imaging showed that; a lesion with malignant signal characteristics showing the serosal overflow from the lumen of the esophagus at the level of the thoracic entry, going through the anterior trachea to the right of the midline of the neck, right posterior to the thyroid lobe and left vocal cord. Esophageal biopsy was unavailable due to stenosis at esophagus. At the result of excision-biopsy obtained from larynx, carcinoma with squamous cell was detected. Since patient's dyspagia continued and she developed malnutrition we performed PEG on October 2018 using Gauderer-Ponsky "pull up" technique. Tracheostomy was performed to ensure airway stability. Patient received 33 sessions of radiotherapy. In May 2019, patient presented with bleeding and purulent discharge at the PEG site. At the physical examination a granulated, fragile, vegetating, bleeding tissue was observed at the PEG entrance and punch biopsy was taken (Figure 1). The result of punch biopsy; "In present sample areas with suspected carcinoma with squamous cell were examined but not stomach mucosa. No comment is being made on sample's cutaneous and gastrointestinal origin. It was reported as carcinoma with squamous cell" (Figure 2).

***Conclusion:*** There are many theories related to how cancer metastasizes to PEG's stoma. Tumor implantation, or tumor seeding, is believed to occur because of multiple, or traumatic, passages of instruments, as well as the PEG tube itself, through the oral cavity. During passes through the esophageal lumen, cancer cells can adhere to the instruments, the internal bumper, or the PEG tube and can translocate to the PEG incision site. Other theories of tumor implantation include hematogenous and lymphatic spread as the result of surgical stress, increasing tumor metastasis because of high concentrations of circulation cortisol levels. This process can induce morphologic changes in the capillary lumen, allowing tumor cells to implant at the incision site through the increased circulation, and the environment of the PEG site. We believe that stomach seeding risk will be eliminated as long as "Pull up" technique is used. In literature PEG site tumor seeding was reported 0.1% as complication. As an alternative, in patients with upper gastrointestinal cancer gastrostomy can be placed using laparoscopy or other surgical methods. Besides, utilization of povidon-iodine which is a microbicidal agent with wide-spectrum may reduce the risk for transport of tumor cell to stoma line with endoscope and PEG material that touch timorous tissue. Further studies are required to determine protective methods and to find out whether this complication has any relationship with the technique used.

**Figure 1.** PEG Site
Granulated, fragile, vegetating, bleeding tissue

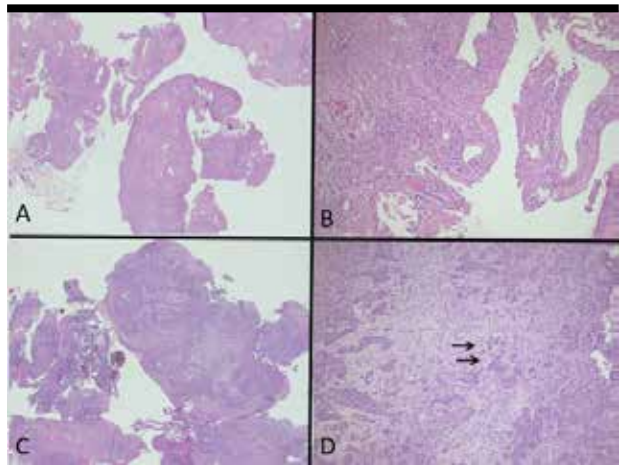



**Figure 2. A-D.** Pathology
A-B: Squamous cell carcinoma in hypopharynx-larynx (Haematoxylin&Eosin, x2.5 and x10, respectively)
C-D: Squamous cell carcinoma in PEG biopsy (Haematoxylin&Eosin, x2.5 and x10, respectively). Note the infiltrative areas in high power field (arrows)

***PP-187***

# *A comparison between the efficacy of high dose esomeprazole and amoxicillin dual therapy and standard clarithromycin-based triple therapy on Helicobacter pylori eradication in patients with dyspepsia*

**Marjan Mokhtare[1], Sara Farahvash[2], Mohammad Jafar Farahvash[3], Mohammad Reza Pahlevan Sabbagh[4], Behdad Behnam[5]**

*[1]Department of Gastroenterology, Colorectal Research Center, Iran University of Medical Sciences, Tehran, Iran*
*[2]Iran University of Medical Sciences, Tehran, Iran*
*[3]Department of Gastroenterology, Tehran University of Medical Sciences, Tehran, Iran*
*[4]Gasteroentrologist, Tehran, Iran*
*[5]Resident of Internal Medicine, Iran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Standard triple therapy is considered as an acceptable regimen for *helicobacter pylori* (*H. pylori)* treatment. However eradication rate of triple therapy is decreasing regarding high antimicrobial resistance rate during recent years. In vitro studies demonstrated that esomeprazole has an anti-*H.pylori* role. The aim of this study was to compare dual therapy with high dose esomeprazole and amoxicillin versus standard triple therapy regarding side effects and success rate of eradication.

***Materials and Methods:*** This is a randomized clinical trial and 91 adult naïve *H.pylori* infected patients with complaint of dyspepsia, normal upper endoscopy and normal histopathology exam in biopsy, were enrolled. Group A received amoxicillin 1000 mg bid, clarithromycin 500 mg bid and esomeprazole 40 mg bid for 10 days. Group B received amoxicillin 1000 mg tid and esomeprazole 40 mg three tid for 10 days. The patient's adherence and drug adverse effects were recorded 2 weeks after starting treatment. $C^{14}$urea breathing test (UBT) was performed 6 weeks after treatment to assess *H.pylori* eradication. The data was analyzed by SPSS version 21.

***Results:*** Finally, 86 patients completed the study (42 and 44 patients in group A and B, respectively). The mean age of our patients was 42.8±11.6 years and 50% of them were male. There was no significant difference regarding basic demographic data and patient's adherence to the treatment between the groups. Drug adverse effects were significantly lower in group B compared to group A (20 versus 8: p=0.004). The most common adverse effect was nausea in 11/86 (12.7%) patients. The overall calculated eradication rate for *H.pylori* was 80.95% and 84.09% in group A and B, respectively (p=0.34).

***Conclusion:*** Ten days dual therapy with high dose esomeprazole and amoxicillin is a safe, tolerable and effective regimen for first line treatment of *H.pylori* in patients with dyspepsia. It should be considered as an alternative regimen instead of standard triple therapy.

***Keywords:*** Helicobacter pylori, dyspepsia, standard triple therapy, treatment, dual therapy

***Table 1.*** Overall eradication rate in treatment groups.

| | Group A | | Group B | | |
|---|---|---|---|---|---|
| | Patients | Eradication rate (%)-CI 95% | Patients | Eradication rate (%)-CI 95% | P-value |
| ITT Analysis | 34/42 | 80.95% (68.57-93.34) | 37/44 | 84.09% (72.84-95.34) | 0.34 |

***Table 2***. Adverse drug reactions in each group

| | Group A | Group B | Total | P value |
|---|---|---|---|---|
| Anorexia | 2 (4.76%) | 0 (0%) | 2 (2.32%) | 0.14 |
| Abdominal pain | 1 (2.38%) | 1 (2.27%) | 2 (2.32%) | 0.97 |
| Bitter taste | 9 (21.42%) | 0 (0%) | 9 (10.46%) | 0.001 |
| Diarrhea | 2 (4.76%) | 2 (4.54%) | 4 (4.65%) | 0.96 |
| Nausea | 6 (14.28%) | 5 (11.36%) | 11 (12.79%) | 0.68 |
| Overall Adverse Effects | 20 (47.6%) | 8 (18.18%) | 28 (32.55%) | 0.004 |

***PP-188***

## *Lower esophageal sphincter pressure parameters by high resolution manometry in diagnosing achalasia cardia*

**Tayyab Saeed Akhter, Mohammad Umar, Gul Nisar, Hammama-tul-bushra Khaar, Farhan Aslam**

*Center For Liver and Digestive Diseases, Holyfamily Hospital Rawalpindi, Pakistan*

***Background/Aims:*** Achalasia cardia is an important cause of non-obstructive dysphagia with a prevalence rate of 10 cases per 100,000 individuals. Presently the best diagnostic test is High resolution manometry showing absent peristalsis with raised lower esophageal sphincter pressures (LESP). However, determining Lower esophageal sphincter pressure is thought to be the most challenging aspect of manometric topographic measurements. Several parameters are available to determine lower esophageal sphincter pressure measurements and this study compares some of them in defining Achalasia.

***Materials and Methods:*** This open-label, non-randomized, uncontrolled study is carried out at Center for Liver and Digestive Diseases, Holyfamily Hospital, Rawalpindi. We evaluated patients from October 2015 through May 2019 who are 13 years or older having swallowing difficulties and their upper GI endoscopies did not reveal any physical obstruction. After informed consent all patients underwent high resolution manometry and data was interpreted as per Chicago classification v.3.0. All patients with absent peristalsis, >20% panesophageal pressurizations or >20% premature spastic contractions with at least one LESP parameter above normal are grouped as Achalasia cardia whereas all other patients are grouped as non-achalasia. Different LESP parameters including LESP mid respiratory, residual LESP for liquid and viscous swallows, visual characteristics, mean IRP for liquid and viscous swallows and median IRP for liquid and viscous swallows of both the groups are calculated and their sensitivity, specificity, PPV, NPV and diagnostic accuracy to determine achalasia is also estimated.

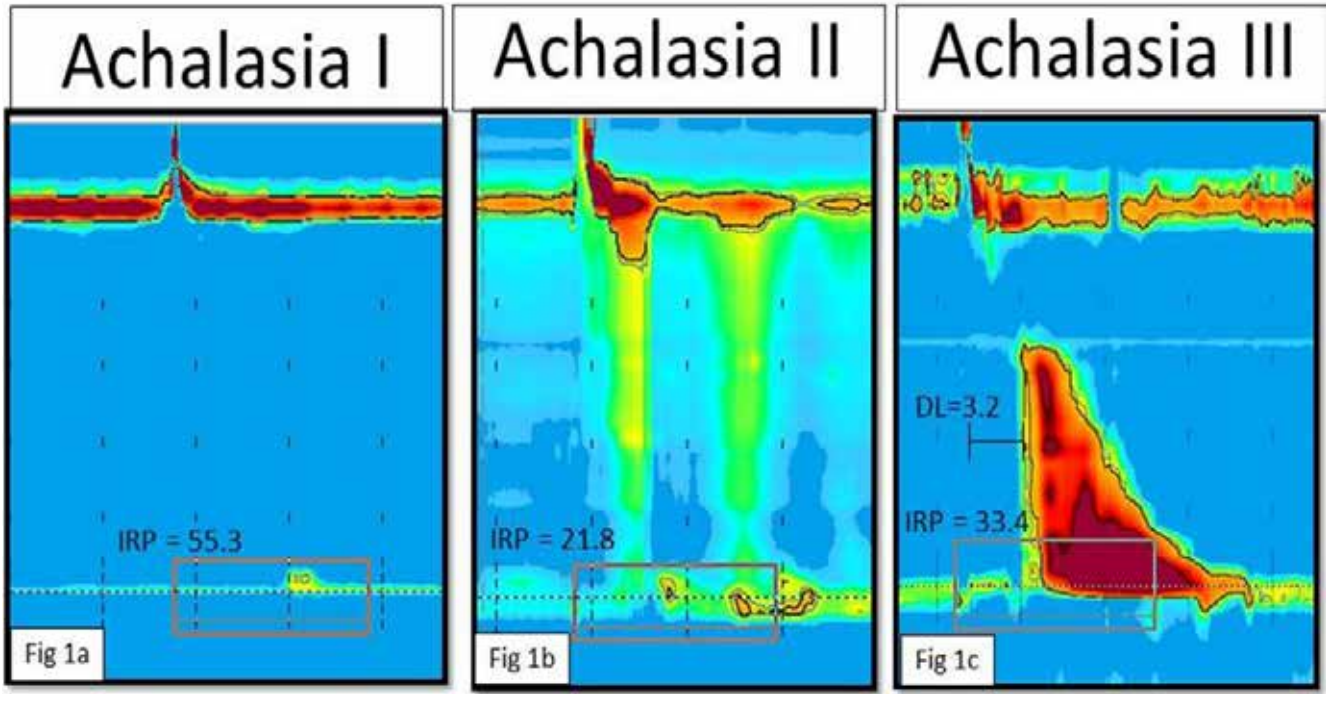
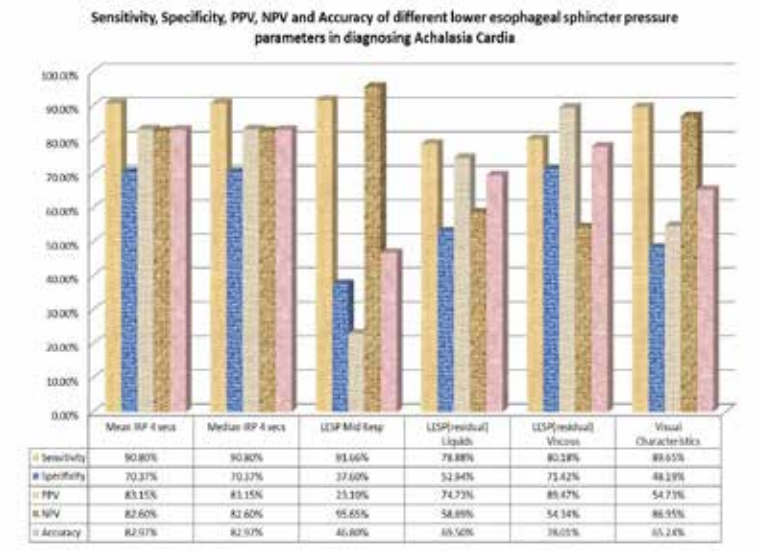


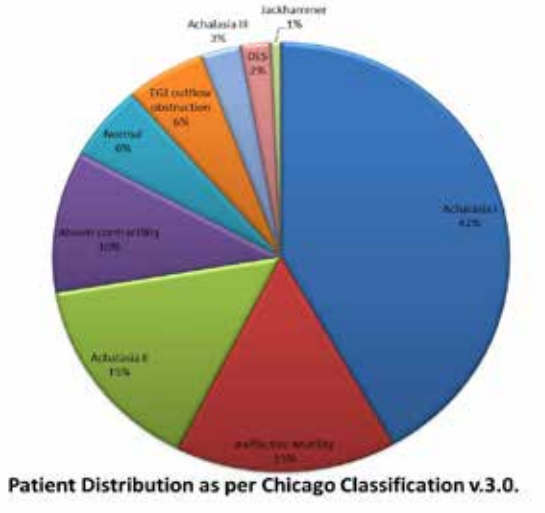

**Figure 1.** High resolution manometry findings in differenty types of achalasia with raised IRP of >15 mmHg.
1a: Classic type I achalasia with absent peristalsis. 1b: type II achalasia with panesophageal pressurizations. 1c: type III achalasia with premature spastic contractions with Distal Latency <4.5.

***Results:*** A total of 141 patients are enrolled with 95 in Achalasia group and 46 in Non-Achalasia group. Mean age of patients is 41.29+16.25 years with 75(53.2%) males and 66(46.8%) females. Mean Eckardt score in Achalasia group is 7.70 whereas mean duration of symptoms are 30.22+45.135 weeks. Type I Achalasia is the commonest diagnosis with 59(41.8%) patients followed by ineffective motility in 22(15.6%) patients. Sensitivity of LESP mid-respiratory is 91.66%, Mean IRP for 4 secs is 90.8%, Median IRP for 4 secs is 90.8%, visual characteristics is 89.65%, residual LESP for liquids is 78.88% and residual LESP for viscous is 80.18% respectively. However the best accuracy is of Median or Mean IRP for 4 secs for the diagnosis of Achalasia Cardia.

***Conclusion:*** High resolution manometry is a very important tool in diagnosing non-obstructive dysphagia and Mean or Median IRP for 4 secs is the most accurate tool to determine the LESP with an accuracy of 82.97% however other parameters should also be given consideration before excluding the diagnosis of Achalasia Cardia.

***Keywords:*** Achalasia cardia, high resolution manometry, lower esophageal sphicter pressure



Patient Distribution as per Chicago Classification v.3.0.

***PP-189***

## *The negative effect of mood disorders on quality of life in patients with inflammatory bowel disease in remission*

**Amir Nazarian, Samir Grover, Joshua Satchwell**

*University of Toronto, Toronto, Canada*

***Background/Aims:*** Irritable bowel syndrome (IBS) and mood disorders are more prevalent in patients with inflammatory bowel disease (IBD) than in the general population and have been shown to negatively impact quality of life (QOL). Anxiety and depression are known to adversely affect QOL at times of diagnosis and disease activity, however their impact during times of disease remission is unknown. To assess the effect of IBS, depression/anxiety on QOL in patients with IBD in remission.

***Materials and Methods:*** 118 adult patients with IBD in remission were recruited from the clinic setting. Participants provided a stool sample to assess for disease activity using fecal calprotectin (FC) and completed a set of questionnaires exploring

correlations between QOL as assessed by the Short Inflammatory Bowel Disease Questionnaire (SIBDQ), IBS by the ROME III criteria, and depression/anxiety by the Hospital Anxiety and Depression Scale (HADS). Comparisons were made between patients with positive and negative FC.

***Results:*** SIBDQ scores were similar in patients with positive and negative FC (57.27 and 56.11 respectively, p=0.267113). In both groups (with positive and negative FC), SIBDQ scores were similar between patients with and without IBS (52.89 and 57.32 respectively, p=0.072983 and 54.78 and 58.59 respectively, p=0.068721) however were lower in patients with anxiety/depression as opposed to patients without anxiety/depression (48.92 and 57.70 respectively, p=0.00548 and 49.1 and 59.2 respectively, p=0.000309).

***Conclusion:*** Depression and anxiety adversely affect quality of life, even at times of disease remission. Screening for depression and anxiety in patients with IBD regardless of disease activity may be beneficial in assessing overall quality of life.

***Keywords:*** IBD, IBS, HADS, fecal calprotectin, SIBDQ, short inflammatory bowel disease questionnaire, QOL, quality of life, physician global assessment, PGA

---

***PP-190***

## *A single-center experience: Pregnancy outcomes following orthotopic liver transplantation*

**Marina Mazanko, Klara Chmelova, Josef Cindr, Pavel Trunecka, Julius Spicak, Jan Sperl, Sona Frankova**

*Institute for Clinical and Experimental Medicine, Prague, Czech Republic*

***Background/Aims:*** Infertility is common in females of childbearing age with advanced liver disease. However, it may be reversed by successful orthotropic liver transplant (OLTx), leading to restoration of childbearing potential. So far there are no robust guidelines for post-OLTx pregnancy management. The aim of this study was to review the outcomes and complications of pregnancy, mother's and child's health and graft function in pregnancies after OLTx.

***Materials and Methods:*** The clinical data of 565 women who underwent LTx in IKEM between 11/1994–3/2017 were analyzed retrospectively. Among 175/565 women of childbearing age (7–44), 23/175 conceived and delivered. Between them, there were in total 49 pregnancies. Indications for OLTx were chronic liver failure in 16/23 females and acute liver failure in 7/23. 13/49 pregnant liver transplant recipients were receiving cyclosporine A-based immunosuppressive regimen, while tacrolimus-based regimen was used in 36/49 patients.

***Results:*** 33/49 pregnancies concluded with live births, 3/49 ended in pregnancy interruption and miscarriage occurred in 13/49 pregnancies. 26/33 pregnancies that ended in the live-birth occurred with no maternal or fetal complications. 7/33 serious complications during pregnancy in 6/23 females were as follows: arterial hypertension in 3 pregnancies, preeclampsia in 2 pregnancies, liver encephalopathy after TIPS procedure due to recurrence of Budd-Chiari syndrome in the graft in 1 patient and acute rejection in 1 patient. There were 6/33 preterm births in the cohort, intraventricular hemorrhage with subsequent quadriplegia was observed in one preterm delivery.

***Conclusion:*** Pregnancy in women after liver transplantation can significantly improve their quality of life. Our results indicate that pregnancies after liver transplantation are generally associated with good outcomes. Nevertheless, coordinated care by a multidisciplinary team is needed before and during pregnancy.

***Keywords:*** Liver transplantation, pregnancy, immunosuppression, fetal outcomes, maternal outcomes, graft rejection, fertility

***PP-191***

## *Absent contractility of esophagus can be type I achalasia in evolution*

**Tayyab Saeed Akhter, Mohammad Umar, Hammama-tul-bushra Khaar, Gul Nisar**

*Center For Liver and Digestive Diseases, Holyfamily Hospital Rawalpindi, Pakistan*

With the advent of High resolution manometry(HRM) and standardization of findings through Chicago classification v.3.0. categorization of esophageal motility disorders has become easy but simultaneously mislabeling of diagnosis is also a fear. We share a case of a 36 year old man who presented with dysphagia to solid and liquids for 6 months. His Eckardt score was 4. He underwent upper GI endoscopy with no evidence of mechanical obstruction. HRM was performed showing absent peristalsis with mean IRP for 4 seconds 13.3 mmHg (Normal<15 mmHg). So as per Chicago classification a diagnosis of "Absent Contractility" was made and his workup for connective tissue disorder came out to be negative. Patient was put on supportive therapy. After one year patient presented again with worsening of symptoms and his Eckardt score was 7. A repeat HRM was performed depicting very high lower esophageal pressures(mean IRP for 4 seconds 40.8 mmHg) giving a classic picture of Type I Achalasia. Different therapeutic options were discussed and patient opted for pneumatic dilatation. His dilatation was performed using 30 mm balloon dilator with a PSI of 7. His dysphagia has subsided and he is under our follow-up. A common cause of absent peristalsis is Achalasia so in patients with low IRP and absent peristalsis, diagnosis of achalasia must be kept as a consideration and we recommend a close follow-up in these patients.

***Keywords:*** Achalasia, high resolution manometry, absent contractility

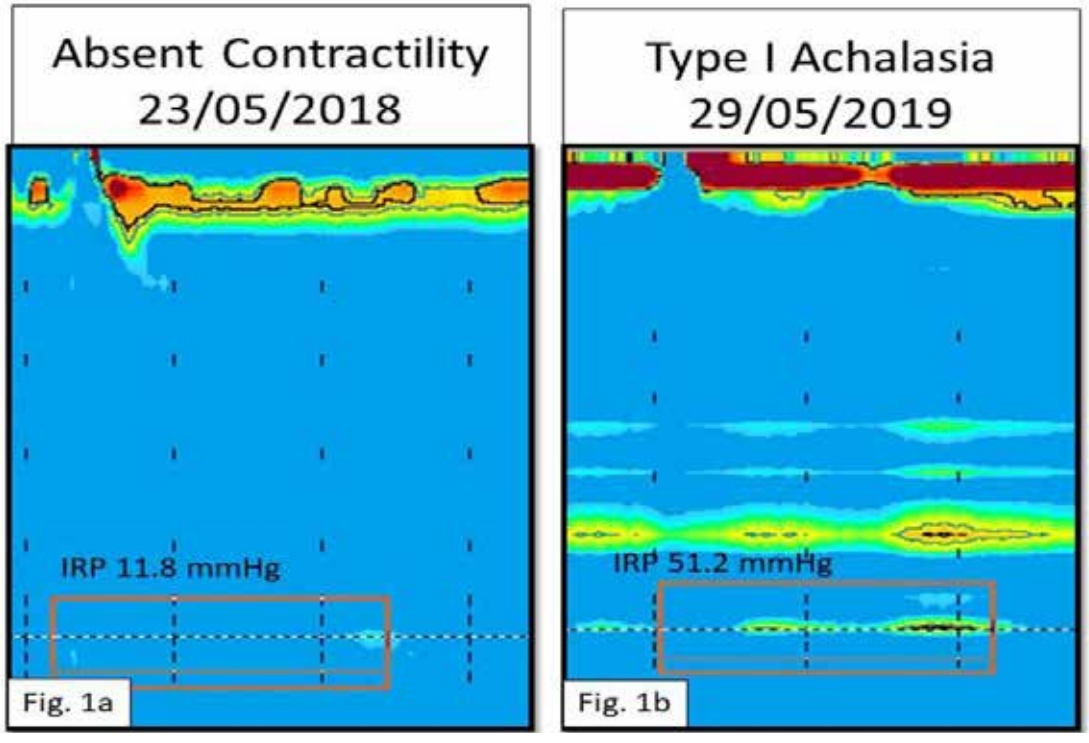



**Figure 1. a, b.** Same patient underwent HRM twice a gap of 1 year. 1a: Depicting absent peristalsis with IRP for 4 seconds <15 mmHg. 1b: Depicting absent peristalsis with cery high IRP for 4 seconds after 1 year.

| Patients Parameters | 23/05/2018 | 29/05/2019 |
|---|---|---|
| Dysphagia Score | 2 | 3 |
| Weight Loss Score | 0 | 1 |
| Retrosternal pain Score | 1 | 2 |
| Regurgitation Score | 1 | 1 |
| Eckardt Score | 4 | 7 |
| LESP mid respiratory | 23.1 mmHg | 73.7 mmHg |
| Residual LESP Liquids | 7.8 mmHg | 22.6 mmHg |
| Residual LESP Viscous | 16.5 mmHg | 13.9 mmHg |
| Mean IRP for 4 secs | 13.3 mmHg | 46.69 mmHg |
| HRM Diagnosis | Absent Contractility | Type I Achalasia |

***PP-192***

## *Urgent chemotherapy: A metastatic diffuse large B-cell lymphoma in acute liver failure*

**Aida Maria Rodriguez-hernandez, Karla Jenisse Feliciano-Salvá**

*Hospital De La Concepcion, San Germán, Puerto Rico*

***Introduction***: The decision to start chemotherapy in critically ill cancer patient with multiple-organ dysfunction is a challenge. We report a metastatic diffuse large B-cell lymphoma with liver failure who received chemotherapy.

***Case***: A 64-year-old man came to the ED with dyspnea, fever, chills, productive cough, abdominal pain, and unintentional weight loss of 2 months' duration. The pulse rate was110 bpm. Bilateral rhonchi were heard at the bases. Laboratory studies showed a serum calcium of 12.8 mg/dL, AST 199, ALT 142, ALP 205, and LDH 685. The patient was admitted with the diagnosis of bilateral multifocal pneumonia and hypercalcemia. He was started on IV antibiotics. A thorax CT scan showed multifocal lung consolidation, several lung nodules, mediastinal and hilar lymphadenopathy, and a hypodense lesion in the liver. On the 2$^{nd}$ week of admission, he developed respiratory failure and was placed on mechanical ventilation and transferred to intensive care unit. Laboratories showed increased liver enzymes, hyperammonemia, hypoprothrombinemia and lactic acidosis. Cultures were negative. The liver biopsy showed diffuse large B-cell Lymphoma (DLBCL). Chemotherapy was started with rituximab and cyclophosphamide. The liver enzymes decreased. Mechanical ventilation was discontinued. The patient was discharged on the thirty-fifth hospital day. One year after discharge, a PET scan showed complete remission.

***Conclusion***: The outcome of patients with DLBCL has changed with the introduction of rituximab in combination with chemotherapy. It is now potentially curable.

***Keywords:*** Hepatology, chemotherapy

***PP-193***

## *Understanding hereditary cancer in an ERA of precision medicine*

**Aida Maria Rodriguez-Hernandez, Marcia Cruz-Correa**

*Hospital De La Concepcion, San Germán, Puerto Rico*

Approximately 9% of pancreatic cancers has a germline or somatic BRCA1 or BRCA2 (BRCA1/2) mutation. This is a case report of a patient with a strong family history of malignancy and recurrent pancreatic cancer with a BRCA 2 positive mutation. A 53 year-old women with adenocarcinoma of pancreas diagnosed on 2017 underwent pancreatoduodenectomy and chemotherapy. She was referred to the genetic testing clinic due to a strong family history of colorectal cancer. Patient is currently on remission and asymptomatic. Physical examination was normal. Previous endogastroduodeonoscopy and colonoscopy workup was normal. Genetic panel for hereditary colorectal cancer and pancreatic cancer was ordered. No pathogenic mutations were identified. Concerned about maternal family history of breast, prostate and pancreatic cancer, BRCA-1/2 mutation was ordered. The result came back positive for BRCA 2 mutation. Cancer surveillance tests performed was negative for malignancy. A PET Scan was ordered for follow up of pancreatic cancer and showed pancreatic cancer recurrence. The evaluation of gastrointestinal cancers in patients with family history of malignancy should include full cancer pedigree with common mutations (Lynch syndrome) and consider less common mutations such as BRCA-1 and 2. BRCA positive tumors respond to poly ADP-ribose polymerase inhibitors (PARPi)**.** The poor prognosis of pancreatic cancer and PARPi appear promising. Evolving biomarkers and germline genetic testing provides us with the opportunity to deliver precision and personalized medicine.

***Keywords:*** Pancreatic cancer, oncology, PARP inhibitors

---

***PP-194***

## *Efficacy of mosapride citrate with a split dose of PEG+ascorbic acid for bowel preparation in elderly patients*

**Jin Lee, Tae Hyung Kim, Yong Eun Park, Jongha Park, Tae Oh Kim**

*Inje University Haeundae Paik Hospital, Busan, South Korea*

***Background/Aims:*** Adequate bowel preparation is essential for an effective and safe colonoscopy. Old age is a risk factor of suboptimal bowel preparation. This study aimed to evaluate the efficacy of mosapride citrate with a split dose of polyethylene glycol (PEG) plus ascorbic acid for bowel preparation in elderly patients (≥65 years).

***Materials and Methods:*** A prospective, investigator-blinded, randomized study was conducted from November 2017 to October 2018. Patients were randomly divided into two groups: mosapride citrate with split-dose PEG plus ascorbic acid (mosapride group) or split-dose PEG plus ascorbic acid alone (non-mosapride group). Mosapride citrate was administered twice with each split-dose of bowel preparation. The quality of bowel preparation in both groups was assessed using the Boston Bowel Preparation Scale (BBPS).

***Results:*** A total of 257 patients were finally included and analyzed. Total BBPS score was significantly higher in the mosapride group than in the non-mosapride group (8.53 vs 8.24, p=0.033). The BBPS scores of right colon and mid-colon were 2.75 vs 2.61 (p=0.044) and 2.89 vs 2.79 (p=0.030), respectively, which were higher in mosapride group than in non-mosapride group. The rate of adequate preparation (BBPS≥6) was similar in both groups (98.4% vs 98.5%, p=0.968), but the rate of excellent preparation (BBPS=9) was higher in mosapride group compared with non-mosapride group (73.8% vs 61.1%, p=0.029). The total incidence of adverse events during administration of bowel cleansing agent was lower in mosapride group, especially in abdominal distension (11.9% vs 30.5%, P<0.001).

***Conclusion:*** A mosapride citrate with a split-dose of PEG+ascorbic acid in elderly patients showed efficacy in bowel preparation and the effect of reducing adverse events such as abdominal distension during administration of bowel cleansing agent.

***Keywords:*** Old age, bowel preparation, mosapride

---

***PP-195***

## *Overlap syndrome of IBS and dyspepsia in Irkutsk*

**Vladislav Tsukanov[1], Elena Onuchina[2], Irina Petrunko[2], Alexander Vasyutin[1], Julia Tonkikh[1]**

*[1]Scientific Research Institute of Medical Problems of the North, Krasnoyarsk, Russian Federation*
*[2]Irkutsk State Medical Academy of Postgraduate Education – Branch Campus of the Fsbei Fpe Rmacpe Moh Russia, Irkutsk, Russian Federation*

***Background/Aims:*** To study the relationship of irritable bowel syndrome (IBS) and dyspepsia in Irkutsk city.

***Materials and Methods:*** 838 people were interviewed and clinically examined (362 men and 476 women, average age 51.0 years) on the basis of the three institutions of the Irkutsk city. Diagnosis of IBS and dyspepsia was performed on the basis of Rome IV criteria using a standard questionnaire for diagnosing diseases of the digestive system (Lacy B.E. et al., 2016; Stanghellini V. et al., 2016).

***Results:*** The overall prevalence of IBS in the Irkutsk city was 12.4% (10.5% in men and 13.9% in women; OR=0.73; DI 0.48-1.11; p=0.17). Dyspepsia was registered in 19.3% of the examined patients (18.5% of men and 20.0% of women; OR=0.91; CI 0.65-1.29; p=0.66). Dyspepsia was found in 15.3% of persons without IBS and in 48.1% of patients with IBS (OR=0.20; CI 0.13–0.30; p<0.001). The frequency of dyspepsia with a predominance of epigastric pain syndrome was 4.0% in patients without IBS and 12.5% in patients with IBS (OR=0.28; CI 0.14-0.56; p<0.001). For dyspepsia with a predominance of postprandial distress syndrome, these indicators were, respectively, 11.3% and 35.6% (OR=0.23; CI 0.15-0.37; p<0.001).

***Conclusion:*** In the study we registered an increase in the frequency of dyspepsia and its subtypes in patients with IBS compared with patients without IBS.

***Keywords:*** Irritable bowel syndrome, dyspepsia, overlap syndrome, functional disorders

---

***PP-196***

## *Long-term effects of tenofovir on renal functions in patients with treatment naive chronic hepatitis B*

**Jihat Kılıç [1], Feyzullah Uçmak [2], Berat Ebik [2], Muhsin Kaya [2], Kendal Yalçın [2]**

*[1]Department of Internal Medicine, Dicle University School of Medicine, Diyarbakır, Turkey*
*[2]Division of Gastroenterology, Dicle University School of Medicine, Diyarbakır, Turkey*

***Background/Aims:*** Hepatit B virus (HBV) is one of the main causes of liver related morbidity and mortality in worldwide.This condition is also a significant healthcare problem in Turkey. Entecavir (ETV) and tenofovir (TDF) are potent nucleos(t)ide analogues (NAs) recommended for the treatment of chronic HBV (CHB) infection. However, some reports suggested a link with NAs and nephrotoxicity particularly in long-term use. As the data on this topic is limited, we aimed to study the association of NAs and nephrotoxicity in our CHB cohort.

***Materials and Methods:*** Between the January 2011 and February 2016, there were 294 patients who had been treated with TDF (n=194) and ETV (n=100). Clinical and laboratory data such as demographics, serological markers for HBV, pathology scores and routine blood tests were recorded from the charts. Glomerular filtration rate (GFR) was calculated by using MDRD method. Kidney function tests were assessed at baseline and follow-up visits.

***Results:*** There were 294 patients in the total group. The mean age was 32±11 years 66% (n=194) of the group was male. The mean follow-up period was 66±18 months. Age and sex distributions and baseline assessments including liver function tests, creatinine, GFR, HBVDNA values and pathology scores (HAI and fibrosis) were similar between TDF (n=194) and ETV (n=100) groups. Creatinin and GFR assessed at the last visit were 0.81±0.01 g/dl and 102.94+19.78 ml/min for TDF and 0.81±0.013 g/dl and 104.65±19.05 ml/min for ETV. These values were not significant between the both treatment groups. In terms of nephrotoxicity, none of the patients had significant changes in terms of creatinine and GFR that may require dose adjustament.

***Conclusion:*** Herein we showed that the use of both drugs led to a decrease in GFR that was not clinically important in chronic hepatitis B patients with normal baseline renal tests and without co-morbidity. Although its use is safe regarding renal side effects in these patients, patients who started on TDV should be regularly monitored in terms of renal function tests especially in patient with CHB having comorbidities.

***Keywords:*** Entecavir, tenofovir, GFR, chronic hepatitis B, kidney function tests, glomerular filtration rate

---

***PP-197***

## *Ethnic features of IBS and heartburn overlap in the administrative center of the republic of Buryatia*

**Vladislav Tsukanov[1], Elena Bardymova[2], Aryuna Tsyrempilova[2], Alexander Vasyutin[1], Julia Tonkikh[1]**

*[1]Scientific Research Institute of Medical Problems of the North, Krasnoyarsk, Russian Federation*
*[2]Buryat Republican Clinical Hospital, Ulan-Ude, Russian Federation*

***Background/Aims:*** To study the relationship of irritable bowel syndrome (IBS) and weekly heartburn in the Ulan-Ude city.

***Materials and Methods:*** Interviewing and clinical examination of 900 people (402 men and 498 women, average age 43.2 years) were performed in two clinics in the Ulan-Ude city using a standard questionnaire for the diagnosis of gastrointestinal diseases. The diagnosis of IBS was performed on the basis of the Rome IV criteria (Lacy B.E. et al., 2016). Heartburn was determined based on the recommendations of the Montreal Consensus (Vakil N. et al., 2006). By ethnicity, 376 surveyed people were Buryats and 524-Caucasoids.

***Results:*** The overall prevalence of IBS in Ulan-Ude city was 10.6%. IBS was registered in 8.2% of Buryats and in 12.2% of Caucasoids (OR=0.65; 95% CI 0.41-1.01; p=0.07); in 10.7% of men and 10.4% of women (OR=1.03; 95% CI 0.67-1.57; p>0.9). Weekly heartburn was recorded in 10.2% of Caucasoids without IBS and in 20.3% of Caucasoids with IBS (OR=0.44; 95% CI 0.22-0.86; p=0.03). For the Buryats, these indicators were, respectively, 6.7% and 12.9% (OR=0.45; 95% CI 0.15-1.31; p=0.35).

***Conclusion:*** During the study, a higher frequency of weekly heartburn was detected in Caucasoids with IBS, compared with patients without IBS. In the Buryats, similar differences were not significant.

***Keywords:*** Irritable bowel syndrome, heartburn, GERD, overlap syndrome

***PP-198***

## *The effectiveness of treatment with direct antiviral agents in patients with chronic viral hepatitis "C" with 3rd genotype*

**Alexander Borisov[1], Vladislav Tsukanov[1], Andrey Savchenko[1], Alexander Vasyutin[1], Julia Tonkikh[1], Elena Tikhonova[2]**

*[1]Scientific Research Institute of Medical Problems of the North, Krasnoyarsk, Russian Federation*
*[2]Krasnoyarsk State Medical University, Krasnoyarsk, Russian Federation*

***Background/Aims:*** To study the effectiveness of therapy in persons with the third genotype of chronic viral hepatitis "C" using two schemes: sofosbuvir+daclatasvir and sofosbuvir+veltapasvir.

***Materials and Methods:*** 124 patients were treated (73 men, 51 women; average age 54.3±1.9 years) with the third genotype of chronic viral hepatitis "C" (HCV). To verify the diagnosis of HCV, 3 genotypes were performed standard clinical, biochemical and immunological examination. The assessment of the liver fibrosis degree was performed by elastometry on the Aixplorer apparatus. 97 patients according to the EASL clinical recommendations 2016 received a combination of sofosbuvir (400 mg) and daclatasvir (60 mg) daily (group A); 27 patients were treated on the basis of EASL clinical recommendations 2018 using sofosbuvir (400 mg) and velpatasvir (100 mg) in one tablet, administered once a day (group B). The duration of treatment depended on the degree of liver fibrosis: for F0 and F1, treatment was carried out for 12 weeks, for fibrosis F2, F3 and F4-24 weeks.

***Results:*** In group A, the proportion of individuals with F0 and F1 fibrosis was 44.8%, with fibrosis F2-11.1%, with fibrosis F3 and F4-37.1%. In group B, this ratios was, respectively, 29.7%, 22.2% and 48.1%. There were no patients with decompensated cirrhosis in the examined groups. All patients received antiviral therapy for the first time. In group A, a sustained virological response after 12 weeks (SVR-12) was achieved in 100% of cases; SVR24-in 96.9% of cases (n=94) of therapy. Two of the patients who did not respond to treatment had fibrosis of the F3, and one had F4 stage by Metavir. In group B, SVR-12 and SVR-24 were achieved in 100% of cases (n=27) of therapy.

***Conclusion:*** The results of this work demonstrate a higher efficacy of the sofosbuvir+velpatasvir therapy compared with the sofosbuvir+daclatosvir regimen.

***Keywords:*** HCV, treatment, liver fibrosis

---

***PP-199***

## *T-cell blood immunity status in patients with chronic viral hepatitis "C" with 1st genotype before and after antiviral therapy*

**Alexander Borisov, Andrey Savchenko, Vladislav Tsukanov, Alexander Vasyutin, Julia Tonkikh**

*Scientific Research Institute of Medical Problems of the North, Krasnoyarsk, Russian Federation*

***Background/Aims:*** To determine the subpopulation composition of blood T-lymphocytes in patients with chronic viral hepatitis "C" with 1 genotype before and after antiviral therapy.

***Materials and Methods:*** 18 patients with chronic viral hepatitis "C" (HCV) with 1 genotype (10 men and 8 women, average age 43.4 years) were under observation in the gastroenterological department of the "Scientific Research Institute of medical problems of the North" clinic. To verify the diagnosis of HCV, 1 genotype was performed standard clinical, biochemical and immunological examination. The degree of liver fibrosis was assessed using the elastometry method on an Aixplorer apparatus. Treatment of patients with HCV was carried out for 3 months with direct antiviral drugs (So-

fosbuvir and Daclatosvir). The control group included 46 healthy blood donors (25 men and 21 women, mean age 40.6 years) with negative results for the presence of viral hepatitis markers. The study of the subpopulation composition of T-lymphocytes was performed by direct immunofluorescence of whole peripheral blood using monoclonal antibodies to CD3, CD4, CD45RO and CD62L, marked with fluorescent dyes. Cell analysis was performed on a Navios flow cytometer (USA).

***Results:*** Treatment of viral hepatitis "C" was accompanied by an increase in the absolute number of T-lymphocytes in the blood, a decrease in naive CD4 (+) (from 12.0% to 8.7%, p=0.05) and naive CD4(-) T cells (from 7.1% to 4.7%, p=0.04) and an increase in CD4(+) effector memory T cells (from 15.6% to 20.1%, p<0.001).

***Conclusion:*** We found an increase in the total number of T-lymphocytes, a decrease in the proportion of naïve T cells and an increase in the proportion of CD4 (+) effector memory T cells as a result of antiviral therapy in HCV patients with 1 genotype.

***Keywords:*** HCV, treatment, T-lymphocytes, cellular immunity

---

***PP-200***

## *Functional activity of blood phagocytes in patients infested by opisthorchis felineus*

**Ekaterina Gorchilova[1], Vladislav Tsukanov[2], Olga Rzhavicheva[1], Oxana Kolenchukova[2], Ivan Gvozdev[2], Andrey Savchenko[2], Alexander Vasyutin[2]**

*[1]Phi Clinical Hospital Rzd-Medicine of Krasnoyarsk City, Krasnoyarsk, Russian Federation*
*[2]Scientific Research Institute of Medical Problems of the North, Krasnoyarsk, Russian Federation*

***Background/Aims:*** To study the features of the reactive oxygen species (ROS) production in blood phagocytes among patients infested by Opisthorchis felineus.

***Materials and Methods:*** A total of 27 patients with opisthorchiasis (14 men and 13 women) and 35 practically healthy patients (18 men and 17 women) aged from 24 to 45 years were examined. The Opisthorchis felineus detection was performed by three methods: microscopic examination of duodenal bile, coproovoscopy and serological method. The control group was recruited from healthy individuals who underwent a standard medical examination, which included biochemical blood tests, the determination of markers for viral hepatitis and antibodies to Opisthorchis felineus. The culture of blood neutrophils and monocytes was isolated by fractionation of cells on ficoll, with followed purification from adherent cells. The functional activity of blood neutrophils and monocytes was assessed by chemiluminescence method for ROS production: baseline and after induction with zymosan.

***Results:*** An increase in peak time (Tmax) and a decrease in the maximum intensity of ROS production (Imax) in the spontaneous and zymosan-induced chemiluminescent reaction, as well as a decrease in ROS production speed in neutrophilic granulocytes and monocytes were determined in patients with opisthorchiasis, in comparison with the control group. Thus, in neutrophils in a spontaneous reaction, Tmax was 1257 sec. in patients with opisthorchiasis and 915 sec. in healthy patients (p=0.039); Imax-10538 p.u. in individuals with opisthorchiasis and 24851 p.u. in the control group (p=0.017). For the induced reaction in neutrophils, these indicators were, respectively, 1201.5 sec. and 648 sec. (p=0.008); 5448.5 p.u. and 18495 p.u. (p=0.002).

***Conclusion:*** The obtained data suggest a low functional activity of blood phagocytes in patients infested by Opisthorchis felineus in comparison with healthy individuals.

***Keywords:*** Opisthorchis felineus, opisthorchiasis, phagocytes, monocytes, neutrophils

***PP-201***

## *Shear wave elastography and B-flow effective for mutiparameter evaluation of fatty liver*

**Rostyslav Bubnov, Oleksandr Mukhomor**

*Clinical Hospital Pheophania, Ukraine*

***Background/Aims:*** Fatty liver is associated with visceral obesity, metabolic syndrome, type 2 diabetes and insulin resistance, abnormal lipid metabolism. Ultrasonography (US) can provide accurate information for detecting fatty liver. Shear wave elastography (SWE) is a well-known ultrasound method for assessing fibrosis. B-flow imaging is a powerful technique for non-invasive flow evaluation. The aim was to study relevance of US markers of fatty liver including SWE and B flow to provide advantages to grey scale and Doppler in assessing hepatic parenchyma and vasculature.

***Materials and Methods:*** We included 30 patients with with NAFLD and 20 healthy individuals as controls. All patients underwent general clinical, lab tests; measuring APRI index; multiparameter US of liver, measuring SWE, and B-flow of liver parenchyma and vessels using curved abdominal transducer of LOGIQ 9 systems (GE Healthcare).

***Results:*** We detected signs of fatty liver in all patients (LF2-4), liver size in right lobe was 173±8 mm vs 142±7 mm in controls, SWE changed 8.6±1.3 kPa (6-13 kPa) vs 4.7±.8 kPa and the APRI scores were greater than 0.7 in all patients (P< 0.05). high spatial resolution of B-flow imaging helped to display complex vasculature, low vascularization; detects hypovascular areas; measure diameters of portal vein and branches, hepatic vein; visualize shunts; vascular flow in areas of heterogeneity on grey scale. Liver size and SWE data demonstrated positive correlation.

***Conclusion:*** Multiparameter ultrasound is robust and accessible method for diagnosis of fatty liver. SWE and B flow are effective complementary techniques capable to provide advantages to assess the hepatic parenchyma and vasculature.

***Keywords:*** Ultrasonography, liver, NAFLD, elastography, blood flow

---

***PP-202***

## *Bifidobacteria animalis vkl and VKB probiotic strains are effective for alleviating mesenteric ischemia in patients with metabolic syndrome*

**Rostyslav Bubnov, Mykola Spivak**

*Zabolotny Institute of Microbiology and Virology, Nas of Ukraine, Kyiv, Ukraine*

***Background/Aims:*** Ischemic colitis-common disease of elderly with widespread atherosclerosis and in younger induividuals suffering from vascular dysregulation. Ultrasound has reliable diagnostic capabilities for mesenteric ischemia (MI). MI can be a relevant marker to stratify patients with metabolic dysorders as a source of hypoxic signaling. Modulating gut microbiome can improve metabolic health and alleviate mesenteric ischemia. The aim to study the efficacy of short-term probiotic therapy of MetS with mesenteric ischemia.

***Materials and Methods:*** We included eight patients (age 56-76 years) with BMI>30, who met criteria of MetS with clinical symptoms of mesenteric ischemia. We did extensive protocols of abdominal ultrasound, standardized Doppler spectral analysis of mesenteric blood flow evaluation velocity criteria in superior & inferior mesenteric arteries, structure and vascularity of colonic wall before and after treatment. Patients were given probiotics (B. animalis VKB/B. animalis VKL strains) at a dose $10^8$ CFU daily during 10 days.

***Results:*** Weight, BMI decreased after probiotic administration. Mesenteric blood flow parameters were improved (PSV from 140-170 cm/sec vs 105-143 cm/sec, p< 0.05), decreased to 123 cm/sec after treatment; colonic wall thickness was decreased to 2—3.3 mm (up to 1-3) and restored to 3.5-4.2 mm and improved vascularization on B-flow after probiotic treatment. Constipation, colon hyperpneumatosis, hypomotility improved after intervention. Gut microbiota improved after probiotic treatment in increasing diversity, LAB, decreasing pathogens. We detected decreasing visceral fat, liver size and stiffness, leveks of constipation, colon hyperpneumatosis, hypomotility in all patients.

***Conclusion:*** Short-term probiotic administration of Bifidobacteria animalis VKL and VKB strains is effective therapy of MetS with mesenteric ischemia.

***Keywords:*** Mesenteric ischemia, probiotics, metabolic syndrome

---

***PP-203***

## *Hormonal intestinal incretins, microbiota metabolites and addiction behavior*

Denise De Carvalho

*Instituto Denise De Carvalho, Brazil*

***Background/Aims:*** The aim of this post is to review the present literature regarding addictive behavior and its relations to hormonal intestinal incretins and gut microbiome metabolites and we aim to summarize the data as new targets for the treatment of addictions, like alcohol and eating disorders.

***Materials and Methods:*** We made a review of the current literature about the theme and hypothesized the possible alternatives for new treatments.

***Results:*** Extensive research shows that increased Dopamine release in the nucleus accumbens (NAc) mediates the reinforcing effects of drugs of abuse and natural rewards. The cholinergic-dopaminergic circuitry may participate in reinforcement as well and it is activated also by non-drug rewards. Appetite regulatory peptides are expressed throughout reward-related areas and this may outline the possibility that these peptides play a role as regulators of reinforcement. The direct production of metabolites by the gut microbiota that could be released in the circulation, especially in the case of enhanced gut permeability, may also participate, as clinical studies have shown the potent role of inflammation for the development of substances dependence.

***Conclusion:*** Increasing evidence suggests that the gut and the gut microbiota affects different physiological and behavioural outcomes through modulation of neuroendocrine pathways. The production of hormones and neuroactive metabolites from the gastrointestinal tract influences distal sites and ultimately results in central activation and behavioural changes. Identifying novel targets that may lead to the development of new treatments for addictive behaviors is a priority (Litten et al., 2018). The ghrelin system, as well GLP-1, represent promising targets, yet a lot of work is still needed. Modulating microbiota, by diet, dietary supplements (like fibers) and pre or probiotics my also be a great and low risk target for treating addiction as an adjuvant strategy.

***Keywords:*** Gut microbiota, ghrelin, GLP-1, addiction behavior

---

***PP-204***

## *A great mimicker in a cocaine user with abdominal pain*

Aida Maria Rodriguez-Hernandz

*Hospital De La Concepcion, San Germán, Puerto Rico*

An omental infarction is a rare disorder that may mimic an acute abdominal syndrome. It is caused by vascular damage to the omentum. Mesenteric ischemia and gastric ulcers have been associated with cocaine abuse. This is a patient presenting with abdominal pain found with omental infarction after cocaine use. A 28-year-old male surfer, with depression, anxiety disorder, heavy alcohol and cocaine abuse came to emergency department (ED) with epigastric and right upper quadrant abdominal pain of 1-week duration that started after binge drinking and cocaine use. The pain was progressive, sharp, severe, worsened with sitting position and associated with early satiety.The vital signs were normal. The abdomen was tender on epigastric region and RUQ, but soft to palpation. CBC showed leukocytosis of 11.95 $x10^3$/uL. The liver and pancreatic enzymes were normal. Abdominopelvic CT with contrast showed vascular congestive changes in the omentum suggesting fat necrosis vs omental infarction. On day 4 admission, abdomen became rigid and diffusely tender. An exploratory laparotomy showed necrotic omentum. Omentectomy was perfomed. Biopsy showed hemorrhagic infarct. After surgery symptoms improved and patient was discharged. Low incidence and non-specific presentation makes omental infarction (OI) a challenging diagnosis. Radiological imaging is crucial. The onset of symptoms after drug abuse was probably the cause of the OI. The association of cocaine and omental infarction merits further investigation.

***Keywords:*** Omental infarction, general gastroenterology, surgery

---

***PP-205***

## *The efficacy of adding daflon to the conventional treatment on the improvement of symptoms and health related quality of life in the patients with acute hemorrhoids: A randomized clinical trial*

**Marjan Mokhtare[1], Reza Pakravan[2], Abbas Gholami[3], Peyman Namdar[4], Mohsen Masoodi[5], Mansour Bahardoust[6], Behdad Behnam[7]**

*[1]Associate Professor of Gastroenterology, Colorectal Research Center, Iran University of Medical Sciences, Tehran, Iran*
*[2]Resident of Geriatric Medicine, Iran University of Medical Sciences, Tehran, Iran*
*[3]Assistant Professor of Internal Medicine, Iran University of Medical Sciences, Tehran, Iran*
*[4]Assistant Professor, Emergency Medicine, Metabolic Disease Research Center, Qazvin University of Medical Science, Qazvin, Iran*
*[5]Associate Professor of Gastroenterology, Colorectal Research Center, Iran University of Medical Sciences, Tehran, Iran*
*[6]Student of Epidemiology, Colorectal Research Center, Iran University of Medical Sciences, Tehran, Iran*
*[7]Resident of Internal Medicine, Iran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Patients with hemorrhoids are often treated successfully through surgical invasive procedures, even in the form of outpatient treatment. However, some patients are complaining of postoperative symptom recurrence. It has been shown that the administration of hesperidin reduces the severity of bleeding and the rate of recurrence. However, the efficacy rate of the medical treatment is still in doubt. The aim of this study was to assess the efficacy of adding Daflon to the conventional treatment on the improvement of symptoms and health related quality of life in patients with acute hemorrhoids.

***Materials and Methods:*** Nighty four adult patients with acute hemorrhoids were randomly assigned into the two groups: group A (topical anti-Hemorrhoid and lifestyle modifications) and the group B (Daflon 1500 mg twice in a day orally in the first four days and 1000 mg twice in a day for three days later, added to the conventional treatment). Demographic, clinical data, SF-12V1 Health (mental and physical) Survey questionnaire were reported at baseline and two weeks after treatment.

***Results:*** Forty five and 43 patients in Group A and group B completed the study, respectively. The bleeding sopping as decreasing bleeding rate was significantly higher in group B (p=0.045). The study showed significant difference in physical, general health scores between two groups after two weeks of treatment (p values=0.039, 0.0236 respectively).

***Conclusion:*** Adding Daflon to the conventional treatments of acute hemorrhoid is safe and can improve symptoms and health related quality of life in the patients with hemorrhoids.

***Keywords:*** Daflon, acute haemorrhoids, pain score, bleeding, SF-12V1 Health Survey questionnaire

***PP-206***

## *Case-specific short-term probiotic therapy effective for cholestatic liver disease and NAFLD/NASH*

**Rostyslav Bubnov, Mykola Spivak**

*Zabolotny Institute of Microbiology and Virology, Nas of Ukraine, Kyiv, Ukraine*

***Background/Aims:*** Cholestasis has deep interplay with non-alcoholic fatty liver disease (NAFLD), nonalcoholic steatohepatitis (NASH) and metabolic syndrome (MetS) triggering inflammation, liver fibrosis and carcinogenesis. Modulating gut microbiome can improve metabolic health and hepatobiliary system. The aim was to evaluate specific therapeutic effects of probiotics on NAFLD/NASH and cholestasis.

***Materials and Methods:*** We included 15 consecutive patients with NAFLD (age 26-63 years), BMI>30. All patients underwent general clinical, lab tests, APRI; multiparameter ultrasound (US) of liver, measuring shear wave elastography (SWE), bile ducts (CBD, choledochus and segmental ducts), pancreatic size and structure. Patients were stratified for cholestatic group with increased of CPD diameter over 8 mm. The participants were categorized into subgroups who specifically received compositions of probiotic strains at a dose $10^8$ CFU daily during 10 days, selected according to properties, namely: in cholestasis-susceptible to bile strains (*L. plantarum* LM VK7 and B. animalis VKB.) and BSH (+) bifidobacteria *B. animalis* VKL; or resistant to bile strains + BSH(+) anti-inflammatory strains (*B. animalis* VKL/*B. animalis* VKB/*L. casei* IMV B-728) in cholangitis and aerobilia signs; in NAFLD signs we used composition of *L. delbrueckii* subsp. *bulgaricus* IMV B-7281, *B. animalis* VKB or *B. animalis* VKL/*B. animalis* VKB/*L. casei* IMV B-7280. in signs of NASH.

***Results:*** Weight, BMI, WC and VF decreased after probiotic administration. We revealed that size of the liver decreased after *L. delbrueckii* subsp. *bulgaricus* IMV B-7281, *B. animalis* VKB after probiotic intervention. *B. animalis* VKL/*B. animalis* VKB/*L. casei* IMV B-7280 improved the liver structure, SWE changed from 9.8 kPa to 4.5 kPa ($p<0.05$); APRI from 1.2 to 0.85. We registered the decrease of CPD diameter in the overall cohort up to 4-6 mm; segmental bile ducts under 1.3 mm; decreasing bilirubin level under 15mg/dL. Dysbiosis in gut microbiota composition was detected in dilating of CBD over 13 mm and improved after probiotic treatment.

***Conclusion:*** Probiotics improve symptoms of NAFLD/NASH and cholestasis in overweight patients; short-term probiotic therapy is effective if prescribed individualized.

***Keywords:*** Cholestasis, NAFLD, probiotics, ultrasound

---

***PP-207***

## *The role of hematological parameters in determining the severity and prognosis of acute pancreatitis*

**Fehmi Ateş, Ataman Köse, Osman Özdoğan, Serkan Yaraş, Enver Üçbilek, Engin Altıntaş, Orhan Sezgin, Zanyar Akkuzu, Hatice Balcı, Ferzan Aydın**

*Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Acute pancreatitis (AP) is a common inflammatory disease in the emergency department (ED). The aim of this study is to assess the prognostic role of CRP and hematologic parameters in mild and severe AP patients with biliary and nonbiliary AP at the time of admission to the ED.

***Materials and Methods:*** A 168 patients who were diagnosed as AP in ED and 100 as a control group were included in the study. Demographic information (age, sex), amylase, lipase, CRP, hematological parameters (WBC, MPV, RDW, PLT,

NLR) of all patients and control group were recorded and compared. The patients were divided according to the etiology of the AP, bilier and non-bilier groups. According to the severity of the disease, two groups were formed as mild and severe AP.

***Results:*** Significant differences were found between WBC, CRP, NLR, MPV and PLT values between patient and control group (p<0.001). Ranson and APECHE II scoring correlated with WBC, CRP and NLR. There was a statistically significant difference between the mild and severe AP groups for the duration of hospital stay, CRP, WBC and NLR (p=0.003 for CRP, p<0.001 for others). In severe AP, the cutoff value of NLR was found to be 8.05, sensivites%93.48, specificity%86.89 and AUC 0.937 (p<0.001).

***Conclusion:*** The use of parameters such as WBC, CRP, and NLR in combination with other diagnostic and prognostic tools in emergency service can contribute to the determination of disease severity and pronosis to clinicians at the time of admission.

***Keywords:*** Acute pancreatitis, neutrophil-to-lymphocyte ratio, mean platelet volume, red cell distribution width, platelet count

---

***PP-208***

## *The prevalence and lifestyle-associated risk factors of gastroesophageal reflux disease in fishermen*

**Ahmad Fariz Malvi Zamzam Zein[1], Catur Setiya Sulistiyana[2], Tissa Octavira Permatasari[2], Uswatun Hasanah[3], Tiar Masykuroh Pratamawati[4], Enny Suhaeni[5]**

*[1]Department of Internal Medicine, School of Medicine, Universitas Swadaya Gunung Jati, Indonesia*
*[2]Department of Medical Education, School of Medicine, Universitas Swadaya Gunung Jati, Indonesia*
*[3]Department of Biostatistics And Epidemiology, School of Medicine, Universitas Swadaya Gunung Jati, Indonesia*
*[4]Department of Genetics, School of Medicine, Universitas Swadaya Gunung Jati, Indonesia*
*[5]Department of Public Health, School of Medicine, Universitas Swadaya Gunung Jati, Indonesia*

***Background/Aims:*** This study was aimed to investigate the prevalence and lifestyle-associated risk factors of gastroesophageal reflux disease (GERD) among adult fishermen.

***Materials and Methods:*** A cross-sectional study was conducted among 168 adult fishermen in Cirebon Regency, West Java, Indonesia. A self-administered questionnaire based on validated GERD questionnaire (GERDQ) was given. The questionnaire consisted of demographic characteristics and the symptoms score for GERD. A symptoms score of at least 8 was considered as GERD. The habitual actions were also reported. Data were analyzed using descriptive statistics and chi-square test. The study has been approved by an ethical committee.

***Results:*** The median age of the subjects was 39.0 years old. They were predominantly (60.7%) female. The prevalence of GERD in this study was 22.6%. According to bivariate analysis, GERD was associated with smoking (PR=1.181; 95%CI: 1.013-1.377; p=0.041), high-salt intake (PR=2.419; 95%CI: 1.079-5.424; p=0.029), herb consumption (PR=3.068; 95%CI: 1.307-7.200; p=0.008), and nonsteroid antiinflammatory drugs (NSAIDs) consumption (PR=3.062; 95%CI: 1.446-6.488; p=0.003). Tea consumption, coffee consumption, and raw vegetable eating were not associated with GERD in this study.

***Conclusion:*** This population-based study showed that the prevalence of GERD in fishermen is high and it is associated with lifestyle, included smoking, high-salt intake, herb consumption, and NSAIDs consumption. Further studies are needed to evaluate the association between lifestyles and GERD in fishermen.

***Keywords:*** Prevalence, lifestyle-associated risk factor, gastroesophageal reflux disease, fishermen

***PP-209***

## *The importance of colonoscopic marking for preoperative localization in nonpalpable colon cancer: Case report*

Nimet Yılmaz

*Department of Internal Medicine, Division of Gastroenterology, University of Sanko, School of Medicine, Gaziantep, Turkey*

***Introduction***: Polyps that require surgical resection are usually palpated during laparotomy, but intraoperative localization of small lesions can be missed with this method. As a result, the wrong bowel segment can be resected. In this report we present a case in which the surgeon could not correctly palpate the endoscopic labeling and remove the wrong colonic segment of the polyp detected in colonoscopy and pathology was adenocarcinoma.

***Case***: A 68-year-old female patient applied to our outpatient clinic with abdominal pain. In colonoscopy, a sessile polyp approximately 1.5 cm in size was seen at the rectosigmoid junction (picture 1). The biopsy result of this polyp was consistent with adenocarcinoma invading the submucosa. The patient underwent surgical resection with open laparotomy in another center and pathologic diagnosis was consistent with regular structure of the colon mucosa. Hypermetabolic asymmetric wall thickening area in rectosigmoid region was evaluated in favor of primary malignancy on PET CT taken to the patient (SUV Max: 7.3), (picture 2). A new colon colonoscopy after PET showed that the anastomosis line narrowed so as not to allow the passage of the endoscope, and irregular mucosal sessile polyps 2 cm in size was observed at approximately 1-2 cm distal to the stenosis (picture 3). The biopsy result of this polyp was consistent with invasive adenocarcinoma. And the patient was given surgery again.

***Conclusion***: India ink is the most commonly used in forging technique and it has been reported that marking with India ink is 98% noticeable in laparoscopy. If our patient had colonoscopic marking before surgery, this negative result would not be encountered and the patient would not go to surgery for the second time.

***Keywords:*** Polyp, colon marking, adenocarcinoma

***PP-210***

## *Co-morbidity of cystic fibrosis and celiac disease in 15 year girl*

**Tsitsi Parulava[1], Maia Kherkehulidze[2], Ia Khurtsilava[1]**

*[1]Tsitsihvili Pediatric Hospital, Georgia*
*[2]State Medical University*

***Background/Aims:*** Cystic fibrosis (CF) is one of the most common life-threatening autosomal recessive disorder in Caucasian population. Individuals with CF have seen significant increases in life expectancy in the last 50 years. Celiac disease (CD) prevalence rates range from 1: 133 – 1 : 300. Since both CD and CF cause intestinal malabsorbtion, in the majority of cases it is difficult to identify comorbidity of this 2 diseases and patients can remain undiagnosed for a long time. The chance of the co morbidity of this two conditions is 1 : 2 000 000-1 : 5 900 000. We aim to present rare case of co morbidity of CF and CD.

***Materials and Methods:*** We described a case in which CD diagnosis was made prior to the CF diagnosis.

***Results:*** 15 year old girl was diagnosed CD at the age 6 years based on clinical features (poor weight gain, loose and fatty stools, fatigue, abdominal pain improved after introduction of gluten-free diet), serological screening and duodenal biopsy. At the age 13 patient presented with polydipsia and polyuria and was diagnosed diabetes mellitus. At the same age patient had first pneumonia and radiology revealed bronchiectasis. Childs anthropological data was within normal age limits (height and weight on 10 centile zone) and the girl had no respiratory symptoms and signs of malabsorbtion. Fat-soluble vitamin status showed no significant changes. The only manifestation was mild iron deficiency and reduced ferritin level. Due to bronchiectasis sweet chloride test was conducted, that show increased level of chloride 72mmol/l. The mutation c3185T>c/c708dupTpGln237Serfs21 was found.

***Conclusion:*** Even co morbidity of CF and CD is rare, we suggest that serological screening for CD should be included in the diagnostic work-up of CF patients mostly who have abnormal nutritional status and gastrointestinal symptoms.

***Keywords:*** Celiac disease, cystic fibrosis, diabetis

---

***PP-211***

## *Rhenium tare-as a treatment for hepatocellular cancer*

**Jeffey George**

*Aster Medcity Kochi, India*

***Background/Aims:*** Trans arterial Radio Embolisation is a bridging treatment for Hepatocellular cancer (HCC). It can also be a salvage treatment in unresectable HCC due to poor liver reserves, poor performance status and in patients with HCC and portal vein thrombosis (PVT). Rhenium (Re-188) is a high energy beta emitter isotope from Tungsten 188/Rhenium 188 generator. Re-188 HDD ( Lipiodol) (4-hexadecyl-1,2,9,9-tetramethyl-4,7-diaza-1,10-decanethiol) is used for HCC treatment.

***Materials and Methods:*** HCC with Barcelona Clinic Liver Cancer B and C, Portal vein thrombosis (PVT), failure of Transarterial chemoembolisation, Large tumor either unilobar or bilobar with adequate liver reserves were included. 33 patients were included. 27 were BCLC C with PVT and 4 patients were HCC without PVT. Noncirrhotic HCC with PVT were seen in 2 patients. Tumor size was less than 5 cm in 6 patients, more than 5 cm in 18 patients and diffuse disease in 9 patients.Superselective

cannulation of feeding vessels done for TARE.Angiogram revealed a characteristic tumor blush, adequate dose of Rhenium was injected and feeding vessels embolised with gel foam. A repeat CT/MRI was taken at 6 weeks to asses response to treatment.

***Results:*** nRESIST criteria was used for assesing treatment response. Good response was seen in n=5(15.2%), partial response in n=4(12.1%), stable disease in n=8(24.2%), progressive disease in n=8(24.2%), lost to follow up in n=5(15.2%) and response early to comment in n=3(9.1%). In those with partial response or stable disease, the time to progression was 4 months.Rhenium upto 3 mci/ml was tolerated without much side effects.CHILD stage, volume of the lesion and amount of Rhenium mainly determined the response. Follow up upto 10 months done for those with good and partial response. Side effects of TARE noted were mild fever, transaminitis which subsided with symptomatic measures.

***Conclusion:*** Rhenium TARE is an effective approach in HCC treatment as a palliative modality in view of ite relatively low cost, attractive physical properties and simpler process.

***Keywords:*** TARE, HCC, rhenium

---

***PP-212***

## *Macrophage activation syndrom, rare cause of acute liver failure with uncertain prognosis*

**Jan Brezina, Lukas Bajer, Peter Macinga, Pavel Wohl, Julius Spicak, Pavel Drastich**

*Institute of Clinical and Experimental Medicine, Czech Republic*

***Background/Aims:*** Macrophage activation syndrome (MAS), also known as secondary hemophagocytic lymfohistiocytosis (HLH) is poorly described life-threatening condition. It is caused by excessive activation of immune system with subsequent pro-inflammatory environment resulting in hemophagocytic macrophages appearance in various organs. Clinically, MAS is characterized mainly by fever, cytopenia, hepatosplenomegaly and elevated levels of circulating ferritin. MAS can develop into acute liver failure (ALF) with poor prognosis.

***Materials and Methods:*** We retrospectively analysed patients referred to our transplantation centre with ALF in which the diagnosis of MAS was confirmed by histology. The analysis was focused on diagnosis leading to MAS, survival, transplantation outcome and clinical, laboratory and histological findings.

***Results:*** From January 2005 to November 2018, we found five patients with MAS referred to our centre with ALF. The primary cause was Epstein-Barr virus (EBV) infection in three cases and adult Still disease in two cases. All five patients had highly elevated levels of circulating ferritin (in average 20208 μg/l), leukocytosis and thrombocytopenia. All patients had at least one negative bone marrow or lymph node examination prior to definitive diagnosis of MAS. All five patients were treated with high-dose corticosteroids. Three patients met Kings College criteria for urgent liver transplantation. Two of them were transplanted. Despite intensive therapy based on mechanical ventilation, continuous renal replacement therapy and circulation support, their clinical condition further deteriorated and all three patients died on average 38 days after symptom onset. At the autopsy, hemophagocytic macrophages have been identified in multiple organs. Two patients who responded to corticosteroid therapy are in long-term remission after specialized haematological treatment with etoposide.

***Conclusion:*** Macrophage activation syndrome as a rare cause of acute liver failure has high mortality, it is difficult to diagnose and even more difficult to treat. Our case studies suggest that when the patients with MAS meet Kings College criteria, their prognosis is uncertain despite the successful liver transplant. Therefore, it is important to carefully consider liver transplantation in the case of MAS diagnosis.

***Keywords:*** Liver failure, Macrophage activation syndrome, liver transplantation

***PP-213***

## *Gastrointestinal amyloidosis: An unusual cause of acute intestinal pseudo-obstruction*

**Panu Wetwittayakhlang, Pimsiri Sripongpun, Sawangpong Jandee**

*Division of Gastroenterology and Hepatology, Department of Internal Medicine, Prince of Songkla University, Thailand*

***Introduction:*** Amyloidosis of the gastrointestinal tract, characterized by forming pathological protein deposits-amyloid in tissues, with biopsy-proven is rare. The gastrointestinal amyloidosis most commonly resulted from chronic inflammation (AA amyloidosis), hematologic malignancy (AL amyloidosis), and end stage renal disease (Beta-2 amyloidosis). The deposition of abnormal proteins interferes with gastrointestinal organ structure and function.

***Case:*** A 66-year-old male with medical history of diabetes mellitus, presented to the hospital with change in bowel habit for 1 month followed by diarrhea 3-4 times per day with colicky pain and abdominal discomfort for 3 days. The physical examination revealed marked abdominal distension, visible peristalsis, hyper-active bowel sound and generalized mild tenderness. There were no hepatosplenomegaly, mass nor shifting dullness. The plain abdominal film showed marked diffuse disproportional dilatation of small bowel with different height of air-fluid level in the same loop. Computer tomography (CT) showed small bowel obstruction which revealed no gross mass nor cause of obstruction but long segment narrowing of ileum was seen. He underwent colonoscopy and it showed diffuse edematous mucosa of ileum and colon without mechanical obstruction but loss of normal bowel peristalsis. The random biopsy was performed for pathological diagnosis which reported severe amyloidosis of terminal ileum and colon with positive for classic apple green birefringence with Congo red stain. A bone marrow biopsy was performed to exclude multiple myeloma.Thus, primary light chain (AL) amyloidosis of the small intestine was diagnosed. The patient's symptomswere relieved after treated with melphalan and prednisone.

***Conclusion:*** Amyloidosis confined to the GI tract is rare. Small intestinal bowel is the greatest when the GI tract is affected by amyloid. Acute intestinal pseudo-obstruction is a rare presentation of gastrointestinal amyloidosis, which mimics the surgical condition.

***Keywords:*** Gastrointestinal amyloidosis, acute intestinal obstruction, intestinal pseudo-obstruction

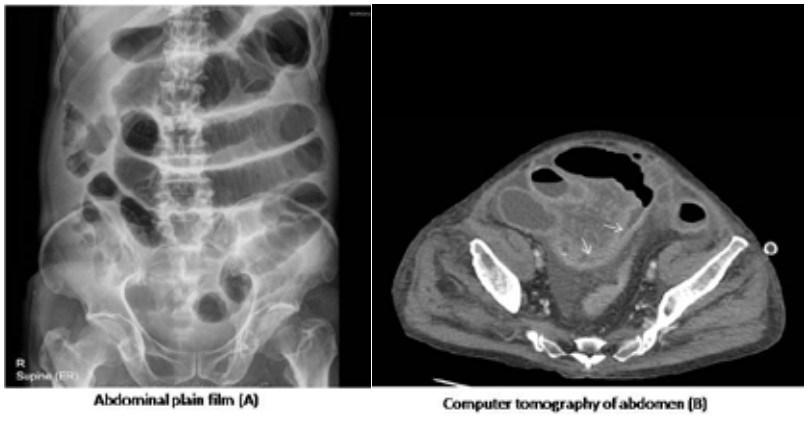



**Figure 1.** (Left) Plain abdominal film showed generalized marked disproportional dilatation of small bowel, without large bowel dilation. (Right) CT scan showed long segment abdominal wall thickening of ileum.

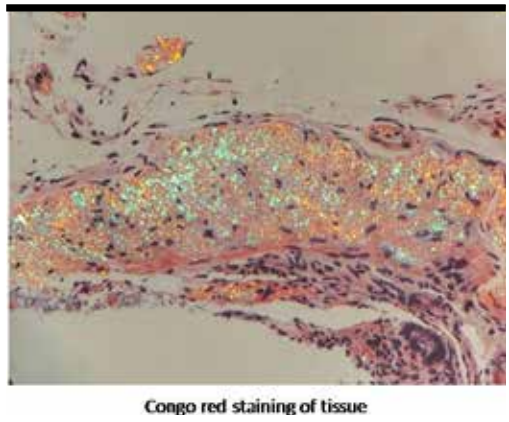



**Figure 2.** Congo red strain showed classic apple green birefringence.

***PP-214***

## *Liver involvement in inflammatory bowel disease-retrospective data from a tertiary center in north-eastern Romania*

**Georgiana-Emmanuela Gilcă-Blanariu, Gabriela Stefanescu, Manuela Ciocoiu, Anca Trifan**

*Grigore T Popa University of Medicine and Pharmacy Iasi, Romania*

***Background/Aims:*** Hepatobiliary manifestations and complications are considered common in inflammatory bowel disease (IBD) patients, potentially arising at any moment during disease evolution. Our aim was to evaluate the hepatobiliary manifestations and complications arising in IBD patients hospitalized In the 2nd Gastroenterology Department of a tertiary center in North-Eastern Romania during a 24 months period.

***Materials and Methods:*** We conducted a descriptive retrospective study with data collected from all patients with IBD, admitted in the 2nd Gastroenterology Department from the Sf Spiridon County Clinical Emergency Hospital, Iasi, from May, 2017 to April, 2019. Demographic data, clinical characteristics and biochemical parameters were reviewed.

***Results:*** The study population included 384 IBD patients(mean age 49.19±14.71 years), predominantly male patients (58.9%). A total of 266 (69,27%) were diagnosed with ulcerative colitis(UC) and 118(30,73%) with Crohn's disease(CD). The study group consisted predominantly of left-sided colitis(52.7%) and colonic CD cases(34.5%); 72,13% of patients were following 5-ASA treatment. Among the study group, 29.16%(112) patients presented hepatobiliary manifestations and/or complications. Liver steatosis was found in 108 patients(28,12%), being more prevalent among UC patients compared to CD patients(68,48% vs.31,52); 4 patients(1,04%) had associated primary sclerosing cholangitis, all of them with UC. No viral hepatitis reactivation or persistent hepatocytolisis syndrome was reported as being associated during IBD treatment.Lacking identification of viral hepatitis reactivation and persistant hepatocytolisis syndrome during IBD therapy may be related to the predominant use of 5ASA therapy, and less biological therapy and thiopurines, but could moreover reside in underreporting of these complications associated with IBD treatment.

***Conclusion:*** Liver and biliary tract-associated manifestations and complications in IBD patients are common and need better surveillance. The most frequent hepatic manifestation in the studied group was liver steatosis, while the identified prevalence of other hepatobiliary manifestations in IBD patients from our center was inferior to literature reports, especially regarding primary sclerosing cholangitis. It is important to raise awareness into better monitoring of liver function and early identifying potential associated hepatobiliary involvement in this patient category, both regarding the potential involvement during disease course and also eventual side effects of therapy.

***Keywords:*** Inflammatory bowel disease, liver steatosis, primary biliary cholangitis, extraintestinal manifestations

---

***PP-215***

## *A rare connection: Polyglandular autoimmune syndrome Type 3 presenting as autoimmune hepatitis*

**Duaa Abduljabbar, Omar Sharif**

*King Hamad University Hospital, Kingdom of Bahrain*

A 14-year-old female presented to the gastroenterology clinic due to incidental finding of deranged liver function tests. She is a known case of diabetes mellitus (DM) and hypothyroidism on treatment since 5 years with insulin basal insulin doses, and levothyroxine 100 mcg daily. The patient first presented to the emergency department with vagues abdominal pain and fatigue. Blood tests showed deranged liver function tests and hence was referrd to gastroenterology clinic. She was diagnosed with autoimmune hepatitis based on hepatocellular picture in liver enzymes elevation (ALP 377, ALT 424, AST 451 and GGT 118), ESR 63 mm/hr, ANA positive centromere pattern 191 u/ml, Anti smooth muscle antibody 640, immunoglobulin G 3945

mg/dL. However Anti liver-Kidney microsomal antibody was in an insignificant level. Abdominal US showed coarse hepatic echotexture having stippled pattern with increased periportal echogenicity, with possibility of hepatitis. A review of her diagnosed DM and hypothyroidism was done and showed uncontrolled type 1 DM confirmed by high HbA1C, and seropositivity towards anti-glutamic acid decarboxylase (332 IU/ml, 6+++). Immune thyroid disease diagnoses was made based on positive antithyroid peroxidase antibody of >1300 u/ml, at the time thyroid function tests were normal as the patient was already of treatment. The case presented showed a rare combination of three distinct autoimmune disases starting at young age. The patient was followed regularly in the clinic, and with the use of steroids and immunosuppression.

***Keywords:*** Polyglandular autoimmune syndrome, autoimmune hepatitis, immune hepatitis

---

***PP-216***

## *Long term changes in nutritional status after tumorassociated gastrectomy*

**Grabner Julia**

*FH Gesundheitsberufe OÖ, Austria*

***Background/Aims:*** The total prevalence of gastric cancer in Austria is 3797 in men and 3103 in women. In therapy, the partial or complete removal of the stomach plays the main role, which can lead to severe functional restrictions. Only through up-to-date knowledge and its application can dieticians detect deficiencies and other health risks after gastrectomy at an early stage and take countermeasures as a result. The present study investigates the following research question: How do the nutritional status and relevant haematological parameters change in the long term after a tumor-associated gastrectomy?

***Materials and Methods:*** To answer the research question, a systematic literature search was carried out in the databases PubMed, EMBASE, Cochrane Library and Epistemonikos as well as in specialist journals. Using appropriate tools, the study quality and the level of evidence were determined.

***Results:*** Weight loss, malabsorption and the associated malnutrition play a predominant role in all studies. Malnutrated patients have a significant lower overall survival. The results on changes in haematological and nutritional parameters are heterogeneous. Except for ferritin and triglycerides, however, these might decrease only slightly. The type of reconstruction also has only a minor effect. Some results show an increase in total protein and albumin compared to the preoperative state. The consensus is that blood parameters alone are not sufficient to accurately reflect nutritional status. The prevalence of postoperative anaemia is 40%. However, a sufficient amount of nutrient intake can be recovered within three months.

***Conclusion:*** Weight loss, malabsorption and as a result, malnutrition and anemia are major problems after gastrectomy. Interdisciplinary monitoring is necessary to detect deficiencies at an early stage. Further european studies with a focus on maldigestion and malabsorption are necessary.

***Keywords:*** Gastric cancer, gastrectomy, nutritional status

---

***PP-217***

## *Treatment patterns in management of inflammatory bowel disease in Belarus: A national survey of gastroenterologists and coloproctologists*

**Aliaksandr Varabei[1], Julia Gorgun[1], Andrei Yukhnavets[2], Olga Krasko[3], Sergey Golubev[2]**

*[1]Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus*
*[2]Representative Office Takeda Osteuropa Holding Gmbh, Minsk, Belarus*
*[3]Bioinformatics Laboratory of National Academy of Sciences of Belarus, United Institute of Informatics Problems, Minsk, Belarus*

***Background/Aims:*** There are inter-country and inter-specialty heterogeneities in adoption of optimal approaches for inflammatory bowel disease (IBD) management, the reasons being not fully understood. Data on real-world clinical practice are particularly scarce in the Eurasian region.

***Materials and Methods:*** A cross-sectional national survey of hospital-based physicians treating IBD in Belarus was performed from January till April 2018. Responses from completed anonymous questionnaires on typical treatment patterns were collected and analyzed descriptively.

***Results:*** 78 physicians were approached and 68 (87%) responded including 41 internists-gastroenterologists (GE) and 27 surgeons – coloproctologists (CP). GE administer corticosteroids (CS) in 60% [35; 70] (median [Q25; Q75]) of patients, while CP – in 70% [23; 90] of patients. 49% of GE and 82% of CP (p=0.01) reported evaluating CS efficacy after 1-2 weeks and 27% and 0%, respectively, after 2 months. 37% of GE and 0% of CP decrease CS dosage after 1 week, while 20% and 33%, correspondingly,-after 2 weeks (p<0.001). GE and CP estimated that 7% and 22% of their patients, respectively, used CS for more than 4 months (p=0.001). If CS use is not effective, 24% of GE and 74% of CP practice CS dosage escalation (p<0.001); while 51% of GE and 41% of CP are ready to initiate biologic. Immunomodulators (IM) are used by GE in 20% [10; 25] of patients, but by CP-only in 5% [0; 10] (p=0.003). 20% of GE evaluate IM efficacy after less than 1 month of treatment and 37% of GE recommend withdrawal of IM before 3 years even if it is effective. If IM use is not effective, 73% of GE and 37% of CP are ready to initiate biologic (p=0.005). The high purchase cost and lack of clinical experience are leading barriers for wider use of biologic (Table 1). Efficacy, but not safety, is cited as a major advantage of biologics (Table 2). 76% of GE and 84% of CP expressed dissatisfaction with current treatment capacities available for IBD management in Belarus.

***Conclusion:*** Important treatment inertia is revealed in terms of extensive CS use and delayed initiation of biologic, which are more common for CP. IBD physicians in Belarus are open to innovative treatment implementation, which is restrained by pharmacoeconomic factors. Tailored medical education on effectiveness/safety profiles of different treatment modalities in IBD may result in more rational use of CS and IM and wider adoption of novel biologic agents.

***Keywords:*** Inflammatory bowel disease, drug utilization, biologic therapy

***Table 1.*** The main barriers to prescribing biologics by GE and CP in Belarus.

| Barriers to prescribing biologics | GE % | CP % | Fishers Exact Test |
|---|---|---|---|
| Patients' refusal | 7 | 0 | 0.271 |
| Information deficit | 5 | 19 | 0.105 |
| Lack of experience | 29 | 26 | >0.99 |
| Safety | 15 | 4 | 0.230 |
| High cost | 78 | 74 | 0.774 |

***Table 2.*** Physicians' opinions on the main advantages of biologics in IBD.

| Main advantages of biologics | GE % | CP % | Fishers Exact Test |
|---|---|---|---|
| Effectiveness | 83 | 74 | 0.541 |
| Safety | 32 | 22 | 0.425 |
| Prevention of long term complications | 61 | 37 | 0.082 |
| Innovativeness | 22 | 33 | 0.401 |

***PP-218***

## *A case of primary omental infarction in an adult female presenting as right upper quadrant pain*

**Sujata May Mansukhani, Virgilio Banez**

*Manila Doctors Hospital, Manila, Philippines*

***Introduction:*** Primary omental infarction is a rare cause of abdominal pain which may mimic other disease entities hindering timely management. Only over 400 cases have been documented in literature and as of this writing, there are no published local data.

***Case:*** A 55-year old hypertensive Filipino female presented with a 5-day history of epigastric pain radiating to the right upper quadrant. Initial examination revealed direct right upper quadrant tenderness and positive Murphy's sign. Initial impression was acute cholecystitis. Laboratories revealed leukocytosis, elevated total and indirect bilirubin and urinary tract infection. Abdominal ultrasound showed fatty liver. Due to persistence of pain and non-specific ultrasound findings, MRI of the upper abdomen was done revealing a well-defined lobulated mass-like lesion with thin rim enhancement in the right upper anterior peritoneal cavity with ascites, inflammatory changes and edema of the overlying subcutaneous fatty layer indicative of either omental infarction or panniculitis.

***Conclusion:*** Exploratory laparotomy revealed a concavity between the subcostal area and segment IV/V of the liver where the omentum was trapped. The omentum was hyperemic, caked with central fat necrosis and adherent to the anterior abdominal wall, greater omentum and proximal transverse colon. Omentectomy was done. Our patient was discharged stable after 3 days.

***Keywords:*** Case report, omental infarction, primary omental infarction, omental torsion

---

***PP-219***

## *Pathogenetic aspects of non-alcoholic fatty liver disease in metabolic syndrome*

**Fazilathon Ariphodjayeva[1], Ulugbek Kayumov[2]**

*[1]Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan*
*[2]Tashkent Institute of Postgraduate Medical Education, Tashkent, Uzbekistan*

***Background/Aims:*** The prevalence of non-alcoholic fatty liver disease (NAFLD) in various countries is 10-24% in the general population and 55-74% among people with increased body weight (Ivashkin V.T. et al., 2016; Kolesnikova L.I. et al., 2018). Numerous studies in this area have shown that NAFLD, including non-alcoholic steatohepatitis (NASH), is closely related to the components of the metabolic syndrome (MS) (Williams T. et al, 2015; Katsiki N. et al, 2018). Modern ideas about the pathogenesis of NAFLD allows us to distinguish two stages of the development of the two-hit model. This accumulation of triglycerides in liver tissue against the background of blocking β-oxidation of triglycerides in hepatocytes and secondary aggression by secreted pro-inflammatory cytokines like TNF-α and IL-6, which causes the transition of steatosis to steatohepatitis (Podimova S.D, 2016; Bogomolov P.O., et al., 2017). The rate of development of steatohepatitis in cirrhosis of the liver is possibly closely related to the state of the functional state of the antioxidant system of the body and genetic predisposition (Pavlov C.S. et al., 2017; Bogomolov, P.O. et al., 2018). The aim of our study was to study the production of cytokines IL-6, TNF-α and the functional state of the antioxidant capacity of NAFLD patients at the stage of steatohepatitis.

***Materials and Methods:*** We examined 114 patients with a diagnosis of NAFLD on the background of MS. Males accounted for 43%, females 57%. The average age was 47.2 years. Selection of patients with NAFLD conducted by random sampling

including family history, heredity, smoking status and alcohol use, epidemiological history of viral hepatitis, level of physical activity, diet, psychological and diabetic status, a survey on the course of hypertension and related diseases. All patients underwent a comprehensive examination including clinically, biochemical and instrumental (ultrasound, liver elastometry) examination methods. Along with this, in patients with NAFLD, the level of production of IL-6, TNF-α was determined using test kit "Cytokine" and "Protein Contour" (St. Petersburg), based on the ELISA method. Total antioxidant capacity was performed by ELISA using test kits manufactured by Cayman Chemichal.

***Results:*** Analysis of the studies showed that in patients with NASH, the level of IL-6 production was 4.21±0.20 pg/ml, which turned out to be 15.5 times higher than healthy ones (0.270±0.02 pg/ml). The production of TNF-α in this contingent was 0.704±0.03 pg/ml with healthy indicators of 0.049±0.003 pg/ml, which was 14.3 times higher than the control group. At the same time, the total antioxidant capacity of the blood serum of patients in the main group was 0.079±0.03 mM/l, with a healthy index of 0.380±0.03 mM/l, which was 4.8 times less than that of healthy people.

***Conclusion:*** Thus, in patients with NASH in MS, a pronounced activation of IL-6 and TNF-α production is observed against the background of a decrease in the total antioxidant capacity of serum, which in our opinion is the basis for the inclusion of antioxidant drugs in the pathogenetic therapy of this category of patients.

***Keywords:*** Non-alcoholic fatty liver disease, metabolic syndrome, steatohepatitis, steatosis

Laboratory indicators of patients with NASH

| Indicators | Healthy, n=20 | NASH, n=114 |
|---|---|---|
| IL-6, pg/ml | 0.270±0.02 | 4.21±0.20 * |
| TNF-α, pg/ml | 0.049±0.003 | 0.704±0.03 * |
| Total antioxidant capacity, mM/l | 0.380±0.03 | 0.079±0.03 |

Note: *-p<0.05 the presence of significant differences between the compared groups

***PP-220***

## *Single centre comparison of FIB-4 score and fibroscan as marker of liver fibrosis in HCV infection*

**Farid Ahmad Toor, John Ryan**

*Beaumont Hospital Dublin, Beaumont, Ireland*

***Background/Aims:*** In Hepatitis C virus (HCV) infection, non-invasive tests have replaced liver biopsy in the staging of disease. These include the FIB-4[1]score, which combines age with biochemical values (AST, platelet count, ALT), and liver stiffness measurement (LSM) by transient elastography (Fibroscan®), both of which can reliably exclude advanced fibrosis. To compare the agreement of FIB-4 scoring with Fibroscan®in the staging of fibrosis in HCV patients pre-treatment.

***Materials and Methods:*** We evaluated 50 HCV patients referred to Beaumont Hepatology Unit for treatment. The FIB-4 score (calculated using an online calculator) and LSM by Fibroscan®were performed as part of their standard clinical care. A FIB4 score<1.45 has a negative predictive value of 90%, and >3.25 a specificity of 92%, for advanced fibrosis. LSM values of<7.0kPa and ≥12.5kPa were deemed to indicate an absence of significant fibrosis, and advanced fibrosis, respectively.

***Results:*** Of the 50 patients, 24(48%) were male and 26(52%) female. The age range was 33-78 years. Of the 50 HCV patients, 13 (26%) had a FIB4 score<1.45, while 13 patients (26%) had a score >3.25. The remaining 24 (48%) fell in between.

In the 13 patients with a FIB-4 score<1.45, the mean (+/-SD) LSM was 5.4kPa (+/-1.5), with a LSM 7.1-8.1kPa in only 2 of the 13 patients. Patients with a FIB-4 >3.25 had a mean (+/-SD) LSM of 17kPa (+/-9.7); of these, 2 patients had a LSM<7kPa, 3 were between 9.2-11kPa, and the remaining 8 had LSM values between 12.4-33kPa. The LSM values for the 24 patients with FIB-4 scores between 1.45 and 3.25 ranged from 4 to 25kPa. A modest correlation was seen between LSM and FIB-4 scores in the overall cohort (rho=0.48, p=0.0004).

***Conclusion:*** In this single centre study of HCV patients, FIB-4 scoring demonstrated good utility for ruling out significant fibrosis and for ruling in advanced fibrosis as indicated by Fibroscan®.However, FIB-4 score was unreliable in 52% of cases, highlighting the need for a second non-invasive test to appropriately stage liver disease in the majority of patients.

*1. Imbert-Bismut F, Ratziu V, Pieroni L, Charlotte F, Benhamou Y, Poynard T. Biochemical markers of liver fibrosis in patients with hepatitis C virus infection: a prospective study. Lancet2001; 357: 1069–1075.*

---

***PP-221***

## *Association of blood homocysteine levels with C677T and A1298C MTHFR gene polymorphisms in patients with NASH*

**Nataliia Kuchma**

*Sumy State University, Sumy, Ukraine*

***Background/Aims:*** It has been reported that increasing the level of homocysteine may affect the metabolism of lipids in the liver cells and provoke the development of fatty infiltration of hepatocytes. Frequent genetic mutations in enzymes that take part in folate metabolism can lead to increased levels of homocysteine in plasma. The purpose of our work was to investigate the connection between the C677T and A1298C polymorphisms of the methylenetetrahydrofolate reductase (MTHFR) gene containing homocysteine plasma in patients with non-alcoholic steatohepatitis (NASH).

***Materials and Methods:*** We examined 86 patients with NASH. The control group consisted of 40 practically healthy persons. The determination of homocysteine was carried out by ELISA, the determination of allelic polymorphism was carried out by PCR with the detection of results by hybridization-fluorescence method in real-time.

***Results:*** The frequency of the C677C, C677T and T677T genotypes of the MTHFR gene among patients with NASH and the control group was 53,5% 31,4%, 15,1% and 50%, 35%, 15% respectively. The frequency of A1298A, A1298C, C1298C genotypes of patients with NASH and the control group was 55,8%, 30,2%, 14% and 50%, 42,5%, 7,5% respectively. The plasma serum homocysteine level was higher in NASH patients as compared to control subjects (18.4±3.72 μmol/l, and 9.7±0.47 μmol/l ($p<0.05$). The concentration of homocysteine in blood plasma in patients with C677C, C677T and T677T genotypes of the MTHFR gene was 14.8±2.27, 19.7±2.67 and 25.9±2.98 μmol/l, respectively ($p<0.05$). The concentration of homocysteine in blood plasma in patients with A1298A, A1298C, C1298C genotypes was 18.8±2.39, 16.7±1.99 and 17.3±2.55 μmol/l, respectively ($p>0.05$). We detected a reliable association between the frequency of genotypes for the C677T polymorphism of the MTHFR gene depending on the content of homocysteine. The T677T genotype carriers had a significantly higher homocysteine concentration compared to carriers of the C677T and C677C genotypes. We did not reveal a reliable association of plasma homocysteine with A1298C polymorphism of the MTHFR gene.

***Conclusion:*** Patients with NASH, which were homozygous for the T677T genotype of the MTHFR gene, had a significantly higher homocysteine plasma level. The MTHFR C677T polymorphisms may be genetic risk factors for the development of NASH

***Keywords:*** Homocysteine, non-alcoholic steatohepatitis, methylenetetrahydrofolate reductase

***PP-222***

## *Anxiety and depression in inflammatory bowel disease patients*

**Adea Kocollari[1], Marsela Sina[1], Skerdi Prifti[1], Arli Kristo[2]**

*[1]University Hospital Center Mother Teresa, University Clinic of Gastrohepatology, Tirana, Albania*
*[2]University Hospital Center Mother Teresa, School of Medicine, Tirana, Albania*

***Background/Aims:*** The presence of anxiety and depression is higher in patients with chronic diseases compared to the general population. The aim of our study was to show their presence in Albanian patients with inflammatory bowel disease (IBD), which includes Crohn's disease (CD) and ulcerative colitis (UC) and to correlate it with the disease severity.

***Materials and Methods:*** This is a prospective study of IBD patients, followed-up from February 2017 to March 2019 at the University Hospital Mother Theresa, in Tirana. The presence of anxiety and/or depression was determined using the Hospital Anxiety and Depression Scale, compiled under supervision of medical staff. Patients with known mental illness followed by Psychiatry were excluded. Multivariable analysis was used to determine associations between patient characteristics and depression and/or anxiety. Statistical analysis was made with Chi-square (p-value, significance level: 0.05).

***Results:*** 42 IBD patients (24F:18M), on treatment with anti-TNF since July 2016. Of these: 8 patients (19%) with CD and 34 patients (81%) with UC. Among these, there were 18.7% with depression and 34.3% with anxiety, with a rate of 40.6% of patients suffering from depression and/or anxiety. Females were more likely to have anxiety with a significantly rate of 63%. UC patients were also more likely to have depression and/or anxiety: 84.6%. Correlation coefficient (r) between depression and disease activity was:-0.314, while for anxiety, it was:-0.298 (p values respecitively: 0.03 and 0.04).

***Conclusion:*** A significant number of patients with IBD, suffer from depression and/or anxiety. Patients with a more severe disease activity are at a higher risk, and this may suggest that it can be important to start screening all the IBD patients with this questionnaire in order to evaluate their psycho-emotional situation and eventually refer them to the psychiatrists, if necessary.

***Keywords:*** Depression, anxiety, IBD

---

***PP-223***

## *Transanal endoscopic microsurgery-oncologically safe and effective for T1 cancers*

**Rathin Gosavi, Martin Chin, Paul Simpson, Satish Warrier, Stephen Bell, Chip Farmer**

*Alfred Health, Australia*

***Background/Aims:*** Transanal endoscopic microsurgery (TEMS) appears to be a safe and less invasive alternative to radical surgery, endoscopic mucosal resection (EMR) or transanal endoscopic submucosal resection for malignant rectal polyps. This study aims to analyse the role of TEMS, in terms of morbidity and oncological safety, for the definitive management of low rectal cancers in our institution.

***Materials and Methods:*** We performed a retrospective review of patients who underwent TEMS for the management of their malignant polyps at our institution between 2011 and 2018. Patient characteristics, histological findings and further oncological resection requirements were analysed.

***Results:*** A total of 162 procedures were performed over the study period. Majority of patients had histologically benign lesions (71%) with an overall complication rate of 3.7% with only one grade III complication (0.62%). Of the 40 malignancies identified, 20 had negative margins of which 18 proceeded to subsequent oncological resections. Average length of stay in

hospital was 1.2 days. Mean follow up period was 32.4 months; with all patients receiving a flexible sigmoidoscopy 6 months and a colonoscopy 12 months post procedure.

***Conclusion:*** Our data demonstrates that the TEMS procedure is a safe and effective method of managing malignant rectal polyps. Diligent endoscopic follow up is required, especially for those with negative or close margins. TEMS is particularly successful in treating specific T1 rectal cancers with favourable features as it does not jeopardizing long term oncological outcomes; however, the main concern remains the lack of adequate lymphadenectomy.

***Keywords:*** Transanal endoscopic microsurgery, TEMS, colorectal cancer

---

***PP-224***

## *Bariatric surgery: General description of procedures and results. Multicentric study*

**Sandra Milena Rojas Molina, Hector Conrado Jimenez, Rolando Medina, Juan Felipe Sanjuan**

*Universidad Surcolombiana, Colombia*

***Background/Aims:*** Obesity is a chronic illness identified in children, adolescents, and adults worldwide, defined as a body mass index (BMI) ≥30 kg/m$^2$. The surgical procedures performed to manage obesity are collectively referred to as metabolic or bariatric surgery. The risk of developing complications rises with increasing adiposity, while weight loss can reduce the risk or improve medical conditions, such as for hypertension and diabetes. Bariatric surgical procedures affect weight loss through two fundamental mechanisms: malabsorption and restriction. There is also growing recognition that bariatric surgical procedures contribute to neurohormonal effects on the regulation of energy balance and hunger control. Complications following surgical treatment of severe obesity vary based upon the procedure performed and can be as high as 40 percent. Due to the high surgical volume, improving the safety of these operations has become a high priority, leading to the development of strict criteria for center accreditation, guidelines for safe and effective bariatric surgery, and careful monitoring of surgical outcomes.

***Materials and Methods:*** A retrospective cohort analysis of patients who underwent bariatric surgery in two reference centers. We use relative and absolute frequencies to summarize the categorical variables, we use the median and the interarlitical range for the continuous variables. the chi-squared test was applied to look for associations between variables.

***Results:*** We included 160 patients who underwent gastric sleeve bariatric surgery and gastric bypass in 2 reference centers. In group I, 86 patients were included, of which 80.2% were men with a mean age of 36.8 years, in group II, 74 patients were included, 66.2% were women with a mean age of 38.4 years., in both groups associated pathologies such as arterial hypertension and type II diabetes mellitus were found, with a BMI (body mass index) of 46.14 in group I and 41.1 in group II, gastric bypass was performed in a greater percentage in group I 74.4% compared to group II where greater sleeve gastric was performed 83.8%, greater intraoperative bleeding in group II 12.2% compared to group I 4.6%, in terms of Postoperative complications showed greater suture dehiscence in group I 2.3% compared to group II 1.4%, fistulas group I 2.3% and group II 1.4%. Regarding mortality in group I 1.2% and group II, none was presented.

***Conclusion:*** Obesity is a chronic condition throughout the world that affects children, adolescents and adults. Adults with a body mass index (BMI) ≥40 kg/m 2 without concomitant disease or a BMI of 35.0 to 39.9 kg/m 2 with at least one serious comorbidity, such as type 2 diabetes or hypertension, are candidates for surgery bariatric procedure. The postoperative complications in the different groups studied are very similar and finally depend on the experience of each surgical group. An adequate preoperative evaluation must be performed to prevent possible risks that may arise during the surgical act. Bariatric surgery continues to be an adequate method for controlling obesity.

***Keywords:*** Obesity, bariatric surgery, complications

***PP-225***

## *Gastric cancer comparison between open and laparoscopic surgery*

**Sandra Milena Rojas Molina, Rafael Hernando Pino, Luis Gerardo Vargas, Juan Felipe Sanjuan**

*Universidad Surcolombiana, Colombia*

***Background/Aims:*** Gastric cancer is one of the most common cancers in the world. Annually in the United States, 22,220 patients are diagnosed, approximately, of which 10,990 are expected to die. The global incidence of gastric cancer has declined rapidly in recent decades. However, in countries such as Japan, China, Costa Rica, Colombia, Chile and Ecuador, gastric cancer includes lists of causes of malignant neoplasms. In Colombia, it is the leading cause of cancer death in men and the second in women. Surgical management depends on the clinical stage of the disease. By the time of diagnosis, more than 80% of patients with gastric cancer are already in the more advanced stages, which has dramatically improved their survival. Five-year survival for early gastric cancer is close to 90%, unlike advanced gastric cancer with surgical management, which is around 5%.

***Materials and Methods:*** Observational study of a retrospective cross-sectional cohort.

***Results:*** Initially during the study period, 389 patients with a diagnosis of gastric cancer were found, 60 patients were excluded due to incomplete clinical histories and 49 patients who did not undergo surgical management by advanced stage. We included 280 patients, of whom 222 underwent an open surgical procedure and 58 underwent laparoscopy, mean age 62 years, male sex in 65.4%, location of distal gastric lesion in 84%, without pathological history in 72, 2%, arterial hypertension in 18.2%, borman III in 62.2% in open surgery, borman III in 67.2% in laparoscopy, histological type more common in both groups the intestinal, in open surgery the main surgical procedure was total gastrectomy in 47.7%, in the laparoscopic group subtotal gastrectomy in 55.2%, average surgical time in open surgery of 131 minutes, laparoscopic surgery 145 minutes, metastasis in open surgery in 25.2%, laparoscopic surgery 15.5%, intraoperative complications in open surgery in 6.5% more common bleeding in 3.2%, intraoperative complications by laparoscopy 1.7% (bleeding), postoperative complications open surgery 9.8% (peritonitis 2, 7%), laparoscopic in 8.6% (peritonitis 5.2%), final histopathological classification in open surgery 27.5% Stage IV, laparoscopy 19% Stage II, 17.2% Stage III. Average hospital stay of 7 days. In open surgery, 27.5% presented relapse, laparoscopic surgery 27.6%. There were 31.5% open surgery vs 17.2% laparoscopic surgery. Chi-square test was performed finding a statistically significant relationship between: histopathological classification and death with a p of 0.000, surgical time and hospitalization p of 0.000, metastasis and follow-up in months p of 0.000, follow-up in months and death p of 0.000, procedure surgical and death p of 0.000, surgical procedure and surgical time p of 0.000, surgical procedure and hospital stay p of 0.000.

***Conclusion:*** Gastric cancer remains a very common condition in our environment, which is diagnosed in very advanced stages, which makes it impossible to manage it completely, it reduces survival and, in many cases, makes surgical intervention impossible due to advanced tumor involvement. Within the studied groups we did not find significant differences, nor correlation between type of surgical procedure and complications.

***Keywords:*** Gastric cancer, open surgery, laparoscopic surgery

---

***PP-226***

## *Nonalcoholic fatty liver disease: The role of iron metabolism disorders*

**Dzmitry Adzinets, Alena Ausianik, Uladzimir Pyrachkin, Nataliya Hlutkina, Andrei Matveichyk, Siarhei Litvinovich**

*Grodno State Medical University, Belarus*

***Background/Aims:*** Non-alcoholic fatty liver disease (NAFLD)-a spectrum of characteristic changes in the liver, predominantly with large-droplet steatosis in individuals who have not consumed alcohol in quantities that cause liver damage.

There are many causes of liver steatosis, however, iron overload (IO) is considered as one of the candidates for the role of the pathogenesis factor of NAFLD and non-alcoholic steatohepatitis (NASH). Aim: to determine the frequency and severity of dismetabolic iron overload syndrome serological markers in patients with NAFLD.

***Materials and Methods:*** The study included 50 people aged 31 to 79 years (Me-57 years), including 17 men (34%) and 33 women (66%) with the presence of NAFLD. To assess the disorders of iron metabolism, the level of serum iron (SI), serum ferritin (SF), transferrin, hepcidin was determined in all patients, and the ratio of iron transferrin saturation (TFS) was calculated

***Results:*** The concentration of SF as the main indicator of the pancreas exceeded the upper limit of normal for 21 people (42%). At the same time, the concentration of SI was in the range of 14.6–23.9 μmol/l (Me=18.9) and exceeded the upper limit of normal in only 4 people (8%). TFS exceeded the norm in 1 patient (2%). The level of serum hepcidin was increased in 24 of the 50 patients (48%), with the maximum value exceeding the upper limit of the reference interval by more than 3 times. Among patients with NAFLD, a group of patients with NASH was identified (n=18), in which the indicators of ferrokinetics were evaluated. In patients with NASH compared with the general group, an increase in the levels of SI (17%), SF (61%), and TFS (6%) is more common. Regarding hepcidin, the deviations were similar to the general group.

***Conclusion:*** 1. Signs of dismetabolic iron overload syndrome were established in 42% of patients with NAFLD and 61% in the selective group with NASH. 2. The level of serum hepcidin is increased in 48% of patients with NAFLD and 50% with NASH. Iron is a fundamental chemical element in the biology of organisms living in an oxygen-rich environment. However, the great biological advantages of this element are combined with serious negative properties-the generation of free radicals and lipid peroxidation, thereby supporting and increasing oxidative stress. Since the liver is the main organ depositing iron, the problems associated with the toxic effect of this element will arise primarily in it.

***Keywords:*** Non-alcoholic fatty liver disease, non-alcoholic steatohepatitis, iron overload, serum ferritin

---

***PP-227***

## *Content of iron in the liver in patients with nonalcoholic fatty liver disease, died from cardiovascular reasons*

**Dzmitry Adzinets, Alena Ausianik, Uladzimir Pyrachkin, Nataliya Hlutkina, Andrei Matveichyk, Siarhei Litvinovich**

*Grodno State Medical University, Belarus*

***Background/Aims:*** Fatty liver infiltration is a frequent occurrence due to the widespread causes and conditions causing it, and the most common is non-alcoholic fatty liver disease (NAFLD). As one of the candidates for the role of the pathogenesis factor of NAFLD, iron overload (IO) is considered. Aim: to determine the frequency of morphological signs of iron overload in NAFLD in persons who have died of cardiovascular diseases

***Materials and Methods:*** The study included 80 sectional cases of deceased patients with cardiovascular diseases who had signs of metabolic syndrome and visual signs of fat in the liver. The study of the liver histopathology was carried out on sections of not less than 10 true or false lobules. During this study, the degree of steatosis and liver fibrosis, hemosiderin deposition (LGS) were determined. The iron content was evaluated by a semi-quantitative method according to the method of Y. Deugnier and B. Turlin. Assessment of the severity of fibrosis in the liver tissue was carried out semi-quantitatively using the method of D.E. Kleiner et al. (2005).

***Results:*** Fat in hepatocytes was detected in all examined liver tissue samples. Of the 80 cases in 75 (93.8%), the proportion of fat exceeded 5%, which was regarded as steatosis. Fibrosis was detected in 60 cases (75.0%, 95% CI 65.6-84.4), mainly in the portal sections of the lobules, in 5 cases cirrhosis was detected. Hemosiderin deposits in liver tissue were detected in 23 of 80 (28.8%, 95% CI 18.8-38.8) cases. Hemosiderin is a direct marker of the IO, but such studies are few, and the scatter

of results is large-from 0 to 50%. The total points of the total LGS content varied from minimal to moderate values, and in one case the value was close to the maximum (given the amount of hemosiderin, this case can be discussed in the context of hemochromatosis). Hemosiderin deposits are localized in both hepatocytes and mesenchymal tissue. Isolated parenchymal accumulation of hemosiderin was recorded in 7 cases, mesenchymal-in 5 (all with sinusoidal localization). The remaining cases were characterized by combined parenchymal-mesenchymal iron deposits.

***Conclusion:*** The study allowed us to establish a high frequency of iron overload (28.8%, 18.8-38.8) and liver fibrosis (75.0%, 95% CI 65.6-84.4, including 5 cases of liver cirrhosis) in individuals with NAFLD.

***Keywords:*** Non-alcoholic fatty liver disease, metabolic syndrome, iron overload, hemosiderin

---

***PP-228***

## *Hepatic abscess; Single hospital experience in northern Taiwan*

**Tin Tin Hlaing, Hwai-jeng Lin, Ming-yao Chen, Sheng-tsai Lin, Yu-xin Lai, Ming-zhe Tay, Chung-ying Lee**

*Taipei Medical University Shuang-Ho Hospital, Taiwan*

***Background/Aims:*** Hepatic abscess (HA) is the most common visceral abscess and is endemic in Taiwan. HA remains a serious health problem as invariably fatal if left untreated.

***Materials and Methods:*** A retrospective study of adult patients admitted with HA from 2013 to 2018 at Taipei Medical University Shuang-Ho hospital. One case of amoebic HA was excluded.

***Results:*** A total of 389 cases were enrolled with an average of 72.6 cases per year and 195.91 cases per 100000 admission. The annual incidence of HA was decreased steadily from 223.43 per 100 000 hospital admission (2013) to 174.96 per 100 000 (2017). Men dominated the study population (64.01%), median age was 63 years and 46.01% of cases had diabetes mellitus. The most common causes were idiopathic (69.15%) and biliary disease (20.30%). *Klebsiella pneumonia* was the most common pathogen (78.37% of culture-positive-cases). Single lesion was found in 316 cases (81.23%) and multiple lesions in 73 cases (18.76%). The proportions of patient who received percutaneous drainage and surgical drainage were 51.92% and 10.28% respectively. With antibiotic alone, 93.86% of HA less than 5 centimetres were successfully treated. Serious complications occurred in 13.62% of cases, including septic metastasis (7.20%), abscess rupture (1.28%), complications of percutaneous drainage (1.24%), endophthalmitis (1.02%) and septic complications. Average hospitalization period was 17.47 + 9.03 days and case fatality rate was 3.08%.

***Conclusion:*** Despite reducing incidence and case-fatality of HA, serious complications remained rellatively unchanged.

***Keywords:*** Hepatic abscess, idiopathic, Klebsiella pneumoniae

---

***PP-229***

## *Minimally-invasive methods of acute pancreatic postnecrotic pseudocysts treatment*

**Nazar Omelchuk**

*Ivano-frankivsk National Medical University, Ukraine*

***Background/Aims:*** Acute necrotic pancreatitis (ANP) remains complicated problem of urgent surgery because of high frequency of systemic, purulent and septic complications, mortality rate, which is in patients with infected pancreonecrosis

14,7–26,4%. The aim of this study is to evaluate efficiency and establish indications for minimally invasive methods of treatment of postnecrotic pseudocysts of pancreas.

***Materials and Methods:*** For diagnostics were used ultrasonography, diagnostic laparoscopy, helical CT with contrast strengthening. Endoscopic interventions were applied by duodenoscopes "Olympus" under control of X-ray machine "Siemens BV 300". Cystodigestive fistulas were created by prickly papilotoms.

***Results:*** In 82 (68,2%) patients were applied minimally invasive methods of treatment. Percutaneous external drainage in 38 (46,3%) patients, endoscopic transmural drainage of postnecrotic pseudocysts in 22 (26,85%) patients. Combined endoscopic interventions were applied in 22 (26,85%) patients. In particular, endoscopic transmural drainage with temporary stenting of pancreatic duct in 11 (50%) patients, endobiliary stenting with temporary stenting of pancreatic duct in 5 (22,7%) patients, temporary stenting of pancreatic duct in 4 (18,2%) patients, endoscopic transmural drainage with percutaneous external drainage in 2 (9,1%) patient.

***Conclusion:*** Usage of combined minimally invasive methods of treatment of acute necrotic pancreatitis complicated by postnecrotic pseudocysts help to improve results of treatment, reduction of complications amount, contraction of stationary treatment terms and improving of life quality.

***Keywords:*** Acute pancreatitis, acute pancreatic pseudocyst, acute fluid accumulation

---

***PP-230***

## *Causes of primary hepatic malignancy in Arab Americans*

**Nizar Talaat[1], Faris Elkhidir[2]**

*[1]Mayo Clinic, Rochester, Minnesota, USA*
*[2]Cleveland Clinic, Cleveland, Ohio, USA*

***Background/Aims:*** Arab Americans (ArAs) represent a unique population that might have primary liver cancer due to underlying chronic liver diseases not typically seen in non-Hispanic Whites Americans (NHWs). The aim of this study is to compare the characteristics of ArAs diagnosed with primary liver cancer compared to non-Hispanic Whites (NHWs).

***Materials and Methods:*** Retrospective chart review study of NHW and ArA patients diagnosed with primary liver cancer over a 10-year period in two hospitals located in high density ArAs community. A previously validated surname algorithm to identify ArAs patients was used. Cirrhosis was defined based on histology, imaging, or other invasive markers (AST-Platelet ratio index or FIB-4).

***Results:*** A total of 55 patients (22 ArAs and 33 NHWs) were included. Males were predominant in both groups and 59% of the ArAs were born outside the U.S. None of the patients had family history of liver cancer. A larger number of NHWs had biopsy proven malignancy (91% vs 64%, p=0.013). Majority of the patients in both cohorts had compensated cirrhosis (Table 1.). Viral etiology was identified in 46% of ArAs and 39% of NHWs (p=0.655). Among viral etiologies, hepatitis B was more prevalent in the ArAs group (23% vs 0%, p=0.004). Other etiologies of underlying liver disease were not significantly different between both groups (Table 1.). The disease burden did not differ significantly with less than half of the patients in both cohorts didn't meet the Milan criteria for liver. However, a small percent (<5%) of patients in both cohorts underwent liver transplantation. Only 41% of the ArAs had regular follow up after diagnosis compared to 94% of NHWs (p<0.001). Among patients with follow up, 89% of the ArAs and 94% of the NHWs were deceased at 1 year.

***Table 1.*** Summary of demographic and baseline characteristics

| Characteristic | ArAs (n=22) | NHW (n=33) | P-value |
|---|---|---|---|
| Demographics | | | |
| Men | 21 (96) | 27 (82) | 0.137 |
| ¥Age | 62±15 | 60±13 | 0.579 |
| Biopsy | 14 (64) | 30 (91) | 0.013 |
| Cirrhosis | 19 (86) | 28 (85) | 0.876 |
| Hepatic Decompensation | 8 (38) | 11 (36) | 0.848 |
| Underlying Liver disease | | | |
| Non-alcoholic steatohepatitis | 3 (14) | 3 (9) | 0.596 |
| Alcohol | 1 (5) | 6 (18) | 0.137 |
| Hepatitis C | 5 (23) | 13 (39) | 0.197 |
| Hepatitis B | 5 (23) | 0 (0) | 0.004 |
| Cholangiocarcinoma | 2 (9) | 5 (15) | 0.509 |
| Other | 6 (27) | 6 (18) | 0.424 |
| Beyond Milan Criteria | 10 (46) | 13 (39) | 0.437 |
| Malignancy Treated | 9 (41) | 22 (67) | 0.059 |
| Underwent Liver transplantation | 1 (4.5) | 1 (3) | 0.796 |
| Follow up after diagnosis | 9 (41) | 31 (94) | <0.001 |
| Deceased | 8 (36) | 29 (88) | <0.001 |

¥Mean±Standard deviation

***Conclusion:*** Arab Americans with primary hepatic cancer are more likely to be diagnosed by noninvasive methods and have a higher prevalence of hepatitis B compared to non-Hispanic whites. Additionally, they have poor follow up after diagnosis of cancer is given. This study highlights the importance of increasing awareness of diagnosing providers to ensure appropriate follow up of patients. We also encourage early hepatitis B screening and treatment in this population to decrease the incidence of hepatocellular carcinoma in this group

***Keywords:*** Arab Americans, liver cancer, Hepatitis B

***PP-231***

## *Prevalence of Helicobacter pylori infection in patients with dyspepsia*

**Seyed Mohammad Valizadeh Toosi, Mahdis Yaghobi, Reza Ali Mohammadpour**

*Mazandaran Medical Scienses University, Iran*

***Background/Aims:*** Dyspepsia is a common complaint among patients being referred to gastroenterologists. Studies show that there is a strong relationship between dyspepsia and *helicobacter pylori* (HP) infection and the prevalence of *HP* infection varies in different regions.

***Materials and Methods:*** In this cross-sectional study, patients with dyspepsia aged 15-80 years, who had an indication for upper gastrointestinal endoscopy, were included. A questionnaire for each patient including demographic information, socioeconomic status, endoscopic findings and pathology results, was completed and data were analyzed by

SPSS software version 22. Endoscopy was performed with the Pentax Endoscope (EG2985). Two biopsies were taken from antrum and body for *HP* infection evaluation using rapid urease test (RUT) – (Shim-enzyme Company). The test is a color-based test for rapid *HP* detection. In patients with abnormal endoscopic findings, pathological specimen was obtained from the pathologic lesion. Endoscopic gastric mapping (two biopsies from antrum and one from incisura angularis and two biopsies from body) was done in all patients with normal upper GI endoscopy. In adittion, *HP* infection in pathologic specimens was evaluated by the Giemsa staining method. *HP* was considered to be positive for the patient, if both rapid urease test (RUT) and pathology were positive, or the pathologic specimen was positive and RUT was negative.

***Results:*** A total of 751 patients with dyspepsia were enrolled in the study. One hundred and thirty seven patients were excluded from the study for different reasons, including: history of PPI and antibiotic use in a recent month, history of *helicobacter pylori* (*HP*) eradication and upper gastrointestinal malignancy. Finally, 614 patients were enrolled in the study. The mean age of patients was 45.8±5 years and 60.6% of patients were female. About 60% of enrolled patients were from urban areas. In terms of socioeconomic status, patients were mostly in the middle group. In our study, most patients (345/614) had normal endoscopy; duodenal ulcer (59/614) was the most common abnormal finding. Gastric malignancies had the lowest prevalence (3/614). The prevalence of *HP* infection was about 50% in the age group of under 30 year, and about 59.9% and in the age group over 30 year. These findings were consistent with the hypothesis of the cohort effect of increasing the prevalence of *HP* with increasing of age.

***Conclusion:*** The results of this study has shown that the prevalence of Helicobacter pylori infection in dyspepsia patients is about 60%. In comparison with similar studies in past decade in the same geographical area, *HP* prevalence is decline. In addition, *HP* is decline in people under the age of thirty years and patients with well socioeconomic status.

***Keywords:*** Dyspepsia, upper GI endoscopy, Helicobacter *pylori* infection

---

***PP-232***

## *A case of long-term survival after resection of pharyngeal metastasis after living-donor liver transplantation for hepatocellular carcinoma*

**Taiji Tohyama[1], Katsunori Sakamoto[2], Kei Tamura[2], Yasutsugu Takada[2], Tsuyoshi Terada[1], Koji Miura[1], Yasutaka Kudou[1], Yoshimi Fujimoto[1], Takayoshi Murakami[1], Takuya Nishina[1], Nobutaka Murashima[1], Takamasa Matsumoto[1]**

*[1] Kurasiki Medical Center, Japan*
*[2] Ehime University Graduate School of Medicine, Japan*

***Introduction***: The most common sites of recurrence after liver transplantation for hepatocellular carcinoma (HCC) have been reported to be in the liver, lung, bone, and adrenal glands, but there have been many reports of cases with multiple recurrence. The prognosis after recurrence is poor, with reported median survival after recurrence of HCC ranging from 12 to 19 months. Here, we report a case of long-term survival after recurrence of pharyngeal metastasis following living-donor liver transplantation (LDLT) for HCC within the Milan criteria by resection of the metastatic region and cervical lymph node dissection.

***Case***: A 47-year-old man with a MELD score of 11 underwent LDLT for HCC within the Milan criteria on liver cirrhosis associated with hepatitis B virus infection, with his 48-year-old elder brother as the living donor, in November 2004. Preoperative imaging revealed three HCC within the Milan criteria. Pathological examination of the liver revealed moderately differentiated HCC of 2.4 cm and a large number of well-differentiated HCC lesions measuring a few millimeters that appeared to represent multicentric occurrence. He received epirubicin at a dose of 10 mg/m2 during surgery, but did not receive postoperative chemotherapy. On September 2006, he visited a nearby hospital with a chief

complaint of discomfort on swallowing. A pedunculated polyp was found in the hypopharynx, and biopsy revealed HCC metastasis. Polypectomy was performed in October 2006. Two years after pharyngeal polypectomy, recurrence of neck lymph nodes was detected, and neck lymph node dissection was performed. Although recurrence subsequently occurred three times in the liver, and local treatment with TACE + RFA was performed, he is currently alive 12 years 9 months after recurrence with pharyngeal metastasis. Now he is a tumor-free outpatient taking a low dose of sorafenib.

***Conclusion***: Twelve cases of pharyngeal metastasis of HCC have been reported to date. The pharynx is a very rare site of HCC recurrence, and its prognosis is very poor. The mechanism of metastasis to the pharyngeal region is controversial. However, tumor cells are assumed to reach the head and neck through the vertebral vein plexus of Baston. Recurrence of HCC after liver transplantation has a poor prognosis because it represents systemic recurrence by circulating tumor cells. However, better prognosis can be expected if recurrence is local and radical resection is possible. Even with recurrence in the pharyngeal region, patients can show long-term survival, as in the present case. Multidisciplinary treatment by local excision and various subsequent treatments according to the condition of the patient are required.

***Keywords:*** Hepatocellular carcinoma, pharyngeal metastasis, living-donor liver transplantation

---

***PP-233***

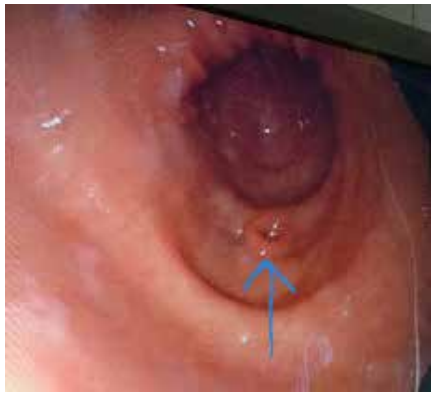
## *Gastric adenomyoma: An uncommon cause of dyspepsia*

**Opeyemi Folorunsho Bamidele[1], Matthew Olumuyiwa Bojuwoye[2], Mudashir Lawal[1]**

*[1]Dalhatu Araf Specialist Hospital, Lafia, Nigeria*
*[2]University of Ilorin Teaching Hospital, Ilorin, Nigeria*

Gastric adenomyoma (GA) is a rare benign lesion composed of ducts and glands embedded in smooth muscle stroma. Thirty-seven (37) cases were identified until 1993, and 15 cases reported from 1993 to 2016. Oesophagogastroduodenoscopy (OGD) has been widely used in evaluating GA; however, histology remains the gold standard for the diagnosis of GA. Our patient is a 26 year old Nigerian woman who presented with a six-month history of recurrent burning epigastric pain of insidious onset. The pain was associated with bloating and nausea, but no other gastrointestinal (GI) symptoms or weight loss. Past medical, drug and family history were unremarkable. Physical examination was unremarkable. Her OGD revealed a small,firm, circular, umbilicated subepithelial antral nodule. The oesophagus, fundus, corpus and duodenum were normal. The histology of the biopsied nodule showed columnar epithelium overlying a lamina propria within which were nests of Brunner glands that are separated by smooth muscle bundles and mucous glands. No cytologic atypia was seen. The histologic findings were diagnostic of a GA. No Helicobacter *pylori* (H. *pylori*) was seen. The patient was placed on proton pump inhibitors (PPI) with the resolution of her symptoms after two weeks of medical therapy. The patient was followed up and monitored due to the absence of dysplasia or malignant cells on histology, the small size of the antral nodule and resolution of symptoms with medical therapy. A repeat OGD and biopsy of antral lesion done six months later appeared the same. GA is a rare benign tumour first described by Magnus-Alsleben in 1903. To the best of our knowledge, our case will be the first to be reported in Nigeria. We believe the dyspeptic symptoms our patient had is most likely due to the presence of GA in the antrum, as the other possible causes of dyspepsia such as NSAID use, H. *pylori*, were absent in this case. In summary, we report a case of a young woman with GA who presented with dyspepsia. We believe that our report of this uncommon condition will further raise awareness and also remind physicians in considering GA as a possible differential of dyspepsia. Nest of brunner glands (Blue arrow) seperated by smooth muscle bundles (Yellow arrow).

***Keywords:*** Gastric, adenomyoma, dyspepsia



***PP-234***

## *A curious case of hematochezia in a young adult*

**Chong Teik Lim, Ngai Moh Law**

*Changi General Hospital, Singapore*

***Introduction***: Meckel's diverticulum is a common congenital abnormality of the small intestine secondary to the vitello-intestinal duct. It commonly presents as hematochezia and abdominal pain in young children particularly those less than 2 years old.

***Case***: A 26 years old lady presented to Emergency Department with history of hematochezia and abdominal pain for 2 days. The abdominal pain was mainly paraumbilical and colicky in nature and it was present intermittently for the past 6 months. One day prior to this visit, she was treated for acute gastroenteritis by a General Practitioner in view of presence of vomiting and diarrhea. However, symptoms were not improving and she subsequently developed hematochezia. She denies any fever and family history of gastrointestinal disease such as inflammatory bowel disease or malignancy. She denies any recent travelling and there is no sick contact recently. Physical examination were unremarkable and per rectal examination reveals blood mixed with stool with no mass or hemorrhoids seen. She has leukocytosis on blood investigation and abdominal radiograph performed in emergency department was unremarkable. She was subsequently admitted for treatment of dysentery and was started on intravenous ceftriaxone and metronidazole. However, patient's abdominal pain became severe requiring opioid for analgesia and an inpatient Computer Topography scan of her abdomen was obtained. Figure 1 shows the appearance of bowel within bowel appearance in the right lower quadrant in keeping with ileocolic intussusception. An urgent surgical consult was done and patient was agreeable for operation for bowel resection. Intra-operatively, a Meckel's diverticulum was noted to be the cause of the intussusception. The segment of ileum in the intussusception was noted to be ischemia with gangrene but no perforation noted. The intussuscepted bowel was resected and an end to end ileocolic anastomosis was performed. Post operatively patient recovered well and tolerated orally without any complications. She was discharged subsequently.

***Conclusion***: This case illustrated that Meckel's diverticulum could be a differential diagnosis for young adults presenting with hematochezia. It is commonly misdiagnosed preoperatively in view of the rarity of these cases in the adult population.

***Keywords:*** Hematochezia, meckels diverticulum

***Reference***

*1. Sagar J, Kumar V, Shah DK. Meckel's diverticulum: A systemic review. Journal of the Roayal Society of Medicine 2006;99:501-505.*
*2. Lequet J, Menahem B, Alves A, et al. Meckel's diverticulum in the adult. Journal of Visceral Surgery 2017;154:253-259.*

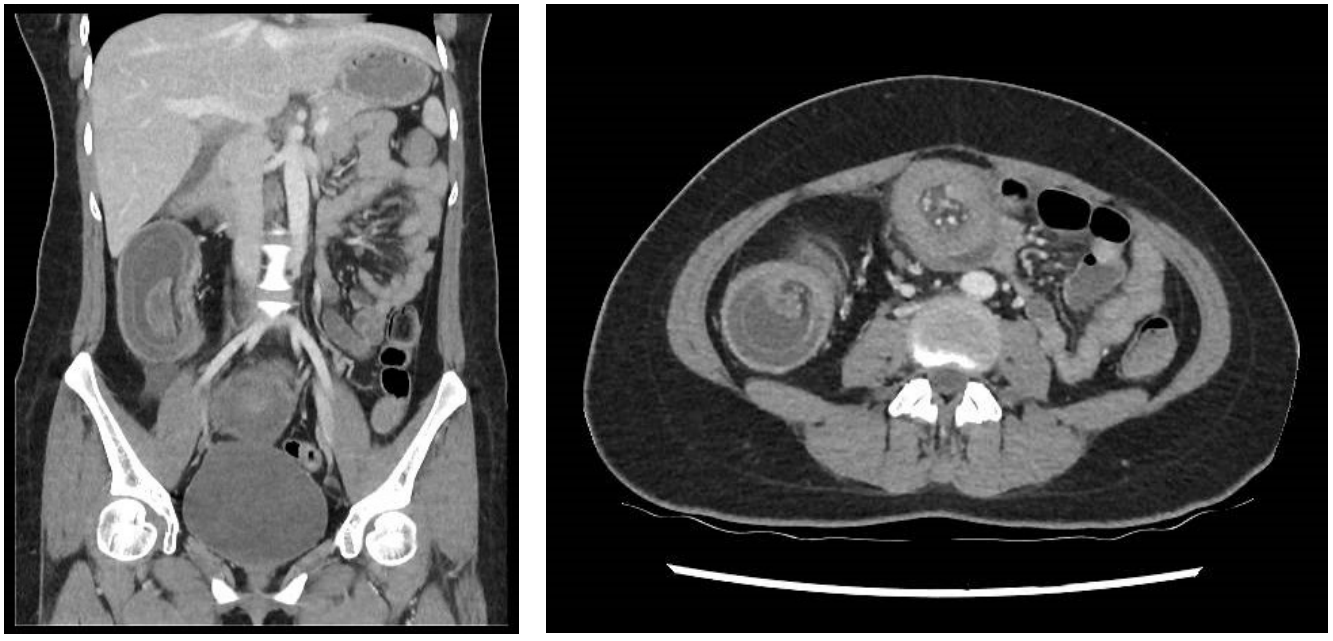


**Figure 1.** Presence of bowel within bowel appearance in the right lower quadrant on coronal and transverse view.

***PP-235***

## *Detection of minimal hepatic encephalopathy in patients with liver cirrhosis in Jos University TeachingHospital (JUTH), Jos, Nigeria*

**Nyam David[1], Pantong Davwar[1], Mike Okorie[2], Edith Okeke[1], Mary Duguru[1], Patience Omaiye[1]**

*[1]Jos University Teaching Hospital, Jos, Nigeria*
*[2]Federal Medical Centre, Jabi, Fct, Nigeria*

***Background/Aims:*** Minimal hepatic encephalopathy (MHE) is a condition in which patients with liver cirrhosis and normal mental and neurological status on clinical examination exhibit cognitive dysfunction detectable on psychometric or neurophysiologic tests. Detection of this condition is difficult in clinical setting and is not routinely done despite its high prevalence (20%-84%) among patients with liver cirrhosis and a high risk of progression to overt hepatic encephalopathy. Treatment of MHE improves cognitive function in patients. Therefore, there is a need for regular testing of patients with liver cirrhosis in order to detect MHE early and initiate treatment.To assess the prevalence of minimal hepatic encephalopathy in patients with liver cirrhosis using the psychometric hepatic encephalopathy score (PHES).

***Materials and Methods:*** Fifty (50) patients diagnosed with liver cirrhosis based on fibroscan score above 12.5kpa and without overt hepatic encephalopathy, were recruited in this cross-sectional study. Patients were screened for MHE using the paper-pencil psychometric hepatic encephalopathy score (PHES) test, based on the original values. Data analysis was done using the epi-info version 7.

***Results:*** There were 50 patients in the study, males were 39(78%) while females were 11 (22%). The main etiology of liver cirrhosis was HBV infection, seen in 70.1% of study subjects. The mean fibroscan score was 28.9±11.8kpa among study participants. The prevalence of MHE was 70.6% (70.1% for males and 83.7% for females, p=0.065). MHE was significantly higher among patients in Child-Pugh class C (89.9%) and B(80.1%) as compared to Child-Pugh class A(51.3%) p=0.001.

***Conclusion:*** There is a high prevalence of MHE among patients with liver cirrhosis in JUTH.

***Keywords:*** Jos university teaching hospital, minimal hepatic encephalopathy, psychometric hepatic encephalopathy score

---

***PP-236***

## *Assessment of serum ischemia modified albumin in cases with liver fibrosis*

**Mustafa Tahtacı[1], Murat Başaran[3], Hüseyin Köseoğlu[4], Fatma Yıldırım[2], Pervane Ahmedova[1], Fatma Ebru Akın[1], Murat Alışık[1], Aylin Demirezer Bolat[2], Özcan Erel[1], Osman Ersoy[1]**

*[1]Ankara Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*
*[2]Ankara Atatürk Training and Research Hospital, Ankara, Turkey*
*[3]Siirt University School of Medicine, Siirt, Turkey*
*[4]Hitit University School of Medicine, Çorum, Turkey*

***Background/Aims:*** Serum ischemia modified albumin (IMA) is a useful marker for ischemia and oxidative stress. In this study, it was aimed to evaluate the role of serum IMA and IMA based models in predicting liver fibrosis.

***Materials and Methods:*** Patients who underwent liver biopsy for the diagnosis of chronic liver disease between 2013 and 2016 were included in the study. Patients biopsies were evaluated by a single pathologist. Patients were classified according to their fibrosis grades. The hemogram parameters, creatinine, AST, ALT, total bilirubin, direct bilirubin, albumin, IMA and IMA albumin ratio (IMAR) levels were evaluated in all cases.

***Results:*** A total of 34 cases who underwent liver biopsy were included in the study. According to the degree of fibrosis, 15 cases were mild, 15 cases were in the moderate and 4 cases were in the advanced fibrosis group. Mean IMA and IMAR levels were significantly different between the groups (p=0.031, p=0.044, respectively). Mean IMA and IMAR were significantly different in the advanced fibrosis group compared to the moderate and mild fibrosis groups (p=0.009 and p=0.026, p=0.014 and p=0.029, respectively). There was no significant difference between the mild and moderate fibrosis groups in terms of mean IMA and IMAR (p=0.545 and 0.673).

***Conclusion:*** Ischemia modified albumin and IMAR can be used as an effective serum marker in advanced liver fibrosis in liver diseases.

***Keywords:*** Liver, fibrosis, ischemia modified albumin

---

***PP-237***

## *Unusual case of trichobezoar*

**Faezeh Razjouyan**

*Childrens National Hospital, Washington, USA*

Bezoars are classified based on the predominant material constituting them. Trichobezoars, predominantly composed of hair, are most reported in adolescents and females. This is thought to be attributed to females having traditionally long hair. Most patients with trichobezoars suffer from psychiatric disorders such as trichotillomania and trichophagia. We present a case of giant gastric trichobezoar in the youngest documented female in the U.S. with trichophagia and pica in the setting of profound iron deficiency anemia rather than psychiatric disorder. A 2 year old female, born full term without any complications, presented to her pediatrician with 6 months history of fatigue and poor eating habits. Blood work revealed severe iron deficiency anemia. The mother commented on chronically decreased appetite, being a "picky eater" with resultant weight loss. Patient was started on oral iron and recommended to follow up. During the follow-up visit, the mother expressed concern about abdominal distention and a "ball" in the child's abdomen. Abdominal

examination revealed a hard, non-tender ball like mass in the left upper quadrant and epigastric region. Additionally, there were areas of asymmetrical patches of alopecia, particularly in the frontal and vertex regions. The mother added that patient has been pulling her hair and eating it. Initial plain radiograph of the abdomen was unremarkable. An abdominal US ruled out splenomegaly and splenic vein thrombosis. However, on upper GI study a massive gastric trichobezoar was noted. Exploratory laparotomy and gastrectomy were performed, and the mass was removed in segments. In majority of cases, trichobezoar is secondary to trichotillomania. However, in children, especially too young to be diagnosed with psychiatric disorder, they may be associated with pica due to iron deficiency anemia rather than underlying psychiatric illness. A history of pica and eating habits especially in children should always be obtained.

***Keywords:*** Trichobezoar, bezoar, PICA, anemia, abdominal mass, trichotillomania, trichophagia

---

***PP-238***

## *Study on nebulized or sprayed lidocaine as anesthesia for esophago-gastro-duodenoscopy (EGD)*

**Jimmy Narayan, Ayaskanta Singh, Diptimayee Mallik**

*Ims & Sum Hospital, Soa University, India*

***Background/Aims:*** Endoscopy of the gastro intestinal tract is an invasive technique resulting in gag reflex, bradyarrhymias and unpleasant symptoms. This study aimed to comparison of the effectiveness; successful completion of the endoscopic procedure of spraying and nebulized lidocaine for patients undergoing endoscopy and patient respone to topical pharyngeal anesthesia (TPA).

***Materials and Methods:*** A total of 220 patients undergoing elective EGD, with a history of neither lidocaine intolerance nor irritable airways due to smoking, chronic obstructive pulmonary disease (COPD), upper respiratory infection, asthma, cardiac and pulmonary diseases and allergy to lidocaine were included. All patients were randomized into two groups: A where 5 puffs (10 mg/puff) of spraying lidocaine were administered four times at 5-minute intervals, up to a total dose of 200 mg, and B-where 250 mg of nebulized lidocaine was administered via a nebulization. The co-researcher assessed the ease of esophageal instrumentation as either difficult, poor, fair or excellent. Both the endoscopist and the patients expressed their satisfaction by using the numerical rating scale.

***Results:*** The endoscopist expressed her satisfaction with instrumentation, which showed no significant difference between group A and group B as 83.6+8.3 and 81.5+10.6, respectively. Sensation during drug administration remain same however, for other categories, namely sensation during instrumentation, taste of medication, sensation after drug administration, willingness for drug administration, incidence of sore throat and dysphagia, they performed better than group B. However, nebulized lidocaine had significant advantages over spraying lidocaine, with better acceptance in patients undergoing EGD.

***Conclusion:*** Nebulized Lidocaine is equally effective to spraying lidocaine in terms of endoscopist response to EGD but is more tolerable to patient.

***Keywords:*** Esophago-gastro-duodenoscopy, topical pharyngeal anesthesia, dysphagia

---

***PP-239***

## *A comparative study between male and female non-alcoholic fatty liver disease (NAFLD) patients with special reference to histology*

**Jimmy Narayan[1], Ayaskanta Singh[1], Shivaram Prasad Singh[2]**

*[1]Ims & Sum Hospital, Soa University, Bhubaneswar, India*
*[2]Scb Medical College & Hospital Cuttack, India*

***Background/Aims:*** The aim of the present study was to determine the difference in anthropometric, biochemical and metabolic profile differences between male and female NAFLD patients. The study also attempted to determine whether a group has more severe disease on liver histology compared to the other.

***Materials and Methods:*** This was a single center observational analytical study of subjects attending gastroenterology OPD at SCB medical college and hospital Cuttack, Orissa in coastal Eastern India over a period of one year**.** 1000 consecutive NAFLD patients were analysed in this study.

***Results:*** Male to female ratio was 3:1. Fasting blood sugar (102.63±30.2 vs 109.5±31.5 p=0.03) and post prandial (146.8±63.9 vs 157.3±71.1p=0.13) was greater in female patients. Dyslipidemia, high TG (198.8±79 vs 180.8+85.5 p=0.03), low HDL levels (43.0±13.5vs 45.9±8.3 p=0.02) and high VLDL levels(39.1±21.2vs 35.0±13.6 p=0.05)] was significantly higher in the male NAFLD group. Serum insulin (9.76±5.3vs 10.9±5.1p=0.04) and HOMA-IR (2.54±2.2 vs 3.02±2.08 p=0.04) were significantly higher in female NAFLD patients. On multivariate logistic regression analysis, waist height and waist hip ratio, and serum albumin was significantly different in the two groups. Liver biopsy was performed in 240 NAFLD patients, out of which 191 were males and 48 were females. The necroinflammatory activity as measured by lobular inflammation was greater in male NAFLD patients as compared to the female patients. However severe hepatic steatosis, ballooning degeneration and the overall NAS scores were comparable in both the gender groups.

***Conclusion:*** Better understanding of the gender difference will take us to a step closer for a novel and effective therapy for NASH.

***Keywords:*** NASH, MS, HOMA IR

---

***PP-240***

## *Correlation of biological and virological parameters with liver histology in chronic Hepatitis B (CHB) in Asian Indians*

**Jimmy Narayan, Ayaskanta Singh, Debasis Misra**

*Ims & Sum Hospital, Soa University, Bhubaneswar, India*

***Background/Aims:*** Chronic HBV infection is a serious clinical problem because of its worldwide distribution and the average estimated carrier rate of hepatitis B virus (HBV) in India is 4%. To study the profile of chronic hepatitis B in a tertiary care hospital in Odisha with reference to HBe antigen, anti Hbe antibody, liver function tests and viral load and to study the correlation of liver histopathology with LFT and viral load in patients of chronic hepatitis B.

***Materials and Methods:*** Patients of chronic hepatitis B attending the outpatient department and indoor patients of the Department of Gastroenterology over a two year period were included in the study. Detailed history and routine investigations including complete blood count, liver function test, viral load, HBe antigen, anti HBe and HBV DNA using real time PCR using Cobas Ampliprep and Taqman was done. USG, UGIE was done in all cases and liver biopsy was done in 92 patients whose coagulation profile allowed.

***Results:*** Out of 308 CHB patients in Coastal eastern majority of patients are HBeAg negative (80.5%). The male female ratio was 4.8. 20 patients (6.49%) were immunotolerant. Males had higher viral load and more necroinflammation ( mean 3.99 vs 2.87) as evident on liver biopsy but similar fibrosis as their female counter part. HBeAg positive cases in our study had higher viral load, higher level of liver enzymes and also were histologically more severe compared to HBeAg negative cases. Biochemical parameters such as liver enzymes showed no correlation with either viral load or with liver histology. Although HBV DNA level/viral load had a positive correlation with liver histology ( p=0.27) when all cases were considered but this correlation was not evident when HBeAg positive and negative patients were analyzed separately. Immune tolerant may have more severe disease histologically mean HAI grading ( 4 vs 3) and staging ( 1 vs 0) as compared to others ( p< 0.05).

***Conclusion:*** Biochemical parameters could not be used to predict severity of disease on liver histology. Though viral load had a positive correlation with liver histology overall, this correlation was not evident when HBeAg positive and negative patients were analyzed separately. Liver histology is an important guide for treatment decision even in immune tolerant group as they may have more severe disease histologically.

***Keywords:*** CHB, transaminases, histology

***PP-241***

## *Frequency of response loss when transferring patients with inflammatory bowel disease from the original drug infliximab to its biosimilar*

**Oleg Knyazev[1], Anna Kagramanova[1], Tatyana Shkurko[2]**

*[1]Moscow Scientific Center Named After A. S. Loginov, Moscow, Russia*
*[2]Institute For Health Organization and Medical Management*

***Background/Aims:*** Biosimilars are analogues of biopharmaceutical drugs, with a close but not identical original molecule. Objective: to identify the frequency of response loss in patients with inflammatory bowel disease (IBD) receiving biosimilar infliximab during the year of observation.

***Materials and Methods:*** In the Department of inflammatory bowel diseases of the Moscow scientific center named after A. S. Loginov of the Department of health of Moscow, 60 patients with IBD were observed, who were transferred from the original drug infliximab (IFX) to the introduction of biosimilar infliximab, were divided into two groups. Group 1 (n=30) patients were did not receive the anti-TNF-α drug and received the original IFX drug, and was then transferred to biosimilar's IFX. The 2-nd group of patients (n=30) had previous experience of receiving anti-TNF-α before the introduction of IFX and then it's biosimilar. The loss of response in the transfer of patients with IBD from the original drug infliximab to its biosimilar was assessed according to clinical, laboratory and instrumental data. The comparative analysis was carried out by the method of four-field tables using nonparametric statistical criteria.

***Results:*** During the year of observation among patients were did not receive the anti-TNF-α drug IBD patients receiving the original when translating IFX on the IFX biosimilar the loss of response occurred in 5 cases (16.7%) patients. In most cases, the loss of response to biosimilar (13 (43,%)) developed if IFX and its biosimilar were not the first anti-TNF-α drugs (OR-0.385; 95% CI 0.157-0.945; $x^2$-5.079; p=0.02857).

***Conclusion:*** The rate of response loss when transferring patients with inflammatory bowel disease from the original drug infliximab to its biosimilar is significantly higher in patients with IBD, if IFX and its biosimilar were not the first anti-TNF-α drugs.

***Keywords:*** Biosimilar, frequency of response, inflammatory bowel disease

***PP-242***

## *Recurrence of primary biliary cholangitis after liver transplantation: A single center experience*

**Lukas Bajer, Klara Chmelova, Jan Brezina, Peter Macinga, Pavel Trunecka, Pavel Taimr, Julius Spicak, Pavel Drastich**

*Ikem Prague, Hepatogastroenterology, Prague, Czech Republic*

***Background/Aims:*** Primary biliary cholangitis (PBC) may progress to end-stage disease requiring orthotopic liver transplantation (OLT). Recurrent form of PBC (rPBC) appears in significant proportion of patients after OLT and is usually charac-

terized by mild clinical course. The aim of this study was to evaluate outcome of OLT for PBC in our center and to identify recipient risk factors for rPBC.

***Materials and Methods:*** A total number of 82 OLTs for PBC were performed in our center between 1995-2017. We retrospectively analyzed all relevant medical records from our computed database. Input statistical data were analyzed using JMP software. Survival ratio was determined from Kaplan-Meier curves. Pearsons chi-squared test and Fisher's exact test were used to assess the potential risk factors for rPBC.

***Results:*** Out of 82 patients with median 158 (23-261) months of follow-up, 73 (89%) were female and 9 (11%) were male with median age of 56.9 (36-71) at the time of OLT. 3/82 (3.7%) had hepatocellular carcinoma (HCC) in the liver explant. 1-, 3-, 5-years patient survival was 92.7%, while 10-years survival was 84.6%. Graft survival was 91.7% at 1, 3 and 5 years and 83.7% at 10 years. 3 (3.7%) patients received re-transplant: 1 (1.2%) for primary graft dysfunction and 2 (2.4%) for rPBC. Out of 74 analyzed patients (after applying exlusion criteria), 45 (54.9%) developed rPBC after median time of 46 (11-239) months. None of the potential risk factors (age, sex, type of immunosuppression, features of AIH prior OLT, AMA and ANA positivity prior OLT) were significantly associated with rPBC (p>0.1). However, the rate of rPBC had statistical tendency to be higher in patients who had HCC in their explants (p=0.056).

***Conclusion:*** Recurrent PBC is frequent but usually not serious clinical condition. In our cohort, rPBC rate was relatively high, presumably due to long median follow-up after OLT.

***Keywords:*** Primary biliary cholangitis, recurrence, liver transplantation

---

***PP-243***

## *Protective effect of mesalazine on thromboembolic event risk in crohn's disease*

**Ekin Yiğit Köroğlu[1], Kerem Kenarlı[1], Zeynep Melekoğlu Ellik[2], Serkan Duman[2], Aysun Çalışkan Kartal[2], Murat Törüner[2], Arif İrfan Soykan[2], Hülya Çetinkaya[2]**

*[1]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[2]Division of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** In patients with Crohn's Disease (CD), thromboembolic events(TE) are one of the major causes of morbidity and mortality. In this study, we aimed to show the effect of mesalazine treatment on thromboembolic events and coagulation parameters in patients with CD in comparison to healthy volunteers (HV).

***Materials and Methods:*** A retrospective,analytic study including all patients with CD who under mesalazine treatment in our department between January,2010-December,2018. Patients who have any rheumatologic or hematologic disease were excluded. Patients treated with mesalazine and HV were compared on TE, coagulation parameters, thrombocyte counts and MPVs. We also compared the patients with endoscopically active and inactive disease; and the patients who only use mesalazine and who use additional treatment options.

***Results:*** A total of 100 CD patients with a mean age of 42,6(18-76) and 60 HV with a mean age of 49,9(19-78) were enrolled. All patients use mesalazine. TE were seen in%4 of CD and%3.3 in HV(p>0,05). Median value of INR was founded 1,0(0,9-1,6) in CD and 1,0(0,9-1,2) in HV(p=0,031). Median thrombocyte counts were 299,5(108-647) in CD and 280,5(180-561) in HV(p=0,431). Mean MPV was 9,069 on CD and 10,273 on HV(p=0.05). We compared the endoscopically inactive 38 patients(SES-CD-score:0-1) and endoscopically active 62 patients(SES-CD-score:2-3);it's seen that, under mesalazine treatment, TE ratio was%2,6 vs%4.8(p=0,509),respectively. Patients who gets additional treatment options like azathiopurine or anti-TNF drugs, TE ratio was%4,8(n=41) and%3,4(n=59) on the patients who only gets mesalazine(p=0,561). There is also no significant difference on coagulation parameters and MPV but thrombocyte count is higher in the patients who gets additional treatment(334,38 vs 290,67,p=0,038).

***Conclusion:*** Our results suggest that;using mesalazine in CD is protective from TE independently from additional treatments and endoscopically severity. Despite there is higher INR values and higher thrombocyte count in some subgroups,that doesn't result into a coagulation dysfunction or TE.

***Keywords:*** Mesalazine, crohns, thromboembolic event

---

***PP-244***

## *The efficacy of 5-ASA and infliximab therapy in patients with Crohn's disease*

**Safa Şenel, Leyla Tatar, Ece Bilgiç, Zeynep Melekoğlu Ellik, Serkan Duman, Hülya Çetinkaya, Murat Törüner**

*Ankara University, Ankara, Turkey*

***Background/Aims:*** We have evaluated the treatment options for Crohn's disease(CD) retrospectively in a single center in Turkey.

***Materials and Methods:*** A total of 180 patients with CD who presented at the Ankara University Internal Medicine Departments of Gastroenterology outpatient clinics between 2009 and 2015 were recruited in this study. Crohns Disease Activity Index(CDAI) is used to describe disease severity.

***Results:*** In this population,%84 of patients have small bowel involvement while%56 have ileocolitis,%24 have diseases limited to colon and%7 have predominant involvement of gastroduodenal area.%10 of them were already in remission at the admission.%69 of patients determined as mild to moderate CD at the admission and%63 of them entered remission only by 5-ASA treatment.%44 of patients diagnosed as moderate to severe CD which includes%21 at the time of diagnosis and%23 during the follow-up. These patients used 5-ASA, azathioprine, methylprednisolone and budesonide combinations and%78 of these patients have seen in remission during the follow-up. The patients who are refractory for these agents(%10 of total population) admitted to infliximab therapy and%89 of them have seen in remission with infliximab at the end of the follow-up.

***Conclusion:*** 5-ASA is a common drug for mild to moderate CD treatment and we have seen nearly 2/3 of these patients were in remission by 5-ASA drug monotherapy. Infliximab is a very effective agent against CD patients who show resistance to 5-ASA, steroid and/or azathioprine combinations and at the end of follow-up nearly%90 of these patients entered remission by infliximab therapy.

***Keywords:*** Crohns disease, 5-ASA, infliximab

---

***PP-245***

## *Anti-TNF treatment and malignant syphilis in Crohn's disease*

**Zeynep Melekoğlu Ellik[1], Serkan Duman[1], İncilay Kalay Yıldızhan[2], Hülya Çetinkaya[1]**

*[1]Division of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Dermatology, Ankara University School of Medicine, Ankara, Turkey*

***Introduction:*** Tumor necrosis factor (TNF) alfa is a cytokine that has main role in inflammatory diseases and initiates other proinflammatory cytokines cascades in humans. Adalimumab is a human immunoglobulin G1 monoclonal antibody targeting TNF and it is widely used for the treatment of moderate to severe Crohn's disease. Clinical trials have noticed that anti-TNFα therapy is related with some risks containing a high rate of serious infectious complications such as bacterial infections, fungal infections and tuberculosis. We present a case of a CD with malignant syphilis following adalimumab treatment.

***Case:*** A 29-year-old female, three years before admission, she had sleeve gastrectomy and after 1 year she was diagnosed with CD with inflammation limited to the terminal ileum and sigmoid colon and has been taking mesalazine 3 gr/day and azathioprine 100 mg/day for the last 1 year. Five months before admission to the hospital she had diarrhae and weight loss, her stool frequency had increased from 4 to 20. Adalimumab therapy was started in addition to azathioprine therapy. A week following the nineth injection fever, artralgia and rash occurred.Her rashes started as papular and nodular and progressed to painful nodular ulsers on her face, extremites and body. Multiple biopsy specimens were taken from the skin lesions and antibacterial, antiviral and antifungal treatments started. Bacterial cultures of the blood were negative for acid-fast bacilli, bacteria, and fungi. Histopathological assessment revealed pitriasis lichenoides et varioliformis acuta (PLEVA) but the appearance of the shell of ulcer laminated rupoid that was spesific for malignant syphilis. Serological tests for syphilis were positive (venereal disease research laboratory [VDRL] test 1:16 dilutions and treponemal hemagglutination [TPHA] 1:160 dilutions). Malignant syphilis was diagnosed and intramusculer benzathine penicillin treatment was started weekly for three weeks by dermatology department. A dramatic response occurred with treatment and rashes regressed during follow-up.

***Conclusion:*** Anti TNF-alpha drugs are widely used and there are growing number of cutaneous side effects during anti-TNF treatment in inflammatuar bowel disease patients. Malignant syphilis has not been reported before in Crohns disease under anti-TNF treatment. Physicians should be aware of the increased dermatological side effects.

***Keywords:*** Adalimumab, Crohn's disease, malignant syphilis

---

***PP-246***

## *Mesenchymal stromal cells of bone marrow reduce the risk of postoperative recurrence of Crohns disease*

**Oleg Knyazev, Anna Kagramanova, Albina Lishchinskaya**

*Moscow Scientific Center Named After A. S. Loginov, Moscow, Russia*

***Background/Aims:*** Depending on the combination of risk factors, as well as on the effectiveness of previous anti-relapse therapy, patients with Crohns disease (CD) after surgery should be stratified into groups with different risks of postoperative recurrence. Objective to evaluate the effectiveness of mesenchymal stem/stromal cells (MS/SC) as anti-relapse therapy in patients with low-risk CD after ileocecal resection.

***Materials and Methods:*** 36 patients with CD in the form of terminal ileitis with a stricture of the terminal ileum with signs of intestinal obstruction after the ineffectiveness of the course of conservative therapy (application of GCS) underwent resection of the ileocecal Department with the formation of ileo-ascendoanastomosis. All patients had a low risk of postoperative recurrence of Crohns disease. However, the first group of patients aged 19 to 58 years (Me-29) (n=18) received MS/SC. The second group of patients aged 20 to 68 years (Me-36) (n=18) received mesalazines 4 gr/day. The follow-up period was 60 months. The monitoring was carried out by endoscopic picture and/or CT-enterography, C-RP level, fecal calprotectin (FCP). Average baseline CRP in the 1st group was 29.5±3.2 mg/l, in the 2-nd – to 27.75±3,0 (p=0,73), the level of the FCP in the 1-st group 1019,4±97,2 mkg/g, in the 2nd – 998,8±127,3 mkg/g (p=0,9).

***Results:*** After 24 months in the 1-st group of patients the average level of C-RP was 9.5±1.9 mg/l, in the 2-nd group-17.8±3.3 mg/l (p=0.027). The level of the FCP in the 1st group-98,0±12,1 mkg/g, in the 2-nd – 121,7±14,2 mkg/g (p=0,27). After 24 months of follow-up, 1 (5.5%) patient from the first group (n=18) had a relapse that required the appointment of GCS. In the second group, relapse occurred in 4 (22.2%) patients out of 18 (RR 0.25; 95%CI 0.031-2.025; p=0.15). After 60 months in the 1-st group of patients the average level of C-RP was 10.76±2.1 mg/l, in the 2nd group-19.2±3.5 mg/l (p=0.039). The level of the FCP in the 1-st group of 100.4±13.7 per mkg/g, in the 2-nd – 191,7±24,9 mkg/g (p=0.002). After 60 months of follow-up, 1 (5.5%) patients from the first group had a relapse. In the second group, relapse occurred in 8 (22.2%) patients out of 18 (RR 0.125; 95%CI 0.017-0.9; p=0.008).

***Conclusion:*** The use of mesenchymal stem/stromal cells (MS/SC) as anti-relapse therapy in patients with low-risk CD after ileocecal resection significantly reduces the risk of postoperative recurrence of CD.

***Keywords:*** Crohns disease, Mesenchymal stromal cells, risk of postoperative recurrence

---

***PP-247***

## *Ultra slow waves in anorectal manometry-sign of puborectal muscle contractions?*

**Özdal Ersoy[1], Yasemin Ecem Temel[2], Fatih Oğuz Önder[1], Simay Kara[1]**

*[1]Acıbadem University Medical Faculty, İstanbul, Turkey*
*[2]Acıbadem Fulya Hospital, Pelvic Physiotherapy, İstanbul, Turkey*

***Background/Aims:*** Paradoxical puborectalis contraction is an important dilemma in patients with functional constipation presenting as a challenging diagnostic problem for the clinician. Physical examination including digital rectal examination and supplemented diagnotic modalities such as defecography and anal electromyography and anorectal manometry are diagnostic modalities for detecting puborectalis contractions.Involuntary ultraslow waves seen during the resting period of anorectal manometric studies are new complex entitties in patients with chronic constipation and/or chronic pelvic pain. Here we aimed to investigate the probable relationship between ultraslow waves in anorectal manometry and puborectalis contraction findings in defecography.

***Materials and Methods:*** Ultraslow waves are retrospectively searched in 500 anorectal manometry records in Acibadem Hospitals anorectal physiology units. 128 patients recordings showed ultraslow waves. If present, defecographic findings of these patients are also evaluated for puborectalis contraction (puborectalis indentation, anismus or poor anal canal openning, anorectal angulation during defecation, obstructive defecatory findings).

***Results:*** Ultraslow waves in anorectal manometric measures are well correlated with defecographic findings suggesting puborectalis contraction.

***Conclusion:*** This is the first study evaluating ultraslow waves in anorectal manometry with defecography findings indicating puborectalis contraction which might be a new anorectal and clinical entity in chronic pelvic floor disorders.

***Keywords:*** Puborectalis, ultrslow waves, constipation

---

***PP-248***

## *Efficacy of simethicone oral disintegrating strip given just before doing upper gastrointestinal endoscopy*

**Ayaskanta Singh, Jimmy Narayan**

*Ims and Sum Hospital, Soa University, India*

***Background/Aims:*** The presence of bubbles and foam in stomach and duodenum during endoscopic examination can prolong the procedure duration and hinder proper mucosal examination. Simethicone has shown good results in reducing the air bubbles from stomach, duodenum and colon. The objective of the study was to see whether simethicone disintegrating strip given just prior to gastroscopy, helps in decreasing the gastric and duodenal foam formation, reduce procedure time and improve patient satisfaction.

***Materials and Methods:*** Around 500 consecutive patients who underwent gastroscopy were included in the study. Those patients who had malignancy, chronic liver disease or those who required endotherapy were excluded from the study. After exclusion, 455 patients were randomized in 1:1 ratio into two groups; the first group received the simethicone strip just prior to the procedure (within 5-10 minutes), while the second group didn't receive any premedications. The two experienced endoscopists, who did the procedures, were blinded to the group allocation. Visibility scores(0=best, 3=worst) of gastric and duodenal mucosa, duration of endoscopy procedure and patient satisfaction levels were noted.

***Results:*** 212 patients received the premedication while 243 patients served as controls. The simethicone group had significantly better mean mucosal visibility score as compared to control group in gastric lumen (1.15±0.3 vs 2.10±0.9, p< 0.001). Mucosal visibility was also significantly better in the duodenal lumen in the simethicone group as compared to the control group (1.09 + 0.3 vs 1.86 + 0.8, p<0.001). The simethicone group also had a significantly shorter procedure time (1.55 min±0.3 vs 1.66min±0.5, p=0.007) and better patient satisfaction score.

***Conclusion:*** Premedication with simethicone disintegrating strips immediately before gastroscopy not only improves mucosal visibility, but also shortens procedure duration and improves patient satisfaction.

***Keywords:*** Simethicone, gastric bubbles, premedication, endoscopy

---

***PP-249***

## *Refractory gerd: Ambulatory 24 hours PH metry study is an important diagnostic tool*

**Ayaskanta Singh, Jimmy Narayan**

*Ims and Sum Hospital, Soa University, India*

***Background/Aims:*** Proton pump inhibitors (PPIs) are the preferred medications in the management of gastro esophageal reflux disease(GERD). Ambulatory 24 hours pH monitoring is often recommended in patients experiencing symptoms of GERD despite on PPI therapy. Recent studies show that pH studies are predictably normal in this setting. The aim of our study was to describe what percentage of patients with persistent heart burn despite on PPI therapy have evidence of reflux disease on 24 hours Ph study.

***Materials and Methods:*** A prospective analysis was done in a tertiary care hospital for a duration of 6 months from October 2017-March 2018. Those patients who are clinically suspected of having GERD despite being on single dose of PPI therapy for at least 4 weeks were included in the study. pH data was analyzed for 24 hours and were done for total; supine and upright periods. Abnormal reflux parameters were defined by applying three criteria: DeMeester score greater than 14.72; pH less than 4.0 more than 5.5% of the total time, more than 6.3% of the time upright, or more than 3% for the time supine position and pH less than 4 for more than 1.6% of the total time.

***Results:*** A total of 32 patients were included in the study. All these patients were referred by gastroenterologists for evaluation of GERD. 24 patients were males while 8 were female patients. The mean age of the patients was 34. De Meester score was greater than 14.72 in eighteen(57%) patients. If the second or third criteria were applied; it was abnormal in twenty two (69%) patients.

***Conclusion:*** In a patient population assessed by a specialist as clinically suspected GERD that is not responding to PPI therapy; a substantial number of patients will have abnormal esophageal pH results. Thus pH testing is important in the evaluation of refractory GERD.

***Keywords:*** Ambulatory pH metry study, reflux

***PP-250***

## *Knowledge, awareness and attitudes about hepatitis b infection and its vaccine among health care workers at a tertiary care centre in eastern India*

**Ayaskanta Singh, Jimmy Narayan**

*Ims And Sum Hospital, Soa University, India*

***Background/Aims:*** Hepatitis B virus (HBV) infection is a major health problem worldwide. There is a very effective vaccine to prevent this HBV infection from transmission. In order to eradicate and prevent this infection proper community awareness is necessary. Health care workers(HCWs) are at high risk from contracting this disease from needle stick injury and contaminated blood. The aim was to assess the knowledge, awareness and attitudes about HBV infection and its vaccine among HCWs at a tertiary care centre in eastern India.

***Materials and Methods:*** The study was carried out among 210 numbers of randomly selected HCWs of IMS and SUM Hospital. The HCWs of the hospital was subjected to questionnaire about different aspects of HBV infection and its vaccine.

***Results:*** Majority of the participants were females (90%). A large majority(>95%) of the participants were aware of HBV infection and vaccination and all these persons have been vaccinated against HBV. Most of the health care workers(>90%) were aware that hepatitis B spread through infected blood, infected razors and vertical transmission Almost everyone (97%) were aware that HBV affects the liver. About 2/3rd of the participants correctly said that that the virus can lead to acute liver failure, cirrhosis and hepatocellular carcinoma. Most (88%) participants said that HBV infected patients can lead normal life with family members. When asked that if one is vaccinated against HBV & gets a needle prick injury, only 5% correctly said that nothing needs to be done if one is adequately vaccinated. When asked if one is not vaccinated & gets needle prick from a HBV infected person, then majority (89%) of the HCWs said one need to take HBV immunoglobulin alone. When asked regarding the need for booster dose after completion of vaccination, only 37% of the HCWs correctly said that there was no need of taking booster dose again.

***Conclusion:*** There is very good awareness and knowledge regarding HBV infection and its vaccine among the HCWs. This is probably due the practise of universal and free vaccination that the hospital follows, as almost 95% were vaccinated adequately against HBV infection. There is also good knowledge regarding different aspects of HBV infection among the HCWs.

***Keywords:*** HBV, KAP gap, HCWs, Practice, vaccination

---

***PP-251***

## *Endoscopic diagnosis of hiatal hernia, about 110 cases*

**Maria Kadi, Omar Bahlaoui, Fouad Haddad, Mohamed Tahiri Joutei Hassani, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Department of Hepatogastroenterology, Ibn Rochd Hospital University Center, Casablanca, Morocco*

***Background/Aims:*** Hiatal hernia is a common pathology. There are two main types of this pathology: sliding hiatal hernia and rolling or paraesophageal hiatal hernia. The former type is the most frequent, it may be asymptomatic or associated with gastroesophageal reflux. The symptoms associated with the latter type are very heterogeneous (basi-thoracic pains, dyspnea, regurgitation, recurrent pneumonias, iron deficiency anemia). The aim of our work is to study the contribution of upper gastrointestinal endoscopy in the diagnosis of hiatal hernia.

***Materials and Methods:*** Retrospective study, collecting 110 patients admitted in our unit between January 2017 and January 2019 for upper endoscopy. The inclusion criterion was the presence on examination of an endoscopic aspect of a hiatal hernia. (The cases having the hernia pocket length of less than 2 cm or unspecified were excluded).

***Results:*** The patient age ranged from 20 to 86 years averaging at 51.95 years. The sex ratio F/M was 0.73. In 98.2% of cases (N=108) hiatal hernia was of type 1 (sliding hernia) and in 1.8% (N=2) of type 2 (rolling hernia). Heartburn was reported by 44.5% of patients (N=49). In a majority of patients 65.5% (N=72) hiatal hernia was without signs of oesophagitis. Non-severe esophagitis was found in 19.1% (N=21) of the cases, severe oesophagitis in 10.9% (N=12) of the cases, and complicated oesophagitis (endobrachyesophagus, stenosis, ulcer) in 4.5% (N=5) of the cases. The length of the hernia pouch was ≤ 3 cm in 66.7% of cases (N=72), between 4 and 5 cm in 26.9% of cases (N=29) and ≥ 6 cm in 6.4% of cases case (N=7). The larger hernia size was associated with females (p=0.027). There is also a very weak correlation between the hernia length and the age (R=0.205, p=0.035), however it is not associated with the heartburn nor with the severity of oesophagitis.

***Conclusion:*** In our study, hiatal hernia was associated with esophagitis in one third of the cases. In the majority of patients, small hernias ≤ 3 cm were found. The larger hernia size was associated with female sex and older age. However, it was not associated with the heartburn or severity of oesophagitis.

***Keywords:*** Hiatal hernia, oesophagitis

---

***PP-252***

## *Reduction of positive rates of Helicobacter Pylori (HP) through quality improvement (QI)*

**Cheh Kuan Tai[1], Imogen Welding[2], Jaclyn Yizhen Tan[3], James Greenan[1], Laura Marelli[1]**

*[1]Homerton University Hospital, London, UK*
*[2]North Middlesex University Hospital, London, UK*
*[3]University College London Medical School, London, UK*

***Background/Aims:*** 5% of functional dyspepsia may be attributed to HP. The prevalence of HP in the United Kingdom is approximately 40%. Current guidelines recommend eradication for dyspeptic patients with HP. Eradication may be difficult due to inadequate concordance with therapy and rising antibiotic resistance. However, we found a disproportionately high percentage of patients had positive rapid urease test (RUT) on gastroscopy in our unit.

***Materials and Methods:*** Our endoscopy unit used a RUT kit which required up to an hour for interpretation. Therefore, all kits were read in the evening. The delay in reading results was postulated to be the cause of high positive rates. From the 13th of April 2018, an alternative kit which requires up to 5 minutes for interpretation has been used.

***Results:*** From 13/10/18 to 12/4/18, 780 gastroscopies with RUT were performed. 546 (70%) tested positive. A review of 50 patients who had histology showed despite 31 positive RUT, only 10 had HP organisms. None which tested negative had HP organisms on histology. From 13/4/19 to 12/10/19, 589 gastroscopies with the new RUT were performed. 160 (27.16%) tested positive. A review of 50 patients who had histology showed 11 positive RUT with 8 having HP organisms. 2 has negative RUT but had HP organisms on histology. A further review of practice revealed potential underreporting of positive results and an education session was delivered in February 2019. From 1/3/19 to 31/5/19, 631 gastrocopies with RUT were performed with 226 (35.8%) positive RUT.

***Conclusion:*** Our QI project show that changing the way RUT is reviewed can lead to more accurate rates of positive RUT in patients with dyspepsia and reduce inappropriate antibiotic prescribing.

***Keywords:*** Helicobacter pylori, quality improvement

***PP-253***

## *Hypertriglyceridemia-induced pancreatitis during pregnancy*

**Imogen Welding[2], Cheh Kuan Tai[1], Harry Martin[3]**

*[1]Homerton University Hospital, London, UK*
*[2]North Middlesex University Hospital, London, UK*
*[3]University College Hospital London, London, UK*

Hypertriglyceridemia is an established but rare cause of acute pancreatitis. Pre-existing disease can be exacerbated by physiological changes to lipid metabolism during pregnancy, causing severe hypertriglyceridemia and complications such as pancreatitis. A 35 year-old woman with known hypertriglyceridemia presented with acute pancreatitis at 14 weeks gestation. Triglycerides on admission were 39.4mmol/L and pancreatitis was confirmed by Computed Tomography (CT). The patient was managed in intensive care with respiratory support, dextrose, insulin, heparin, omacor and fenofibrate. The patient subsequently developed an E. coli bacteraemia, which Magnetic Resonance Cholangiopancreatography (MRCP) demonstrated was secondary to cholecystitis with localised gall bladder perforation. This was managed with a cholecystostomy. The patient gave birth to a healthy girl after spontaneous rupture of membranes at 30 weeks gestation. Two months post-delivery triglycerides were 1.1mmol/L. This complex case highlights several important points. First, it was initially considered that the pregnancy could be driving the hypertriglyceridemia, raising the suggestion of termination. However, gallstone disease remains the most common cause of pancreatitis in pregnancy, suggesting that this should have been considered alongside the rarer differential of hypertriglyceridemia from the outset. Second, the patient had triglycerides of 28.4mmol/L prior to pregnancy, managed by dietary restriction due to concerns over the risks of medical management after conception. Successful dietary management is difficult under normal circumstances, and even more so during pregnancy, and it is conceivable that a more aggressive approach may have prevented the later life-threatening presentation. Clarification of guidelines may prevent potentially avoidable cases such as this in the future.

***Keywords:*** Pancreatitis, pregnancy, hypertriglyceridemia

---

***PP-254***

## *Haemophagocytic lymphohistiocytosis (HLH) presenting with liver failure: A diagnostic conundrum*

**Cheh Kuan Tai[1], Imogen Welding[2]**

*[1]Homerton University Hospital, London, UK*
*[2]North Middlesex University Hospital, London, UK*

While deranged liver function test is not part of the criteria for diagnosing HLH, up to 90% of patients are reported to have transaminases greater than 3 times upper limit of normal. Over 80% of patients will present with jaundice. In our case series, we describe a patient who developed HLH secondary to HSV hepatitis. This patient went on to die with multi-organ failure. Our second patient presented with acute liver failure and pancytopenia. His bone marrow biopsy showed HLH secondary to lymphoma. He died in intensive care from septic shock and multi-organ failure. Our third patient was initially described as having HLH but had liver failure attributed to a drug induced liver injury which was proven on biopsy. His jaundice improved with steroid therapy. Our final patient was diagnosed with HLH without a clear precipitating cause. She had a liver biopsy which was essentially normal. Subsequently she developed liver failure and did not respond to steroids which were initiated for HLH. She also died of multi-organ failure. This case series demonstrates how HLH and acute liver failure can be difficult to differentiate. HLH should be part of the differential diagnosis in cases of liver failure and multiple organ dysfunction.

***Keywords:*** Haemophagocytic lymphohistiocytosis, acute liver failure

***PP-255***

## *Incidence of intussusception of children under-five-year, a pre-rotavirus vaccine retrospective survey from Tehran, 2010-2015*

**Joulani Mohammadamin[1], Sayyahfar Shirin[2], Esteghamati Alireza[2], Elahian Boroujeni Azinmehr[1]**

*[1]Student Research Committee, School of Medicine, Iran University of Medical Sciences (IUMS), Iran*
*[2]Research Center of Pediatric Infectious Diseases, Institute of Immunology And Infectious Diseases, Iran University of Medical Sciences, Iran*

***Background/Aims:*** Intussusception is one of the most common causes of acute intestinal obstruction in children. Association between rotavirus vaccine with intussusceptions was reported. Recently rotavirus vaccine is being planned to be included in Iran's national immunization program. The aim of this surveillance was to determine the baseline data of intussusception in under-five-year age group in Iran to facilitate the monitoring of potential side effects after the introduction of rotavirus vaccine.

***Materials and Methods:*** This hospital-based historical cohort study reviewed children under 60 months years old with the final diagnosis of intussusception, based on ICD-10 code K56.1, using census method in all hospitals of Tehran, Iran from March 2010-2015. Demographic, Clinical manifestations, Diagnostic and Treatment methods, and outcome of patients aged less than 5 years with diagnosis of intussusception were gathered from Medical and Surgical records by checklist. Data analyzed using SPSS V.24.

***Results:*** In this study, 759 patients with diagnosis of intussusception were detected, of which 525 (69.2%) were male. 309 (40.7%) of the cases were under one year old 1 year. The mean (±SD) age of the patient's 19.63±13.21 months. Annual incidence of intussusception was 66.54 cases per 100'000 children=<1 year and 31.61 cases per 100'000 children<5 years. Highest incidence of the disease was detected in the spring (32.3%) and autumn (26.6%) in comparison to other seasons. The most common symptom and sign were abdominal pain/Irritability (94.2%) and tenderness (24.2%), respectively. The diagnosis was performed by ultrasonography in 75.9% of the cases. The most frequent anatomic location was ileocolic region (57.49%). The most common treatment method was barium enema. The mean duration of hospital stay was 3.46±2.38 days with a median of 3 days. No deaths due to invagination or subsequent complications were identified.

***Conclusion:*** This surveillance has provided a baseline data of childhood intussusception prior to the introduction of the rotavirus vaccination in Tehran to provide a better comparison with post-introduction data.

***Keywords:*** Rotavirous, vaccination, intussusception

---

***PP-256***

## *Cholangiocarcinoa; the sleep quality and its factor in association with it*

**Masoudreza Sohrabi[1], Ali Gholami[3], Meysam Abolmaali[2], Sheida Aghili[1], Marzieh Hajibaba[1]**

*[1]Gastrointestinal and Liver Diseases Research Center, Iran University of Medical Sciences, Iran*
*[2]Student Research Committee, School of Medicine, Iran University of Medical Sciences (IUMS), Iran*
*[3]Noncommunicable Diseases Research Center, Neyshabur University of Medical Sciences, Neyshabur, Iran*

***Background/Aims:*** Cholangiocarcinoma is one othe most fetal cance the may has increasing trend in our region recently. There may be a mutual relation between sleep quality and cancer progression. The aim of this study was to determine the sleep quality according to Pittsburgh among patients with cholangiocarcinoma.

***Materials and Methods:*** In across-sectional study between 2015 – 2019 in a referral hospital the data regarding to sleep quality and quantities of patients with new diagnosed of cholangiocarcinoma, were evaluated. Sleep quality were assessed by Pittsburgh sleep quality index (PSQI). A multivariable logistic regression model was used to assess the independent effects of different factors on sleep quality.

***Results:*** One hundered and thirty five patients involved in this study. The cancer confirmed via pathology. The mean age was 64.1±13.5 years. Seventy one percent of patients had poor sleep quality (PSQI>5) and the other had good sleep quality (PSQI≤5). After adjusting for other variables, there was a significant association between age (OR=0.34, 95% CI: 0.12-0.97, p=0.045) and history of chronic diseases (OR=2.65, 95% CI: 1.1-6.3, p=0.027) with sleep quality. Also, depression had a borderline association with sleep quality ( p=0.055).

***Conclusion:*** In this study, we reveild that, a strong association was observed between sleep quality with age and history of chronic diseases in patients with cholangio carcinoma.

***Keywords:*** Cholangiocarcinoma, sleep, age

---

***PP-257***

## *Comparing the efficacy of 14-days concomitant and 14–days reverse hybrid regimens in Helicobacter pylori eradication*

**Seyed Mohammad Valizadeh Toosi, Elham Salmaliaan, Iradj Maleki**

*Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*

***Background/Aims:*** *Helicobacter pylori* (HP) is a gram-negative bacillus that has strong association with chronic gastritis and peptic ulcer disease (PUD). It is recommended that HP eradication is performed in all patients with PUD, gastric cancer and other cases. HP infection is difficult to treat, and successful treatment requires two or more antibiotics. Different regimens with varying degrees of effectiveness and side effects were recommended. The purpose of this study was to compare the effect of 14-days reverse hybrid regimen with standard 14-days concomitant regimen for HP eradication.

***Materials and Methods:*** This study was a randomized clinical trial on 317 patients with dyspepsia and *HP* infection that were candidate for *HP* eradication. One hundred fifty three patients in reverse hybrid group and 164 patients in concomitant group entered the study. In the 14 days reverse hybrid regimen, patients received pantoprazole 40 mg, amoxicillin 1000 mg, clarithromycin 500 mg and metronidazole 500 mg every 12 hours in first 7 days. Within the next 7 days, clarithromycin and metronidazole were discontinued and only pantoprazole, amoxicillin were continued with the same dose (PAMC-7 days & PA-7 days). In the 14-days concomitant regimen, patients received pantoprazole 40 mg, amoxicillin 1000 mg, clarithromycin 500 mg and metronidazole 500 mg every 12 hours for 14 days. (PAMC-14 days). Eighty weeks after end of treatment, *HP* eradication was evaluated by Urea breath test, pathology and RUT, and or *HP* stool antigen test. Demographic data and endoscopic and pathologic findings of all patients were recorded. Drug side effects were investigated in all patients. Data were analyzed using SPSS software version 16.

***Results:*** We enrolled 317 patients in the study. Two hundred and eighty-one patients completed the study. Twenty patients in the reverse hybrid group and 16 patients in the Concomitant group did not continue to study. In reverse hybrid group, 37.5% were male and 62.5% were female and in concomitant group, 48.2% were male and 51.8% were female. The mean age of the patients in reverse hybrid group and the concomitant group was 45±13 and 46±14, respectively. There was no significant difference in the history of drug usage including ASA, NSAIDs, and Plavix and history of gastrointestinal bleeding and smoking. The eradication rates by Per-protocol analysis were 85.8% (109/127) in the reverse hybrid regimen and 88.9% (137/154) in the standard concomitant regimen (p=0.42). The eradication rates by intention-to-treat analysis were 71.2% (109/153) in the reverse hybrid regimen and 83.5% (137/164) in the standard concomitant regimen (p=0.007). 37.9% of patients in reverse hybrid and 33.5% in concomitant did not have any complications. The most

common complication was bitter taste, which was 43.9% and 29% of patients of two groups respectively. Other drug side effects were rare in both groups.

***Conclusion:*** According to Dr Graham's study in *HP* eradication, both 14-days reverse hybrid regimen and 14-days concomitant regimen have a good response rate in *HP* eradication. In both groups, drug side effects were mild and tolerable for patients.

***Keywords:*** *Helicobacter pylori* eradication, reverse hybrid, concomitant, dyspepsia

---

***PP-258***

## *Anti-infliximab antibody and infliximab level in patients with inflammatory bowel disease: Clinical utility and related factors*

**Ali Reza Sima[1], Amir Anushirvani[1], Homayoon Vahedi[1], Bahar Saberzadeh Ardestani[1], Bardia Khosravi[1], Ali Saeidpour Parizi[2]**

*[1]Tehran University of Medical Sciences, Digestive Diseases Research Institute, Tehran, Iran*
*[2]Kerman University of Medical Sciences, Kirman, Iran*

***Background/Aims:*** Anti-infliximab Ab and sub therapeutic infliximab concentrations are one of the causes of reduced response in patients with inflammatory bowel disease. In this study, the prevalence of anti-infliximab antibodies, its related factors and the role of antibodies in the clinical response of IBD patients have been evaluated.

***Materials and Methods:*** In this study, 38 patients with inflammatory bowel disease (21 patients with ulcerative colitis and 17 patients with crohn's disease) which lasted at least 14 weeks after the onset of treatment, the serum levels of Infliximab and Anti-infliximab Ab were evaluated in a three-month period and demographic information and clinical severity assessment were completed by a questionnaire.

***Results:*** Antibodies against infliximab were seen in 8 patients (21%). History of smoking and surgery, external bowel manifestations, concomitant use of immunomodulatory drugs, drug dosage, and type of disease were not associated with the development of antibodies. But female gender (p=0.045) and duration of therapy (p=0.017) were associated with an increased risk of antibody formation on the other hand, anti-infliximab antibodies were associated with severity of disease, reduced serum trough levels, and reduced clinical response. The serum trough level was higher in patients with complete clinical response compared with those without clinical response.

***Conclusion:*** Measuring the serum levels of Infliximab and its antibodies in IBD patients with inadequate clinical response seems to be helpful, but it does not contribute to clinical decision-making in patients with the complete clinical response.

***Keywords:*** Inflammatory bowel disease, infliximab, anti-infliximab antibody

---

***PP-259***

## *Prediction of malignancy of BD-IPMN according to high risk stigmata and worrisome features*

**Jong Kyun Lee, Jae J. Kim**

*Samsung Medical Center, Seoul, Korea*

***Background/Aims:*** Most of the resected BD-IPMN are still benign and surgical indication of BD-IPMN is still controversial. Based on the high risk stigmata (HRS) and worrisome feature (WSF) presented in the International Consensus Guidelines 2012, we investigated the prediction of malignancy and optimal timing of surgery for BD-IPMN.

***Materials and Methods:*** From January 2000 to December 2016, operatively confirmed BD-IPMN (n=116) was divided into benign (low grade dysplasia; LGD) (n=99, 85.3%) versus malignant BD-IPMN (high grade dysplasia; HGD and invasive carcinoma) (n=17, 14.7%) and LGD (n=99, 91.7%) versus HGD (n=9, 8.3%). Logistic regression analysis was performed to identify the predictors of malignant BD-IPMN or HGD and to analyze the predictability of malignant BD-IPMN or HDG according to the combination of HRS and WSF counts.

***Results:*** The most powerful predictor of malignant BD-IPMN was enhancing solid component (OR, 33.933; 95% CI, 6.194-185.89; p-value, <0.0001). One HRS with one or more WSFs combination could predict Malignant BD-IPMN statistically significant (OR, 128.331; 95% CI, 3.644-999.999; p-value, 0.0076). The predictor of HGD was also enhancing solid component (OR, 30.172; 95% CI, 3.071-296.484; p-value, 0.0035). One HRS with one or more WSFs combination could predict HGD statistically significant (OR, 91.681; 95% CI, 2.302-999.999; p-value, 0.0162).

***Conclusion:*** Considering the results of this study and the risk of surgery, it is reasonable to recommend surgery if there is enhancing solid component or another HRS with one or more WSF.

***Keywords:*** Malignancy, BD-IPMN, high risk stigmata, worrisome features

---

***PP-260***

## *Hepatitis B reactivation in patients with previous hepatitis B exposure–Don't jump, wait!*

**Chin Kimg Tan[1], Tiffany Tang[2], Mohamad Farid[2], Alexandre Chan[2], Reina Lim[1], Wan Cheng Chow[1], Rajneesh Kumar[1]**

*[1]Singapore General Hospital, Outram Road, Singapore*
*[2]National Cancer Centre Singapore, Singapore*

***Background/Aims:*** Subjects with previous hepatitis B virus (HBV) exposure, defined as having non-reactive HBs Ag, positive anti-HBc with undetectable HBV DNA viral load (VL), are at risk of HBV reactivation after receiving immunosuppressive therapy (IST) or chemotherapy. In this group of patients, pre-emptive therapy instead of treatment prophylaxis has been shown to be safe, even in those at high risk of HBV reactivation. Evidence supporting the management of HBV reactivation without HBsAg sero-reversion is lacking and timing of treatment of HBV reactivation needs to be addressed. We aim to determine if it is safe to monitor patients with previous HBV exposure who develop HBV reactivation without treatment.

***Materials and Methods:*** Patients with previous HBV were monitored for HBV reactivation after administration of IST or chemotherapy with serial LFT and HBV DNA viral load (VL) every six to twelve weekly. HBV reactivation is defined as any detectable HBV VL or reappearance of HBsAg. Treatment with nucleos(t)ide analogues (NA) is initiated if there is either (a) HBsAg sero-reversion or (b) persistently raised HBV VL more than 2 log IU/mL or (c) raised alanine transaminase (ALT) more than upper limit of normal with HBV VL more than 1.3log IU/mL.

***Results:*** Sixteen patients were identified to have HBV reactivation; of which twelve received rituximab-based chemotherapy. Seven patients had reactivation with peak VL of less than 1.3log IU/mL. The other nine patients had reactivation with VL ranging from 2 log IU/mL to 4 log IU/mL. None of the patients develop hepatitis flare or raised ALT. Four patients were started on NA for the following reasons: one had hepatocellular carcinoma with low VL <1.30 log IU/mL (B) and the other three patients had raised VL ranging from 2.06log IU/mL to to 4.04log IU/mL (A, C and D). Two patients (G and J) refused HBV treatment despite meeting criteria for treatment, of which one (J) had HBsAg sero-reversion twelve months after completing Rituximab. Both patients had subsequent drop in VL to less than 2log IU/mL with persistently normal ALT.

***Conclusion:*** HBV reactivation may resolve spontaneously without treatment. Therefore, it is safe to monitor patients with previous HBV exposure who developed HBV reactivation after receiving immunosuppressive therapy.

***Keywords:*** Previous hepatitis B exposure, hepatitis B virus reactivation, pre-emptive therapy

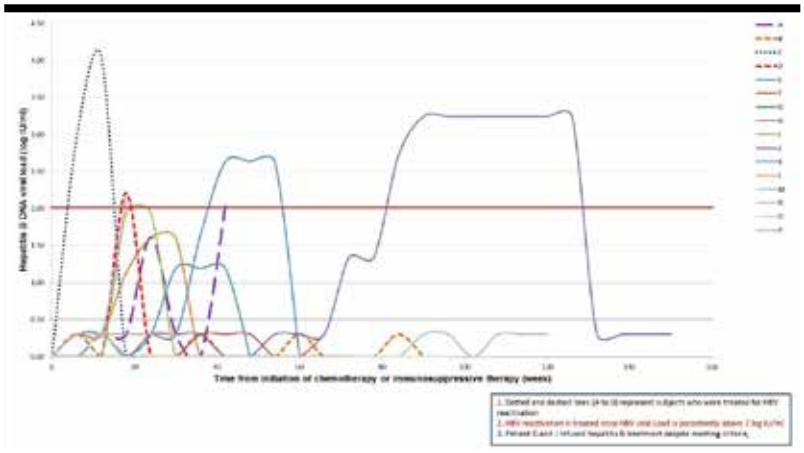


**Figure 1.** HBV DNA viral load trend in patients with previous HBV exposure who developed HBV reactivation.

***PP-261***

## *Accuracy of CT scan in determining nodal involvement in colorectal cancer*

**Marsela Sina[1], Skerdi Prifti[1], Ilir Akshija[2], Adea Kocollari[1], Dorina Osmanaj[1], Aleks Sulejmani[3]**

*[1]University Clinic of Gastrohepatology, University Hospital Center Mother Teresa, Tirana, Albania*
*[2]Department of Statistics, University Hospital Center Mother Teresa, Tirana, Albania*
*[3]Department of Internal Medicine, Regional Hospital, Fier, Albania*

***Background/Aims:*** Preoperative staging of colorectal cancer (CRC) and especially nodal staging is a key factor for the introduction of neoadjuvant chemotherapy. The aim of this study is to evaluate the accuracy of pre-operative nodal staging by CT scan.

***Materials and Methods:*** This was a prospective study carried out at the University Clinic of Gastrohepatology, University Hospital Center Mother Teresa in Tirana, Albania. Of 262 consecutive patients diagnosed with CRC by colonoscopy and confirmed by histopathology, 236 underwent subsequent surgical tumor and nodal resection at the University Clinics of Surgery, during January 2011- September 2016. Preoperative CT scan nodal staging and postoperative histological findings were compared. Overall accuracy and accuracy for each nodal substaging was evaluated. The weighted Kappa coefficient was calculated, along with its 95% confidence interval, to estimate the agreement between the two modalities.

***Results:*** Nodal staging was correctly determined in 131 out of 236 (55.5%) patients. 44/236 (18.6%) patients were under-staged, while 61/236 patients (25.9%) were over-staged (Table 1). Accuracy for N0, N1, and N2 was 71.9%, 59.32% and 80.51% respectively. The agreement between CT scan and postoperative histological nodal staging evaluation was fair with a weighted Kappa coefficient of 0.286 (95% 0.237- 0.334), p<0.001.

***Conclusion:*** Overall accuracy of CT scan in determining nodal staging in CRC patients is 55%. The accuracy in evaluating N0 and N2 is significantly higher than that in determining N1 substage (p<0.001). Appropriate N1 staging remains still challenging and important on regard of therapeutic modalities.

***Keywords:*** Colorectal cancer, nodal stage, CT scan

***Table 1.*** Correlation of CT scan and histological findings for nodal staging

| CT Scan | Histological findings | | | |
|---|---|---|---|---|
| | N0 | N1 | N2 | Total |
| N0 | 45 | 14 | 2 | 61 |
| N1 | 45 | 72 | 28 | 145 |
| N2 | 7 | 9 | 14 | 30 |
| Total | 97 | 95 | 44 | 236 |

***PP-262***

## *Behavior of the general practitioners, cardiologists and otolaryngologists towards patients with referred symptoms suggesting gastroesophageal reflux disease (Gerd)*

**Decio Chinzon[1], Joaquim Prado P. Moraes-filho[1], Gerson Domingues[2], Fabiana Roveda[3], Abner Augusto Lobao-neto[4], Schlioma Zaterka[1]**

*[1]University of Sao Paulo Medical School, Sao Paulo, Brazil*
*[2]Rio Janeiro State Medical School, Rio de Janeiro, Brazil*
*[3]Novartis*
*[4]Takeda Pharmaceuticals*

***Background/Aims:*** Brazilian and American guidelines are available with the aim of guiding decisions and criteria regarding diagnosis, management, and treatment in specific areas of healthcare. Symptoms such as heartburn and regurgitation are frequent in gastroenterology outpatient care settings, drawing attention to the potential identification of GERD. Assess the conduct adopted towards patients with typical symptoms of GERD (heartburn and regurgitation) in a population of general practitioners (GPs), cardiologists and otolaryngologists (ENTs).

***Materials and Methods:*** Physicians were interviewed online (during the period from August 6th to September 12th, 2018). A structured questionnaire was applied in order to explore their conduct when exposed to patients describing heartburn and regurgitation symptoms. The following variables were analyzed: exams solicited for diagnostic confirmation of the GERD hypothesis and treatment prescribed according to symptoms severity.

***Results:*** 377 GPs, ENTs, and cardiologists were interviewed, from which 65% request exams for diagnosis confirmation of GERD. Esophagogastroduodenoscopy was the most frequent one (68%). However, among the ENTs, nasofibroscopy is the most frequently requested exam (66 [73%]).Most physicians classified the symptoms as mild (136 [53%]), moderate (84 [33%]) or severe (36 [14%]).The most frequent recommendation in terms of treatment was behavioral changes in lifestyle, ranging from 84% for mild cases down to 62% for the most severe cases. Proton-pump inhibitors are the most prescribed medications, regardless of the intensity of the symptoms. Furthermore, among the 90 ENTs, referral to an appointment with the gastroenterologist was the most frequent conduct (84 [93%]). Finally, physicians considered that GERD symptoms impact the quality of life on various degrees in 89% of the patients, being sleep disorder the second most frequent impact and patient's mood the third one.

***Conclusion:***Considering this relatively large cohort of GPs, cardiologists and ENTs we conclude that most of them follow the main recommendations of guidelines regarding diagnosis, management, and treatment in patients with typical symptoms suggesting GERD.

***Keywords:*** Gastroesophageal reflux disease, heartburn, regurgitation

***PP-263***

## *Heartburn/regurgitation: Its impact on the well-being of persons in Brazil*

**Joaquim Prado De Moraes-filho[1], Gerson Domingues[2], Decio Chinzon[1], Fabiana Roveda[3], Abner Augusto Lobao-neto[4], Schlioma Zaterka[1]**

*[1]University of Sao Paulo Medical School, Sao Paulo, Brazil*
*[2]Rio Janeiro State University Medical School, Rio de Janeiro, Brazil*
*[3]Novartis*
*[4]Takeda Pharmaceuticals*

***Background/Aims:*** Heartburn and regurgitation (typical symptoms) are mostly attributed to gastroesophageal reflux disease (GERD) but may also be related to other illnesses such as functional pyrosis. Depending on the intensity and frequency of such symptoms, the well-being (and consequently the quality of life) may be significantly impaired. The objective of this study was to evaluate the impact of heartburn/regurgitation on the well-being of patients with typical symptoms in Brazil.

***Materials and Methods:*** The impact of heartburn and regurgitation symptoms on patient well-being was evaluated by a numeric scale from 0 to 10 (0=no impact; 10=very intense). Subjects answered the following questions via telephone, with attention to the numeric scale (during the period from August 6$^{th}$ to September 12$^{th}$, 2018): 1. Have you had symptoms (heartburn/regurgitation) in the past 6 months? 2. If yes, how many times did you have these symptoms in the last week? 3. How significant was the impact in your well-being?

***Results:*** 1,773 subjects (females: 52%) with an average of 40 years old were interviewed. 52% did not have upper digestive symptoms. 48% confirmed upper digestive symptoms. 42% of subjects confirmed heartburn/regurgitation in the last 6 months. Among those who confirmed heartburn/regurgitation, 536 (39%) had experienced symptoms in the last week. The well-being results were scored on an average of 6.1. Women were more affected than men (6.8 vs. 5.5 according to scale). 28% of subjects did not associate their symptoms to GERD.

***Conclusion:*** Heartburn/regurgitation was very frequent in this cohort of adults in Brazil. These symptoms generated a substantial impact on the well-being of this population, women being more affected than men.

***Keywords:*** Heartburn, regurgitation, well-being

---

***PP-264***

## *Role of education and economic level in colorectal cancer in Albania*

**Marsela Sina[1], Adea Kocollari[1], Skerdi Prifti[1], Ilir Akshija[2]**

*[1]University Clinic of Gastrohepatology, University Hospital Center Mother Teresa, Tirana, Albania*
*[2]Department of Statistics, University Hospital Center Mother Teresa, Tirana, Albania*

***Background/Aims:*** Colorectal cancer (CRC) is the third most common malignant disease in both sexes, with an worldwide incidence that varies from 5 to 50 per 100,000. This variation suggests a strong influence of environmental factors. The existing evidence on regard of economic and educational influence on CRC risk, is inconclusive. The aim of our study was to evaluate the relationship between both economic and educational level and CRC in Albania.

***Materials and Methods:*** This was a prospective, case-control study, conducted at the University Clinic of Gastrohepatology, University Hospital Center Mother Teresa in Tirana, Albania from January 2011- September 2016. A detailed questionnaire about economic and eduactional level, was filled for/by CRC patients and healthy individuals in the

control group. Multivariable analysis was used to determine associations between patient characteristics and different categories of educational and economical levels. Statistical analysis was made with Chi-square (p-value, significance level: 0.05).

***Results:*** A total number of 262 patients with CRC (56.2% M: 43.8% F); and 400 healthy individuals (56.1% M: 43.9% F) were enrolled in this study. The mean age at diagnosis was 62.7±10.1 years old.We found a higher high level of education and a lower low level of education among controls than CRC group (33.5% *vs* 15.3%; 25.8% *vs*38.2%,p<0.001 respectively). Regarding the economic status we also found higher high economic level and a lower low economic level among controls than CRC group (11% vs 5.3%; 12.5% 38.5%, respectively p<0.001).

***Conclusion:*** CRC risk seems to be lower among individuals with a higher education and economic level compared to subjects with a lower education and economic level. These interesting findings need further investigation in large-scale observational studies in our country.

***Keywords:*** Colorectal cancer, education level, economic level

---

***PP-265***

## *Effects of bariatric surgery for obesity on gastroesophageal reflux disease: Systematic review and meta analysis*

**Abdel-naser Elzouki, Muhammad-aamir Waheed, Salah Suwileh, Karim Bayoumi, Dayyan Adoor, Abdul Badi Abou Samra, Osama Tashani**

***Background/Aims:*** Obesity is associated with increased incidence of gastroesophageal reflux disease (GERD), and it has been suggested that GERD symptoms may be improved by weight reduction. However, various patterns of bariatric surgery may affect symptoms of GERD due to the changed anatomy of stomach and esophagus. The aim of this systematic review and meta-analysis is to analyze the effect of bariatric surgery on GERD.

***Materials and Methods:*** A systematic literature search was performed using PubMed, EMBASE and the Cochrane Library from inception to December 2018, combining the words obesity, gastroesophageal reflux with different types of bariatric surgery and weight loss. The methodological quality of randomized controlled trials and non-randomized controlled trials published in English and have at least one year follow-up data were included and assessed by Cochrane Collaboration's tool for assessing risk bias and Newcastle-Ottawa scale. Case series or case reports were excluded.

***Results:*** 224 studies were analyzed and a random effect model of meta-analysis was conducted on 38 studies which clearly reported the improvement outcomes in GRED after Bariatric surgery. Out of 5356 patients who underwent either Laparoscopic Sleeve Gastrectomy (LSG) (34 studies) or Roux-en-Y gastric bypass (4 studies), 32.4% experienced improvement in the GRED symptoms (95% CI 20.62 to 45.45). 23 of 32 LSG reported an improvement of GERD, whereas a positive effect on GERD was found in all Roux-en-Y gastric bypass. There was a high degree of publication bias and heterogeneity ($I^2$=98.9%).

***Conclusion:*** GERD may improve in obese patients who underwent LSG, however, the most favorable effect is likely to be found after Roux-en-Y gastric bypass. The high heterogeneity found in the study suggesting this overall effect should be interpreted cautiously. Future studies that objectively evaluate GERD after bariatric surgery, especially LSG, are needed to more clearly define its effect on GERD in bariatric patients.

***Keywords:*** Bariatric surgery, gastroesophageal reflux disease, obesity, sleeve gastrectomy, gastric bypass, meta-analysis

***PP-266***

## *Randomized, controlled trial of abdominal vibration stimulation and walking exercise for bowel cleansing before colonoscopy*

**Kee Myung Lee[1], Jin Hong Kim[1], Jae Keun Kim[2], Choong-kyun Noh[1], Sun Gyo Lim[1]**

*[1]Department of Gastroenterology, Ajou University School of Medicine, Suwon, Republic of Korea*
*[2]Department of Radiology*

***Background/Aims:*** Adequate bowel preparation is important to perform colonoscopy. We prospectively evaluated the clinical feasibility and validity of abdominal vibration stimulation for bowel preparation compared with walking exercise before colonoscopy.

***Materials and Methods:*** In this randomized, prospective, investigator-blind, single center study, 256 inpatients undergoing elective colonoscopy were randomized into two groups. The same volume of polyethylene glycol (PEG) solution was used for bowel cleaning in all patients. The walking group (n=100) walked more than 3,000 steps, whereas the vibrator group (n=100) received abdominal vibrator stimulation with limited walking before colonoscopy. After examination, we recorded the procedure results and adequacy of bowel preparation by using the Boston Bowel Preparation Scale (BBPS).

***Results:*** There were no significant differences between the walking group and vibrator group in instances of diarrhea after consuming PEG (11.18±3.18 vs. 11.23±3.45, p=0.915), time of first diarrhea after taking PEG (114.9±37.57 vs. 109.3±41.10 min, p=0.320), total procedure time (40.43±23.37 vs. 35.16±25.78 min, p=0.132), patient satisfaction (4.21±0.82 vs. 4.25±0.83, P=0.137), and bowel preparation quality (total BBPS score: 7.39±1.55 vs. 7.38±1.55, p=0.297). The vibrator group was superior to the walking group in cecal intubation time (7.93±5.05 vs. 5.96±2.63 min, p<0.001) and injected dose of meperidine (48.94±9.74 vs. 44.87±10.16 mg, p=0.014).

***Conclusion:*** Bowel preparation accompanied with abdominal vibration stimulation showed almost similar results to the conventional methods for adequate bowel cleansing. Bowel preparation with abdominal vibration stimulation is expected to help with proper bowel cleansing for therapeutic colonoscopy in patients with gait disturbance.

***Keywords:*** Colon preparation, vibration stimulation, colonscopy

---

***PP-267***

## *Retrospective evaluation of corrosive agents: Single center experience*

**Mustafa Zanyar Akkuzu, Osman Özdoğan, Serkan Yaraş, Enver Üçbilek, Fehmi Ateş, Engin Altintaş, Orhan Sezgin**

*Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Caustic substance drinking is a serious problem due to high morbidity and mortality. The severity of lesions produced by caustic substances in the tissue depends on the type, amount and concentration of the caustic substance taken, as well as the time of contact with the mucosa. In this article, we aimed to evaluate the demographic characteristics, endoscopic results, clinical findings and complications of the patients who were admitted to our university hospital due to the ingestion of corrosive substances.

***Materials and Methods:*** We evaluated the endoscopy findings of endoscopy and endoscopy findings of 75 adult patients with acute corrosive agents within 24 hours of ingestion.

***Results:*** 43 (57.3%) of the patients were female and 32 (42.6%) were male. The mean age of the males was 39.3±14.50 and the mean age of females was 34.1±16.91 years. In 16 of them (21.3%), the intake of corrosive substances was suicidal and in

fifty-nine (78.6%) of the patients he was accidentally received. 37 (49.3%) patients were asymptomatic and did not require endoscopy. Although endoscopy was recommended in 7 (9.3%) patients, patients did not accept endoscopy. In 15 (20%) patients, the endoscopy was normal, in 9 (12%) patients Esophagitis LA Grade A, in 5 (6.6%) patients Esophagitis LA Grade B, 1 (1.3%) patients had been drinking crystal sink openers and Esophagitis LA Grade D 1 patient (1.3%) had a thinner and was reported as esophageal polyp and Schatzki ring. Looking at the items taken; Thirty (33.3%) patients had bleach. There was no mortality due to corrosive substance.

***Conclusion:*** Caustic substance drinking is often mistaken, with mild symptoms or esophageal damage. Endoscopy may not be performed, especially in asymptomatic individuals who smoke or bleach. In suicidal intention, patients can be seriously injured because they drink too much, and endoscopy is indicated for suicidal purposes. Endoscopy should only be used to evaluate the esophageal and gastric injury and to determine prognosis. A careful psychiatric evaluation should be performed for suicidal purposes.

***Keywords:*** Caustic intoxication, corrosive material intake, esophagitis

---

***PP-268***

## *271 Examination of splenectomy patient, can the gaucher disease be the cause of splenomegaly in patients with splenectomy?*

**Mustafa Zanyar Akkuzu[1], Serkan Yaraş[1], Osman Özdoğan[1], Enver Üçbilek[1], Fehmi Ateş[1], Engin Altintaş[1], Mustafa Berkeşoğlu[2], Orhan Sezgin[1]**

*[1]Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*
*[2]Department of General Surgery, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Gaucher disease is a lipid storage disease that can cause hepatosplenomegaly. Patients who cannot be diagnosed on time can cause severe splenomegaly and patients who are not diagnosed can undergo unnecessary splenectomy. For this purpose, we investigated the patients who were diagnosed with Gauchers disease after splenectomy.

***Materials and Methods:*** Clinicopathological and demographic data of 271 patients with splenectomy who underwent splenectomy between 2010-2019 were retrospectively analyzed.

***Results:*** The three most common reasons for splenectomy were; trauma (26.5%) was due to the operation of solid organ tumors (22.88%) and immune thrombocytopenic purpura (12.18%).

***Conclusion:*** None of the patients were given splenectomy due to Gaucher disease and none of them had Gauchers disease. None of the 271 patients who underwent splenectomy had no evidence of Gauchers disease. Although splenectomy, hematological and mechanical problems are present in Gauchers disease, selective enzyme replacement therapy is the preferred treatment modality.

***Keywords:*** Gaucher disease, enzyme replacement therapy, splenectomy

---

***PP-269***

## *Foreign bodies on the path of nutrition; retrospective evaluation of our clinical experience*

**Mustafa Zanyar Akkuzu, Osman Özdoğan, Serkan Yaraş, Enver Üçbilek, Fehmi Ateş, Engin Altintaş, Orhan Sezgin**

*Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Swallowing foreign bodies is a common clinical problem. Especially sharp and pointed objects can cause life-threatening complications such as obstruction, GI bleeding or intestinal perforation. In this article, we aimed to report our experience and results related to the patients who underwent endoscopy in our clinic because of foreign body ingestion.

***Materials and Methods:*** In our hospital, we detected adult patients who had undergone endoscopy with an initial diagnosis of foreign body in the feeding pathways by scanning the hospital data recording system. Demographic data, anamnesis information, radiographs and endoscopy findings were evaluated.

***Results:*** A total of 52 patients were detected. Thirty-four (65.3%) men were male and the mean age was 45.3±17.81 years. Eight (34.6%) women were female and the mean age was 47.7±4.18 years. Nineteen (36.5%) of the detected foreign bodies were bony meat and fish bones, 12 (23.0%) were bones and solid food. Fishbone, chicken bone and dental prostheses were the most common foreign bodies, especially in the elderly. When we look at the regions where foreign bodies are seen; 34.6% were detected in the esophagus and 72% of them were in the upper esophagus. 19.2% of them were in the stomach and 3.8% of them were in the duodenum and were removed by endoscopy. Upper gis endoscopy was normal in 42.3% of patients and it was followed up.

***Conclusion:*** In our series, the most common fish bones, bony and boneless meat, bezoiled solid food, prosthetic teeth, toothpicks and nails were found. Foreign body was found most frequently in the first stenosis of the esophagus. None of them required surgical treatment, either endoscopically or spontaneously. There was no mortality or morbidity in any of our patients.

***Keywords:*** Gastrointestinal tract, foreign body, endoscopy

---

***PP-270***

## *Efficacy of self-expandable metal STENTS (SEMS) in overpassing malignant bilioduodenal obstruction*

**Dimitrios Paikos[1], Ioannis Moschos[2], Miltiadis Giannarakis[1], Christina Barmpagianni[1], Athanasios Paikos[1], Alexandra Gantzarou[1], Antonios Mpakas[1]**

*[1]G. Genimatas General Hospital, Thessaloniki, Greece*
*[2]424 Military Hospital of Thessaloniki, Thessaloniki, Greece*

***Background/Aims:*** Endoscopic stenting using self-expandable metal stents (SEMS) is a commonly used and minimally invasive palliative treatment in cases of bilioduodenal obstruction. This study aims to evaluate the efficacy of SEMS in restoring biliary and gastrointestinal flow in patients presenting with malignant obsruction.

***Materials and Methods:*** Patients who underwent double stenting (DS) from January 2013 to February 2018 were analyzed retrospectively with regard to their demographic characteristics, the site and nature of the strictures, success rates, complications and survival time.

***Results:*** A total of 32 patients were enrolled. In 22 patients, biliary obstruction occurred before the onset of duodenal obstruction (in average 110 days) (group 1). In 8 patients biliary obstruction occurred concurrently with duodenal obstruction (group 2). In 2 patients duodenal obstruction preceded the biliary obstruction (in average 130 days) (group 3). The duodenal strictures were proximal to the papilla in 16 patients, adjacent to the papilla in 12 patients and distal to the papilla in 4 patients. The majority of biliary strictures were in the distal third of the bile duct (28/32 patients). Duodenal SEMS were successfully deployed in all patients. Combined endoscopic stenting was successful in 99% of patients in group 1, 83% of patients in group 2 and 100% of patients in group 3. Early complications occurred in 5%, while 15% had late complications. The overall average survival after combined stenting was 115 days (range 7–425 days).

***Conclusion:***1) Biliary stenting through the mesh of the duodenal SEMS is technically feasible and has a high success rate. 2) Double stenting is safe and effective for malignant bilioduodenal obstruction. The majority of patients needed no additional intervention during their palliation period.

**Keywords:** Self-expandable metal stents, bilioduodenal obstruction, palliative treatment

***PP-271***

## *Examining quality of life and healthy lifestyle behaviour before and after bariatric surgery*

**Duygu Ateş[1], Hatice Yorulmaz[1], Elif Yorulmaz[2]**

*[1]Haliç University School of Nursing, İstanbul, Turkey*
*[2]Department of Gastroenterology, Bağcılar Training and Research Hospital, İstanbul, Turkey*

***Background/Aims:*** The purpose of this study is to examine the effect of healthy lifestyle behaviour and quality of life scale of the people undergoing bariatric surgery and their personal and disease-related characteristics before and after bariatric surgery.

***Materials and Methods:*** The study was conducted in Istanbul with 33 patients who underwent bariatric surgery in according with the type of descriptive cross-sectional study. The data were collected by applying Introductory Information Form, Healthy Lifestyle Behaviour Scale, and Quality of Life Scale. Descriptive statistical methods, paired-samples t test and pearson's correlation analysis were used to analyse the data.

***Results:*** It was observed that 39.3% of the patients were in the age range of 19-30 years, 75.8% were female, 57.5% had a graduate and postgraduate degree, and 66.7% were employed. After the operation, it was seen that quality of life scale as well as physical and mental component score and total score of healthy lifestyle behaviour significantly increased than the scores before operation. A positive moderate significant statistical correlation was found between healthy lifestyle behaviour and quality of life scale. In addition, decreasing of body mass index, disease symptoms and sexual problems of the patients was observed after operation. Also, it was observed that the patients had no need of psychological help and they reduced smoking after the operation.

***Conclusion:*** It may be suggested to point out controlling body weight and improving healthy lifestyle behaviour training to the patients after the operation.

***Keywords:*** Bariatric surgery, healthy lifestyle behaviour, quality of life

***PP-272***

## *Extract of vaccinium has potential prebiotic effect for individualized application with specifically selected strains of lacto- and bifidobacteria for mets according to ultrasound biomarkers: Study protocol*

**Maryna Kryvtsova, Rostyslav Bubnov, Mykola Spivak**

*Zabolotny Institute of Microbiology and Virology, National Academy of Sciences of Ukraine, Kiev, Ukraine*

***Background/Aims:*** *Vaccinium* is well-known prebiotic substance. Modulating gut microbiome can improve metabolic health with special effects at individualized use according to developed panel of biomarkers based on ultrasound imaging [Bubnov, Spivak]. The aim; was to establish protocol to study the effects of Vaccinium extract alone and with specifically selected probiotic strains on MetS via individualized application according to ultrasound biomarkers.

***Materials and Methods:*** Study protocol; We will include 40 consecutive obese patients (20-80 years, M=F), BMI>30, waist circumference (WC)>110, with markers of metabolic syndrome and will be tassign them to groups as follows: 1) 10 patients

were given probiotics at a dose $10^8$ CFU daily during 10 days; 2) 10 patients received Extract of Vaccinium (according to recommendations) during 30 days; 3) 10 patients received Extract of *Vaccinium*+ specifically selected probiotic strains of Lacto- and Bifidobacteria. 4) 10 patients will as controls. Patients examination; all enrolled patients will be evaluated based on broad panel of biomarkers according to [Bubnov, Spivak] before/after administration supplements and 1 month after therapy; will undergo general clinical, lab tests; extensive multiparameter ultrasound (US) of liver, measuring shear wave elastography (SWE), visceral fat (FV), dynamic US of postural stability (abdominal wall, diaphragm, pelvic floor motion).

***Results:*** Expected outcome; weight, BMI, visceral obesity should have decreased after pro- and probiotic administration. Parameters of MetS should have improved. Combine use of *Vaccinium* with specifically selected strains of Lacto- and Bifidobacteria for individualized application should enhance beneficial clinial effect. Additional beneficial unexpected effects may be registered.

***Conclusion:*** According to up to date scientific knowledge *Vaccinium* has potential prebiotic beneficial effect on MetS; individualized application according to host's phenotype according to ultrasound biomarkers alone and with specifically selected strains of Lacto- and Bifidobacteria for individualized application can largely enhance the expected effect.

***Keywords:*** *Vaccinium*, obesity, prebiotic, probiotic

---

***PP-273***

## *Association of PNPLA3 RS738409 and TM6SF2 RS58542926 with nonalcoholic fatty liver disease (NAFLD)*

**Saeideh Maleki[1], Seyed Moayed Alavian[2], Maryam Eslami[1], Heidar Sharafi[3], Kamran Bagheri Lankarani[4], Behnam Honarvar[4]**

*[1]Islamic Azad University, Tehran Medical Branch, Tehran, Iran*
*[2]Baqiyatallah University of Medical Sciences, Tehran, Iran*
*[3]Middle East Liver Diseases Center, Tehran, Iran*
*[4]Health Policy Research Centre, Shiraz University of Medical Sciences, Shiraz, Iran*

***Background/Aims:*** Nonalcoholic fatty liver disease (NAFLD) is a burgeoning health problem worldwide. The etiology of NAFLD has still remained unclear and varies in prevalence among ethnic groups. Genetic factors increase susceptibility to disease. The PNPLA3 I148M and TM6SF2 E167K variants represent genetic risk factor for hepatic steatosis. This study aimed to investigate the association of variants PNPLA3 rs738409 and TM6SF2 rs58542926 with NAFLD among Iranian population.

***Materials and Methods:*** A population-based study performed in Shiraz for epidemiology and etiology of NAFLD. The samples selected for a case-control study. All individuals undergone clinical and laboratory assessment and also diagnosed by ultrasonography. A total of 108 healthy control and 108 with moderate and severe steatosis recruited in a sex-age-ethnicity match case control study. Genotyping for PNPLA3 rs738409 and TM6SF2 rs58542926 was carried out by PCR-RFLP method.

***Results:*** The case and control groups are consisted of 56.5% male with mean age around 48 years. The distribution of PNPLA3 rs738409 CC and CG+GG in case group were 60.2% and 39.8% while the distribution of CC and CG+GG in control group were 47.2% and 52.8%, respectively (p=0.076, OR=0.59). The distribution of TM6SF2 rs58542926 CC and CT in case group were 89.8% and 10.2% while the distribution of CC and CT in control group were 92.6% and 7.4%, respectively (p=0.632, OR=1.41). In multivariate analysis, the BMI>25 and diabetes found to be associated with NAFLD.

***Conclusion:*** In this population-based case-control study, the genetic variants of PNPLA3 and TM6SF2 were not found to be associated with NAFLD in Iranian population.

***Keywords:*** Non-alcoholic fatty liver disease, polymorphism, genetics, PNPLA3, TM6SF2

***PP-275***

## *Detection of gastric preneoplastic lesions according to the olga-olgim systems in the province of Ocaña: Colombia*

**Henry Royero**

*Endoscopy Unit, Ocaña*

***Background/Aims:*** Gastric cancer of the intestinal type can be preceded by atrophy and intestinal metaplasia in the stomach. The follow-up of these findings through OLGA systems (Operative link on Gastritis Assessment) and OLGIM (Operative link on Metaplasia Assessment), can simplify its clinical approach and estimate the surveillance intervals / to determine the prevalence of high-risk lesions for gastric cancer using the OLGA-OLGIM systems simultaneously in the province of Ocaña.

***Materials and Methods:*** Retrospective descriptive study, carried out in a reference center in Ocaña, Colombia between January 2011 and April 2019. We included 1380 consecutive patients who had an esophagogastroduodenoscopy indicated, we obtained the information from the endoscopic and histological reports, the inclusion criteria were individuals equal to or older than 18 years, patients with previous gastric surgeries, upper gastrointestinal bleeding, advanced gastric neoplasia and incomplete reports were excluded. Gastric biopsies were taken and analyzed according to the recommendations of the Sydney protocol; Helicobacter Pylori (Hp) positive was considered if it was observed in some of the histological samples. The findings were tabulated in Excel 2007 and the frequencies were analyzed in EPI-INFO, a $p<0.05$ was considered significant.

***Results:*** The female man ratio was 1: 0.67, the average age was 50.65% +/- 15.9 (range 18-91 years), the classification of the stadiums by Olga-Olgim was: Stage 0 (1014/1055 ); Stage I (249/216); Stage II (86/81); Stage III (26/23); Stage IV (5/5), the concordance between the two systems was 96.5% (Table 1). The OLGA and OLGIM system found similar findings in high risk patients (III and IV) 2.24% vs 2.03% respectively, of these 93% of the patients with OLGA and 92% with OLGIM, were found in patients older than 45 years ($p<0.000$), the Hp was diagnosed in 48% of the subjects, being less frequent in stages III and IV ($p=0.004$ and $P=0.039$) respectively.

***Conclusion:*** Our population has a low prevalence of high-risk lesions (III-IV), presenting mainly in people older than 45 years, only in this group endoscopic surveillance would be recommended. No differences were found in the use of the OLGA-OLGIM system in the stratification of gastritis.

***Keywords:*** Chronic gastritis, (OLGA) operative link on gastritis assessment, (OLGIM) operative link on metaplasia assessment

***Table 1.*** Concordance of the Olga-Olgim systems in the detection of high-risk patients

| | Olga 0 | Olga I | Olga II | Olga III | Olga IV | Total |
|---|---|---|---|---|---|---|
| Olgim 0 | 1013 | 41 | 1 | 0 | 0 | 1055 (76.45%) |
| Olgim I | 1 | 207 | 6 | 2 | 0 | 216 (15.65%) |
| Olgim II | 0 | 1 | 79 | 1 | 0 | 81 (5.87% ) |
| Olgim III | 0 | 0 | 0 | 23 | 0 | 23 (1.67%) |
| Olgim IV | 0 | 0 | 0 | 0 | 5 | 5 (0.36%) |
| Total | 1014 (73.48%) | 249 (18.04%) | 86 (6.23%) | 26 (1.88%) | 5 (0.36%) | 1380 (100%) |

***PP-276***

## *Ginsenoside RG1 enhances the paracrine effects of BM-MSCS on radiation induced intestinal injury*

**Yujun Luo, Hao Chen, Weihong Sha**

*Department of Gastroenterology, Guangdong General Hospital and Guangdong Academy of Medical Sciences, Guangdong, China*

***Background/Aims:*** Options for treating Radiation induced intestinal injury (RIII) are limited. Bone marrow-derived mesenchymal stem cells (BM-MSCs) has distinguished itself in treating numerous diseases, but was hampered by its low level of secretory factors such as VEGF. Some studies have demonstrated that RG-1, a vital ingredient in ginseng, possess abilities of tissue repairing potentially by increasing the concentrations of secretory factors. Thus, we applied RG-1 to pre-activate BM-MSC, and shed light on whether the therapeutic effect could be enhanced and the possible mechanism.

***Materials and Methods:*** Conditioned medium (CM) were collected from normal BM-MSC (MSC-CM) or Rg1-pre-activated BM-MSC(Rg1-MSC-CM) using trans-well system and were analysed by ELISA. Rats were subjected to RIII undergoing radiation of 14Gy/rat, and randomly received intraperitoneal injection of DMEM-F12 or MSC-CM, RG1-MSC-CM with or without treatment with neutralizing antibodies for three days, and sacrificed at 1,3,7 days. Intestinal samples were collected and analysed by western blot, HE, Immunohistology, Tunel, PCNA.

***Results:*** MSC-CM activated by rg-1 rather than non-activated MSC-CM significantly improved RIII rat survival, histological and functional change. Additionally, Rg1-MSC-CM remarkably increased intestinal epithelial/stem cells regeneration, decreased cellular apoptosis, downregulated local proinflammatory response. Neutralization of VEGF and IL-6 within Rg1-MSC-CM abolished the mitigating effect on intestine, while adding VEGF and IL-6 within MSC-CM regain the therapeutic effect almost similar to RG1-MSC-CM. Finally, Rg-1 promoted the phosphorylation of AKT and IKK, enhanced the nuclear translocation of NF-kB in MSC. Chromatin immunoprecipitation (ChIP) assay revealed three NF-κB-binding sites in IL-6 promoter and five NF-κB-binding sites in VEGF promoter.

***Conclusion:*** Taken together, our study demonstrated that MSC-CM activated by RG-1 strengthens its paracrine effect and exerts its therapeutic effect on RIII mainly through modulating PI3K-AKT/NF-kB pathway. These findings could provide a useful therapeutic strategy for radiation-induced intestinal injury.

***Keywords:*** Mesenchymal stromal cell, conditioned medium, radiation-induced intestinal injury

---

***PP-277***

## *A case of Zollinger-Ellison syndrome presenting as chronic diarrhea without symptoms of peptic ulcer disease on a 42-year-old Filipino-man: A case report*

**Arnold Vitug[1], Marianne Linley Sy-janairo[2], Gwen Marcellana[2]**

*[1]Institute of Digestive and Liver Diseases St. Luke's Global City Medical Center, Quezon City, Philippines*
*[2]St. Luke's Global City Medical Center, Quezon City, Philippines*

Zollinger-Ellison Syndrome (ZES) is a rare clinical syndrome that is characterized by abnormally increased gastric acid production secondary to hypersecretion of gastrin from a gastrinoma. Although the pancreas is one of the most common location for gastrinomas, only 30% of cases arise in this area. A case of a 42-year-old, Filipino, male, with history of nephrolithiasis, presents as chronic diarrhea and bloatedness since 2013. He was treated for *Helicobacter pylori* infection for 2 weeks resulting in partial improvement of symptoms. In 2017, repeat upper endoscopy showed esophagitis, gastritis with

gastric fold hyperplasia, and duodenitis with duodenal tumor. An upper gastrointestinal endoscopic ultrasound showed a mixed duodenal submucosal lesion in which biopsy showed Brunner's gland hyperplasia. His colonoscopy only revealed internal hemorrhoids. Gastrin level was elevated at 427 pg/mL but the computerized tomography of the abdomen only showed mild hepatic steatosis. Repeat upper endoscopy a year after showed gastritis, esophagitis and duodenal ulcers. Gastrin level was again elevated at 336 pg/mL. With a suspicion for gastrinoma, a DOTATE PET scan was requested which revealed multiple somatostatin receptor positive foci in the pancreatic head, body, and tail compatible with gastrinoma. He was then advised to continue potassium competitive acid blocker (PCAB), sucralfate and rebamipide. Work-up for MEN1 was done due to history of nephrolithiasis which was negative. This case showed that chronic diarrhea with endoscopic findings associated with increased gastric acid production warrants suspicion for ZES. Diagnostic evaluation includes determination of gastrin level, endoscopy, and specific imaging modalities such as DOTATE PET scan. Current medical management include proton pump inhibitors to control effects of gastric acid hypersecretion but surgery is recommended for patients with sporadic gastrinoma.

***Keywords:*** Zollinger-Ellison syndrome, gastrinoma, chronic diarrhea

---

***PP-278***

## *Colorectal cancer surgical management and complications*

**Sandra Milena Rojas Molina, Luis Gerardo Vargas, Rafael Hernando Pino, Juan Felipe Sanjuan**

*Universidad Surcolombiana*

***Background/Aims:*** Colorectal cancer (CCR) is the third most common cancer and the cause of cancer death in both men and women in the United States. Surgery covers the primary form of treatment for colon cancer, while chemotherapy is most commonly used in the adjuvant setting. The 5-year overall survival for patients with localized, regional and metastatic colon cancer is 91%, 72% and 13%. The neutrophil/lymphocyte index (NLR), is an effective marker of inflammation that is found increasingly to evaluate the results in surgical patients.

***Materials and Methods:*** Retrospective, observational study, series of cases including all patients with colorectal cancer admitted during the period between January 2013 and December 2018 who underwent a surgical oncological procedure.

***Results:*** We included 65 patients, of whom 63.1% corresponded to women, with a mean age of 58 years, a minimum of 22 years, a maximum of 88 years, with an average muscle mass index of 23.18, average hemoglobin of 10.7 (minimum 4.3, maximum 16.6), mean neutrophil-lymphocyte index of 6.5 (minimum 0.9, maximum 34), 76% have an ASA 2 at the time of Surgical procedure, 81.5% of the procedures were performed openly, 35.4% underwent anterior resection of the open via rectum (4.6% by laparoscopy), 29.2% through open right hemicolectomy (6,2% by laparoscopy), 10.8% open via sigmoidectomy (6.2% by laparoscopy), 3.1% exploratory laparotomy, intraoperative complications occurred in 6%, postoperative complications in 27% (10.8% peritonitis, 9.2% intestinal obstruction, 6.2% intra-abdominal collection, 1.5% evisceration) which required surgical reoperation, 47.7% received chemotherapy, 1 6.9% received radiotherapy, 36.9% presented with tumor relapse, during the evaluated period 12.3% of the patients studied died.

***Conclusion:*** Colorectal cancer continues to have a high incidence of new cases, a low body mass index associated with hypoalbuminemia may be related to intra and postoperative complications as well as the need for reoperations surgical procedures that can increase morbidity and mortality in this group of patients. Several studies have studied the relationship of the neutrophil-lymphocyte index as an inflammatory marker but in our surgical group we did not find a statistically significant relationship.

***Keywords:*** Colorectal cancer, complications

***PP-279***

## *Prognostic value of platelet-to-lymphocyte ratio in colorectal cancer*

**Myriam Ayari, Hela Kchir, Dhouha Cherif, Hejer Ben Jeddi, Nadia Maamouri**

*Gastroenterology Department B, La Rabta Hospital, Tunis.*

***Background/Aims:*** Evidence shows that physiopathology of colorectal cancer (CRC) implicates pro-inflammatory conditions to promote the tumor malignant progression, invasion, and metastasis. Inflammatory markers such as platelet-to-lymphocyte ratio (PLR) might predict outcomes in CRC. However the value of PLR in assessing the prognosis of CRC remains unclear. The aim of this study was to investigate the prognostic value of PLR in CRC.

***Materials and Methods:*** We conducted a retrospective study including 90 patients diagnosed with colorectal cancer over 3 year period. PLR was calculated by the division of the platelet count to the lymphocyte count from pre-treatment hemogram test for each patient. The relationship between PLR, and baseline characteristics, laboratory parameters, staging according to the American Joint Committee on Cancer and tumor size was analysed.

***Results:*** Overall, 90 patients were included with mean age of 61 years (31-84 years). There was a male predominance with a sex-ratio M/F=1.3. Histopathogical data found liberkhünen adenocarcinoma in the majority of cases. Tumor classification was: Stage I (18%), stage II (30%), stage III (24%), stage IV (27%). We found that PLRs was significantly higher in patients with stage III and stage IV tumors than in patients with stage I and stage II (mean: 242 vs. 137, respectively, p=0.003). Moreover high PLR was associated with the presence of metastasis (p=0,006), low hemoglobin level (p<0.001) and low albumin level (p=0.007). In our study PLR was not significantly associated with gender, age nor tumor size.

***Conclusion:*** PLR is an inexpensive, simple and easy parameter which can be readily performed for all patients. It is found to be a prognostic factor predicting tumor staging, thus a valuable tool for assessment of the prognosis of colorectal cancer.

***Keywords:*** Colorectal cancer, platelet-to-lymphocyte ratio, prognostic marker

---

***PP-280***

## *How effective are treatments in prevention of hypercoagulability and thromboembolic events in ulcerative colitis patients?*

**Kerem Kenarlı, Ekin Yiğit Köroğlu, Hülya Çetinkaya, Zeynep Melekoğlu Eşlik, Serkan Duman, Arif İrfan Soykan, Murat Törüner**

*Ankara University, Ankara, Turkey*

***Background/Aims:*** Thromboembolic complications are an important cause of morbidity and mortality in Ulserative Colitis (UC) diseases. The aim of the study is to examine the frequency of thromboembolic events and coagulation parameters during treatment in patients with UC and compare differences between patients with UC and healthy volunteers (HV).

***Materials and Methods:*** The data of the patients with UC was retrospectively analyzed in our center from March 2009 to December 2018. ESR, CRP, MPV, aPTT, INR, endoscopic score, previous thromboembolic events and treatments of all patients with UC were studied and compared with HV.

***Results:*** The data of 100 patients with UC (56 male, 44 female) and 60 HV (26 male, 34 female) were examined. All patients with UC (%100) use mesalazine; 18 of them also use AZT and 9 of them also use anti-TNF agents. Thromboembolic events were seen in%3(n=3) of patients with UC and %3.3(n=2) in HV(p=1.000). Median (min.-max.) thrombocyte counts were 303.0(98.0-446.0) in UC group and 280.5(180.0-561.0) in HV group (p=0.096). Median (min.-max.) value of INR was founded 1.0(0.9-8.3) in UC group and 1.0(0.9-1.2) in HV group (p=0.03). When we compared the endoscopically inactive (Mayo Score:0-1) 24 patients and endoscopically active (Mayo score:2-3) 76 patients on same parameters it's seen that; no

significant difference with MPV, PLT, aPTT, INR and thromboembolic events frequency (p>0.05). Patients who gets combination therapy of azathioprine or anti-TNF, thromboembolic events ratio was %4.3 and %2.7) on the patients who gets monotherapy mesalazine (p>0.05). In additional these groups compared with the HV groups; no significant difference with thromboembolic events frequency (p>0.05).

***Conclusion:*** The incidence and risk of thromboembolic events (independently of the endoscopic activity of the disease) in treated patients with UC did not increase significantly when compared with healthy volunteers. When there was a separate risk assessment for the which treatments used, it was found that there was no difference between patients who used mesalazine monotherapy and those who received combination therapy of azathioprine or anti-TNF in addition to mesalazine. These results suggest that mesalazine treatment in patients with UC has a key role in preventing thromboembolic event complication.

***Keywords:*** Thromboembolic events, ulserative colitis, coagulation parameters

---

***PP-281***

## *Patient response of direct acting antivirals vs traditional interferon therapy*

**Dexton Johns**

*Clinical Research Texila*

***Background/Aims:*** The treatment goal of Chronic hepatitis C virus (HCV) infection is sustained virological response (SVR) which indicates HCV eradication. Traditionally pegylated-interferon-alpha (PEG-IFN) in combination with ribavirin was used but lately direct-acting antivirals (DAAs) which are specifically designed to target various stages of HCV life cycle.

***Materials and Methods:*** To assess the physical and mental health related quality of life (HRQoL) before during and after treatment using EQ-5D-5L instrument. 60 patients were included in our study.15 patients received direct acting antiviral agent (DAAs) plus pegylated alpha interferon (Peg-α-IFN) and the remaining 45 IFN free regimen. The EQ-5D-5L questionnaire and visual analog scale (VAS) were given to calculate coefficient's utility. Utility EQ index was calculated and statistical analysis were performed.

***Results:*** The VAS score was negative in the IFN group indicating a poorer quality of life. The baseline EQ index were comparable however the post treatment EQ index was statistically better in group that received IFN –free therapy. Interferon and ribavarin treatment showed more adverse effect compared to DAAs. HRQOL had a statistically significant correlation with age, sex, educational level, living type, employment status, monthly income level, and comorbidity status. Sofosbuvir and velpatasvir showed better tolerability among the DAAs.

***Conclusion:*** DAAs are better tolerated by the patients and has a significant improvement in the quality of life. Education, compassion and health care needs to be tailored to improve the overall well being of patients with HCV.

***Keywords:*** HCV, direct acting antivirals

---

***PP-282***

## *Psoas muscle index: An outcome predictor in living donor liver transplantation*

**Hakan Korkut Atalan[1], Şule Namli Koç[2], Mustafa Emre Kavlak[1], Ahmet Kargi[3], Serdar Aslan[3], Serafettin Yazar[3], Kamil Yalçın Polat[3]**

*[1]Department of Intensive Care Unit, Ataşehir Memorial Hospital, İstanbul*
*[2]Department of Gastroenterology, Ataşehir Memorial Hospital, İstanbul*
*[3]Department of Transplantation, Ataşehir Memorial Hospital, İstanbul*

***Background/Aims:*** Our hypothesis is that psoas muscle index (PMI) is related with outcomes in living donor liver transplantation (LDLT) patients. LT patients usually have low physiologic reserves prior to end-stage liver disease or primary hepatic malignancy. In most LT centers, the MELD score is used for the prioritization of organ allocation. However, MELD score does not include the nutritional and functional status of the patients. Sarcopenia is defined as a loss of skeletal muscle mass and function with a risk of adverse outcomes and it was found to be associated with elevated postoperative complications in LT patients. PMI is calculated with psoas muscle area/height$^2$ ($mm^2/m^2$) and used to detect sarcopenia. Hence, it may be an outcome predictor in LDLT patients.

***Materials and Methods:*** In this study, 261 patients who underwent LDLT between 2011 and 2014 were retrospectively evaluated. Patients who were <18 years old, cadaveric liver transplant recipients and whose CT scans were missing were excluded. Demographic data, body mass index (BMI), PMI, MELD score, etiology, length of ICUstay, length of hospital stay, postoperative 7$^{th}$ day acute kidney injury (AKI), requirement of renal replacement therapy (RRT), reoperation, readmission and 1$^{st}$ year mortality were recorded.

***Results:*** The first quartile of PMI for male and female patients were 397 $mm^2/m^2$ and 298 $mm^2/m^2$ respectively. In all patients, postoperative 7$^{th}$ day AKI, RRT requirement and 1$^{st}$ year mortality were 12.3%, 8.2% and 10.5%. There was no any correlation among PMI, BMI and MELD score. PMI was positively correlated with increase in postoperative 7th day creatinine level and length of hospital stay (r2=0.02 p=0.049 and r2=0.06 p<0.001). In 56 patients with sarcopenia, RRT requirement, reoperation, readmission and 1st year mortality were significantly higher than non-sarcopenia patients (p=0.001, p=0.003 and p<0.001 for others). In multivariate analysis, the 1$^{st}$ year mortality was increased 29.5-fold (8.3-104.4) by sarcopenia (p<0.001).

***Conclusion:*** BMI, MELD score or conventional evaluation of LT candidate may in many cases fail to predict prognosis after LT. Adding the PMI measurement may improve the evaluation of the patients prior to LT and can be used as an outcome predictor in LDLT patients.

***Keywords:*** Psoas muscle index, liver transplantation,outcome predictor

---

***PP-283***

## *An unusual cause of massive upper gi bleeding*

**Benoy Sebastian[1], Cyril Alex[1], Mary George[1], Sajith Sebastian[1], Jenny Susan[2], Sunil K Mathai[1]**

[1]*Medical Trust Hospital, Kerala, India*
[2]*A J Hospital, Manglore,* Karnataka, *India*

***Background/Aims:*** Accidental ingeson of foreign bodies and bleeding following it from the upper digesve tract are commonly encountered by. Although rare vascular anomaly and a missed foreign body can lead to life threatening events if not recognized and managed early.

***Materials and Methods:*** Case presentaon a 42 year old diabec lady on oral an diabecs presented to our emergency department with history of massive hemetemesis. She under went an endoscopy two days back as OPD for Dyspepsia and GERD symptoms, which showed a small superficial ulcer without any sgma,2 cm hiatus hernia and LA GRADE A GERD. She failed to reveal a history of trauma or pain aer taking food even aer repeated quesoning. She presented in the late midnight with massive hemetemesis. Emergency endoscopy showed a 1 cm post cricoid ulcer with opposite wall showing a penetrang hole draining pus. Her CECT Thorax with angiography was done in view of high suspicion of a migrang foreign body and invaginaon of the foreign body into the aorta. Interesngly it revealed an anomalous vertebral artery is originang directly from the arch of aorta with significant luminal narrowing (>25%) with intraluminal filling defect at the C6-C7 level extending to C4 level. Which was in close approximaon with upper esophagus, making it a rather very unusual site for foreign body impacon (Grade 2 vertebral artery injury with Para Pharyngeal abscess). The damaged anomalous le vertebral artery was sacrificed. She underwent coil embolisaon of the vessel aer ensuring that the right verterbral artery was patent and was well perfusing the vertebrobasilar system.

***Results:*** Extensive literature review could not find any similar cases.

***Conclusion:*** It is the first reporting case of a foerign body (Fish Bone) impaction presenting with massive UGI Bleeding from the vertebral artery tear.

***Keywords:*** Upper GI bleeding, fish bone, vertibral artery

---

***PP-284***

## *Clinical profile of cirrhotic portal vein thrombosis- a single center experience*

**Sunil K Mathai[1], Benoy Sebastian[1], Sajith Sebastian[1], Jenny Susan[2]**

*[1]Medical Trust Hospital, Kerala, India*
*[2]A J Hospital, Manglore, Karnataka, India*

***Background/Aims:*** The study is was done to idenfy the clinical profile of newly detected portal vein thrombosis in Cirrhotic Patientsin a sub group of south Indian population.

***Materials and Methods:*** Hospitalized cirrhotic patients were segregated into the PVT and non-PVT groups. Various clinical factors and laboratory parameters are noted. portal vein diameter and flow velocity and splenic diameter were measured by ultrasonography.

***Results:*** Out of 178 paents included in our study, 56(8%) had portal vein thrombosis of which 44 paents were males and 12 were females. Mean age of presentaon is.55±12 years. Most common presentaon were gastrointesnal bleeding, abdominal pain, abdominal distenon, fever, jaundice, and hepac Encephalopathy. Most common site of portal vein thrombosis was PV trunk followed by branches. Ascites was most commonly observed in paents with isolated PV trunk thrombosis. However, gastrointesnal bleeding and fever were most common among PVT paents with superior mesenteric vein /Splenic vein thrombosis. Non Alcoholic Steatohepas related cirrhosis followed by alcohol was observed to be the major cause of cirrhosis in portal vein thrombosis. Some of the previously hypothesized risk factors for portal vein thrombosis, such as advanced age, male gender, smoking status, alcohol consumpon, systemic hypertension, and diabetes mellitus however were not associated with portal vein thrombosis in our study. Splenic diameter was more associated with occurrence of portal vein thrombosis.

***Conclusion:*** Incidence of PVt was in 8% cirrhotics, predominantly males at age 55±12 years. Some of the previously hypothesized risk factors for portal vein thrombosis, such as advanced age, male gender, smoking status, alcohol consumpon, systemic hypertension, and diabetes mellitus however were not associated with portal vein thrombosis in our study. Splenic diameter was more associated with occurrence of portal vein thrombosis.

***Keywords:*** Cirrhosis, ascitis, portal vein thrombosis

---

***PP-285***

## *The spectrum of pathological changes in patients with crohns disease under long-term mesalamine treatment*

**Dilara Akbulut[1], Aysun Çalışkan[2], Ece Bilgiç[3], Zeynep Ellik[2], Hülya Çetinkaya[2], Arzu Ensari[1]**

*[1]Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Division of Gastroenterology and Hepatology, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Crohns disease (CD) can affect any part of the gastrointestinal tract. Nearly 50% of patients have involvement of terminal ileum (TI) and colon, while 30% have only small-bowel involvement, and 20% present with isolated colonic CD. The purpose of the study was to evaluate the effects of mesalamine treatment on the pathology and involvement pattern in patients with CD.

***Materials and Methods:*** We reviewed initial and follow-up biopsies from TI and five colonic segments in 101 patients with CD. Clinical data were recorded at the time of both initial and follow-up biopsies performed after treatment. Involvement patterns and histopathological changes were evaluated in initial and follow-up biopsies of patients receiving mesalamine and compared with the effects of other treatment modalities.

***Results:*** Of the 101 patients evaluated, 59.9% were female and the median age was 38.5 years. Fifty-two percent of the patients received treatment with mesalamine. The majority of initial biopsies (85%) were abnormal with terminal ileum involvement while on follow-up biopsies terminal ileum involvement was found in 73.8% (p=0.07) in the mesalamine group. Active ileitis with or without ulceration was the predominant pattern in 68% of the initial biopsies compared to 49% found in follow-up biopsies after treatment (p=0.085). Right colon involvement didn't show significant difference between initial and follow-up biopsies (37.5% vs. 37.7%, p=0.98). No significant difference was observed between initial and follow-up biopsies in the group receiving other treatment modalities.

***Conclusion:*** Our results indicate that mesalamine treatment improves the inflammatory process considerably in the terminal ileum mucosa in CD.

***Keywords:*** Crohns disease, mesalamine, follow-up, histopathological

---

***PP-286***

## *Acute liver failure revealing chronic drug induced liver injury due to methyldopa: A case report*

**Myriam Ayari, Yosra Zaiimi, Emna Bel Hadj Mabrouk, Shema Ayadi, Leila Mouelhi, Radhouene Dabbeche**

*Department of Gastroenterology, Charles Nicolle Hospital, Tunis, Tunisia*

Drug induced liver disease (DILI) is being increasingly reported. More than 1000 drugs are incriminated such as methyldopa, an antihypertensive acting as a central inhibitor of the α-adrenergic receptor. Methyldopa hepatotoxicity is usually found to occur acutely within months or insidiously years after beginning the treatment. We report a case of chronic DILI due to methyldopa revealed by an acute liver failure 3 years after the onset of the treatment. A 66 Caucasian year-old woman was treated for hypertension with methyldopa since 3 years. She was admitted for acute jaundice, dark urine, pruritus and weakness. Laboratory testing showed: ASAT 22 upper limit of normal (ULN), ALAT 12 ULN, GGT 3 ULN, ALP 1.2 ULN, serum bilirubin of 664 µmol/L (479 µmol/L direct) and hemolytic anemia. Acute liver failure was diagnosed with decreased prothrombin time (45%). She had no other past medical history, took no other medications, did not consume alcohol neither herbs. Screening for hepatitis A, B, C, E, cytomegalovirus, Epstein-Barr virus and herpes simplex virus was negative. Antinuclear antibody, antismooth muscle antibody and anti-liver kidney microsomal were also negative with normal immunological quantification. Abdominal CT scan showed dysmorphic liver with signs of portal hypertension. Liver biopsy showed necrotic and inflammatory lesions of hepatic parenchyma associated with cholestasis related to an immune-allergic mechanism. The patient was diagnosed with acute liver failure revealing chronic DILI due to methyldopa-induced hepatotoxicity and drug-induced hemolytic anemia. Despite the withdrawal of methyldopa, the progression was towards decompensated cirrhosis within 6 months. Methyldopa is clearly linked to several cases of DILI. In our case acute onset had appeared years after starting therapy revealing chronic DILI with progression towards decompensated cirrhosis. Thus hepatic monitoring of patients under methyldopa should be done to prevent severe DILI by an early withdrawal.

***Keywords:*** Drug-induced liver injury, methldopa, hepatotoxicity

***PP-287***

## *Severe immune mediated gastritis secondary to ipilimumab and nivolumab in a patient with metastatic small cell lung cancer*

**Jose Lara Gonzalez, John Davis, Thuy Le, Ryan Wanamaker**

*Memorial Health University Medical Center, Georgia, USA*

***Introduction:*** Immune checkpoint inhibitors (ICPIs) are an increasingly popular therapy in the treatment of malignancy. While the family of drugs has improved care and increased duration of survival in thousands of patients, ICPIs are not without side effects. Gastrointestinal immune-related adverse events (GI-irAE) constitute both the most common toxicity of ICPIs, as well as the predominant occurrence necessitating withdrawal of administration (1). Ipilimumab is a humanized monoclonal antibody targeting CTLA-4 and Nivolumab targets the PD-1 protein. GI-irAE secondary to Ipilimumab occurs in theory due to the broader expression of CTLA-4 within the gastrointestinal tract (2). Here we present a case of ICPI induced autoimmune mediated gastritis in a patient with metastatic small cell lung cancer.

***Case:*** A 62 year- old male with metastatic small cell lung cancer that presents to the emergency department with complaints of severe nausea, vomiting, and abdominal pain over the last two weeks since his last chemotherapy infusion of ipilimumab and nivolumab. He reported epigastric abdominal pain and the inability to tolerate any oral intake, as well as an associated 10-15 pound weight loss over the same time frame. He had a lipase of 1956 IU/L and a C-reactive protein of 8.6 mg/dL. CT abdomen and pelvis with contrast showed 1.5 cm circumferential wall thickening at the stomach with associated inflammatory stranding. Patient was started on intravenous fluid hydration for presumptive pancreatitis and gastroenterology was consulted, who recommended obtaining an esophagogastroduodenoscopy (EGD) due to concern for immune mediated gastritis. Patient had an EGD performed, which showed diffuse severe mucosal changes characterized by congestion, erythema, friability (with spontaneous bleeding), inflammation and ulceration throughout the entire examined stomach. Biopsies obtained from the stomach showed ulcerated mucosa with purulent exudate and inflamed granulation tissue. It was deemed that patient had autoimmune gastritis secondary to immunotherapy and was started on prednisone 60mg daily. One day after the administration of prednisone, he reported significant improvement in his abdominal pain and was subsequently discharged on high dose steroids. Checkpoint inhibitors effectively treat a number of cancers, but are not without side effects. Ipilimumab has long been associated with significant GI-irAEs, notably diarrhea and colitis. Diarrhea and colitis occur at nearly twice the frequency compared to nivolumab (3). GI-irAEs are less-commonly associated with PD-1 inhibition from nivolumab, but when present, it appears that gastritis may comprise a greater proportion of these manifestations (4, 5). No clinical guidelines exist for the treatment of immune mediated gastritis, and our patient was treated based on the guidelines for grade 3 GI-irAE-induced colitis, which consisted of glucocorticoids and subsequent steroid taper with a goal towards resumption of immunotherapy (6). Of note, future treatment algorithms may change, as recent data elsewhere has suggested earlier use of infliximab may prompt quicker symptom resolution (3).

***Conclusion:*** The combination of ipilimumab and nivolumab led to the rare adverse effect of immune mediated gastritis.

***Keywords:*** Immune checkpoint inhibitors, autoimmune mediated gastritis, nivolumab, ipilimumab

---

***PP-288***

## *Teucrium polium induced hepatitis, all that shines is not gold*

**Anastasios Stefanopoulos[1], Vasiliki Vasilakopoulou[1], Ioannis Mitrakos[2], Ioannis Poulos[2], Christos Serafeim[1], Dimitra Tsakiri[1], Christina Papadima[1], Pigi Konida[1], Georgios Mavras[1], Foteini Rozi[1], Athanasios Panoutsopoulos[1]**

*[1]Department of Internal Medicine, General Hospital of Argos, Argos, Greece*
*[2]Department of Radiology, General Hospital of Argos, Argos, Greece*

The objective of this case report is to demonstrate a case of hepatitis induced by Teucrium polium and highlight this potentially complication of some herbal remedies. A 49-year-old Caucasian female with known history of Diabetes type 2 and hypothyroidism presented to the Emergency Department of our clinic complaining of jaundice without fever or any abdominal pain. Symptoms had started approximately two days ago. On further questioning she revealed that she consumed herbal remedy Teucrium polium L the last days in order to lower her blood cholesterol and glucose levels. Laboratory investigation revealed SGOT 1528 and SGPT 1654 and abdominal Ultrasound signs of acute hepatitis and a hemangioma. Serological tests for hepatitis B surface antigen, anti-hepatitis C virus, IgM to hepatitis A virus, hepatitis B virus core antigen, cytomegalovirus, Epstein–Barr virus and herpes simplex virus were negative. Drug-induced hepatitis caused by the herbal medicine T. polium was considered the most probable diagnosis. The diagnosis was based on the temporal relationship to the consumption of the drug, the prompt resolution after stopping it and the lack of any obvious cause of self-limited liver disease. Symptoms started to improve after one week and after two weeks, liver enzymes values were within normal range and there was no sign of jaundice or sign of hepatitis in the abdominal ultrasound. Herbal induced hepatitis still remains a serious diagnostic challenge but it can be cured with the proper intervention.

***Keywords:*** Hepititis, teucrium polium, herbal remedies

---

***PP-289***

## *The behavior of hepatocellular carcinoma in obese patients*

**Farheen Lubna Hashmi, Zaigham Abbas**

*The Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** The prevalence of obesity has increased over the years and some of the patients with hepatocellular carcinoma (HCC) are obese. In order to examine any effect of obesity on the behavior of HCC, we scrutinized medical records of our obese HCC patients.

***Materials and Methods:*** HCC patients with body mass index (BMI) of greater than 27 kg/m$^2$ were included in this retrospective study and their clinical, laboratory and radiological parameters noted.

***Results:*** The total number of patient is 52; 37 were male and 15 female. The median age of the patients was 55 years (range 33-93). The etiology of HCC was HCV 34.6%, HBV 17%, HDV 1.9%, NAFLD 30%, others (5.7%). Their median BMI was 31.9 (27.1-43.5). Alpha-fetoprotein was 9.1 (1.1-8937). Twenty-two (42%) patients were of Child A class and rest Child B or C. HCC was involving the right lobe in 30 (58%), left lobe in 13 (25%) and both lobes in 9 (17%) patients.

***Conclusion:*** Most of the obese HCC patients were middle age males with HCV related HCC followed by NAFLD as etiological factors. A comparative study with non-obese HCC is underway.

***Keywords:*** Obesity, liver

---

***PP-290***

## *Shorter durations of concomitant regimens have comparable efficacy to 14-day concomitant therapy for helicobacter pylori eradication: A randomized clinical trial*

**Hafez Fakheri[1], Zohreh Bari[1], Tarang Taghvaei[1], Mohammad Yaghoobi[2]**

*[1]Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[2]Division of Gastroenterology, Mcmaster University, Hamilton On, Canada*

***Background/Aims:*** Helicobacter pylori (H. pylori) is one of the most common bacterial infections in the world, associated with peptic ulcer disease and gastric cancer. We designed a study to compare the efficacy of 10-day vs. 12-day concomitant therapies for first-line H. pylori eradication in Iran.

***Materials and Methods:*** Two hundred and eighteen patients with naïve H. pylori infection, were randomly divided into 2 groups to receive either 10-day or 12-day concomitant regimens, composed of Pantoprazole 40 mg, Amoxicillin 1 gr, Clarithromycin 500 mg and Metronidazole 500 mg, all given twice daily. Eight weeks after therapy, H. pylori eradication was assessed by 14C- Urea breath test.

***Results:*** Two hundred and twelve patients completed the study. According to intention to treat analysis, the eradication rates were 83.6% (95% confidence interval=76.6–90.5) and 88.8% (95% CI=82.8–94.7) in 10-day and 12-day concomitant groups, respectively (p=0.24). Per-protocol eradication rates were 85.9% (95% CI=79.3–92.4) and 92.6% (95% CI=87.6–97.5), respectively (p=0.19). The rates of severe side effects were not statistically different between the two groups (3.6% vs. 8.1%).

***Conclusion:*** Twelve-day concomitant therapy could achieve ideal eradication rates by both intention to treat and per-protocol analyses. In order to reduce the cost of drugs and the rate of adverse effects of therapy and simultaneously to obtain ideal eradication rates, 12-day concomitant regimen seems to be a good alternative to previously suggested 14-day concomitant therapy.

***Keywords:*** Helicobacter pylori, concomitant, regimen, eradication

---

***PP-291***

## *Association between using detergents and the risk of ulcerative colitis*

**Hafez Fakheri[1], Saeid Osati[2], Reza Homayounfar[3], Zohreh Bari[1]**

*[1]Gut And Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[2]National Nutrition and Food Technology Research Institute, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[3]Noncommunicable Diseases Research Center, Fasa University of Medical Sciences, Fasa, Iran*

***Background/Aims:*** Inflammatory bowel disease (IBD) is a group of mucosal inflammatory problems affecting the small or large intestine. Since the last century, the incidence of IBD has been constantly increasing, afflicting the majority of urban population in developed societies. The aim of this study was to investigate the association of using detergents and the occurance of IBD.

***Materials and Methods:*** In this case-control trial, 65 patients with ulcerative colitis and 135 healthy people were examined. Demographic and anthropometric information of the participants were gathered through a mechanized inventory. The obtained data also included the information regarding the exposure to detergents and bleaches. To investigate the association of exposure to detergents and the development of ulcerative colitis, the logistic regression model adjusted for potential confounding factors was used.

***Results:*** According to the results, gender (p=0.012), age (p=0.009), job (p<0.001) and the application of detergents (p<0.001) were associated with ulcerative colitis. The chances of UC, after adjustment for potential confounding factors such as gender, age, and job, were 4 times, 23 times, 26 times, and 104 times higher in monthly, every other week, weekly, and daily users of detergent than occasional consumers, respectively.

***Conclusion:*** Frequent use and exposure to detergents can be among the factors influencing the development of ulcerative colitis.

***Keywords:*** Inflammatory bowel disease, detergent, ulcerative colitis

***PP-292***

## *Comparing the performance of Blatchford and Rockall scores in the risk stratification of non-variceal upper gastro-intestinal bleeding*

**Iradj Maleki[1], Sanaz Gonoodi[2], Seyed Mohammad Valizadeh Toosi[1], Hafez Fakheri[1], Tarang Taghvaei[1], Vahid Hosseini[1], Arash Kazemi[1], Zohreh Bari[1]**

*[1]Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[2]Mashhad University of Medical Sciences, Mashhad, Iran*

***Background/Aims:*** Acute upper gastrointestinal bleeding is among the most common causes for emergency gastroenterology admissions. Several risk-stratification scoring systems have been designed in order to categorize those who need urgent endoscopic evaluation; however, it is obscure whether these scoring systems are reliably enough to serve as a decision guide.

***Materials and Methods:*** Two hundred and forty eight patients with upper gastrointestinal bleeding were included in this study. Glasgow-Blatchford Bleeding score (GBS), clinical Rockall score (C-Rockall) and Full Rockall score were calculated for each patient and performance of these scores for predicting multiple variables including 15-day mortality, rebleeding and the need for endoscopic intervention, blood transfusion or surgery and the overall prognosis were evaluated.

***Results:*** According to our results, F-Rockall scoring system showed a good performance in predicting mortality, rebleeding, and the need for surgery, blood transfusion, endoscopic intervention and prognosis of the patients. C-Rockall scoring system was successful just in predicting mortality and GBS showed an acceptable performance only in predicting mortality and the need for blood transfusion.

***Conclusion:*** According to our results, F-Rockall scoring system seems to be a suitable predictive tool for different outcomes of upper gastrointestinal bleeding. However, in centers that endoscopists are not available at the time of admitting the patient, GBS can be used for predicting rebleeding and the need for blood transfusion; and C-Rockall scoring system can be applied to predict mortality.

***Keywords:*** Gastrointestinal bleeding, Rockall, blatchford, score

---

***PP-293***

## *Evaluation of cytokeratin-18, immunoglobulin a, tumor necrosis factor α and hyaluronic acid as biomarkers for steatohepatitis and liver fibrosis*

**Iradj Maleki Mahmood Reza Amin Afshari[1], Tarang Taghvaei[2], Vahid Hosseini[2], Alireza Rafiei[1], Zhila Torabizadeh[2], Zohreh Bari[2]**

*[1]Mazandaran University of Medical Sciences, Sari, Iran*
*[2]Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*

***Background/Aims:*** Non-alcoholic Fatty Liver Disease (NAFLD) is the most common cause of chronic liver disease. The present study evaluated the utility of some biomarkers for diagnosis of steatohepatitis and liver fibrosis.

***Materials and Methods:*** Fifty four NAFLD patients and 56 healthy participants with normal body mass index enrolled the study. Serum aminotransferases, fasting blood glucose, triglyceride, cholesterol, cytokeratin-18 fragments including M30 and M65, immunoglobulin A (IgA), tumor necrosis factor α (TNF α) and hyaluronic acid (HA) levels were measured in all participants and liver biopsies were obtained from all NAFLD patients. Necroinflammatory activity was scored according to the scoring system described by Kleiner et al. Also, fibrosis was staged from 0 to 4 (no fibrosis to cirrhosis).

***Results:*** Among the target variables of HA, TNF.α, CK-18 and IgA, only HA and CK-18 fragments (M30 and M65) showed statistically higher levels in NAFLD group compared with the controls. According to our results, NASH patients had significantly higher levels of IgA, M30 and M65 than simple steatosis patients. Regarding pathologic grading, 23 patients were non-NASH and 31 had NASH. Among NASH patients, 15 patients had stigmata of fibrosis; 10 were in lower stages (F1, F2) and 5 were in higher stages (F3, F4). Comparing patients with lower or higher fibrosis stages, AST, ALP, cholesterol, LDL, M30 and M65 were significantly higher in the latter group ($p<0.05$).

***Conclusion:*** Our study showed that M30, M65 and IgA are useful markers in diagnosis of liver inflammation. Also, M30 and M65 can be used for the diagnosis of high or low stages of liver fibrosis. However, these biomarkers cannot be used as a diagnostic tool alone, but are helpful in diagnosing liver inflammation or fibrosis. Further studies with larger number of patients are needed.

***Keywords:*** Non-alcoholic fatty liver disease, cytokeratin, tumor necrosis factor alfa

---

***PP-294***

## *Assessment of mucosal recovery after treatment with a gluten free diet among adult patients with celiac disease*

**Nemteanu Roxana[1], Plesa Alina[2], Girleanu Irina[2], Ciortescu Irina[2], Danciu Mihai[3], Gheorghe Liliana[4], Trifan Anca[1]**

*[1]University of Medicine and Pharmacy "Grigore T. Popa", Iasi, Romania*
*[2]Institute of Gastroenterology and Hepatology, "St. Spiridon" Hospital", Iasi, Romania*
*[3]Department of Pathology, "St. Spiridon" Hospital", Iasi, Romania*
*[4]Department of Radiology, "St. Spiridon" Hospital", Iasi, Romania*

***Background/Aims:*** A small subset of celiac disease (CD) patients becomes refractory to a gluten-free diet with persistent intestinal villous atrophy (VA). We aim to assess the prevalence of refractory CD in a cohort of CD patients.

***Materials and Methods:*** The study included adult patients with biopsy proven CD identified through computerized biopsy reports from the Department of Pathology. Follow-up biopsy were dichotomized into persistent VA (Marsh 3a-c class: partial or subtotal –total VA) or improvement (Marsh 0-2).

***Results:*** The initial histopathology showed complete VA (Marsh 3c) in 34 (33.3%), subtotal (Marsh 3b) in 18 (17.6%) cases, partial VA (Marsh 3a) in 27 (26.5%) cases, while de reminder had mild enteropathy (Marsh I, II) in 23 (22.5%) cases. Ninety-three (91.2%) patients underwent a follow-up appointment. Approximately two-thirds (n=68, 66.7%) of patients had at least one follow-up biopsy. Among the 68 of 102 patients with a follow-up biopsy after initiation of GFD, 25 (59.5%) had some degree of intestinal villous atrophy (Marsh type 3). Total VA was confirmed in 3 (7.1%) of patients. Follow-up biopsy demonstrated persistent VA in 14 (56%) patients. Patients with partial VA on the initial diagnostic biopsy were less likely to have persistent VA on follow-up biopsy than those who originally had total/subtotal VA ($p=0.003$).

***Conclusion:*** It is currently unknown whether mucosal recovery or complete mucosal healing is actually linked to survival among patients with CD. Intact mucosa has remained a desirable goal of the therapy.

***Keywords:*** Celiac disease, villous atrophy

***PP-295***

## *Is there a role for anti-tissue tranglutaminase antibodies in assessing mucosal recovery in celiac disease?*

**Nemteanu Roxana[1], Plesa Alina[1], Ciortescu Irina[1], Girleanu Irina[1], Danciu Mihai[2], Gheorghe Liliana[3], Mazilu Bogdan[1], Sfrijan Cristina[1], Gorincioi Cristina[1], Trifan Anca[1]**

*[1]University of Medicine and Pharmacy "Grigore T. Popa", Institute Of Gastroenterology and Hepatology, Iasi, Romania*
*[2]Department of Pathology, "St. Spiridon" Hospital", Iasi, Romania*
*[3]Department of Radiology, "St. Spiridon" Hospital", Iasi, Romania*

***Background/Aims:*** Mucosal recovery after treatment with a GFD may be clinically relevant. The aim was to assess the serological response and mucosal recovery rate among adult patients diagnosed with CD under a GFD.

***Materials and Methods:*** All patients included in the study had serology evaluation and duodenal biopsies at diagnosis and at least one follow-up intestinal biopsy to assess mucosal recovery after at least 6 months after diagnosis and initiation of GFD.

***Results:*** Of the 102 patients who were enrolled, 80 (78.4%) were females, mean age 40.36±12.31 years. The initial histopathology showed complete VA (Marsh 3c) in 34 (33.3%), subtotal (Marsh 3b) in 18 (17.6%) cases, while de reminder had mild enteropathy in 23 (22.5%) cases. When assessing the serological parameters, IgA-Ttg levels (61.45±76.458 u/mL vs 162.02±106.179 u/mL, p=0.001) correlated with intestinal villous atrophy (Marsh 1-2 *vs* Marsh 3a-c) in CD patients, with a sensitivity of 82.56% and a specificity of 91.78% for mucosal atrophy upon diagnosis (AUC=0,909; IC95%: 0.86-0.95). Ninety-three (91.2%) patients underwent a follow-up appointment. Among them, 68 (66.7%) had at least one follow-up biopsy. Mucosal recovery was identified in 42 (41.2%) cases, whilst 25 (59.5%) had some degree of intestinal VA (Marsh type 3). Mucosal healing was confirmed in only one case (Marsh 0). At follow-up, the mean antibody titer was 28.14±60.19U, and serological response was documented in 79 (76.7%) cases. Among the 79 cases who had negative tTG levels, different degrees of VA were documented (n=15, 19%).

***Conclusion:*** It is currently unknown whether mucosal recovery or complete mucosal healing is actually linked to survival among patients with CD.

***Keywords:*** Celiac disease, mucosal healing, gluten free diet

---

***PP-296***

## *Importance of multidisciplinary approach in pancreatic leaks*

**İbrahim Ethem Taşkaya[1], Fatih Suna[1], Gönül Çaltepe[1], Ayhan Gazi Kalaycı[1], Berat Dilek Demirel[2], Rıza Ferit Bernay[2], Ahmet Bektaş[3], İrem Sarı[4], Meltem N. Ceyhan Bilgici[4]**

*[1]Division of Paediatric Gastroenterology, Hepatology and Nutrition, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[2]Department of Paediatric Surgery, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[3]Department of Internal Medicine, Gastroenterology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[4]Department of Paediatic Radiology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*

***Introduction:*** Acute pancreatitis (AP) is a disease in which there is an autolysis of this organ. The diagnosis of pancreatitis in children has been increasing for the last two decades. Biliary, metabolic, hereditary, anatomical anomalies and genetic predisposition play a role in the etiology of AP. AP is a clinical diagnosis based on a combination of history, physical examination, laboratory testing, and imaging findings. AP can be classified as mild, moderately severe, or severe. The mainstay of current treatment of acute pancreatitis in children is analgesia, intravenous fluids, pancreatic rest, and monitoring for complications.

Local complications include fluid collections, pancreatic necrosis, pancreatic abscess, duct rupture, duct strictures, bleeding and pseudocyst formation. We present a case with multidisciplinary follow-up and treatment of acute pancreatitis presenting with pseudocyst and internal fistula.

***Case:*** A 6-year-old male patient was admitted to the emergency department with vomiting and abdominal pain, starting one day ago. In the physical examination, there was widespread sensitivity and defense in all quadrants in the abdomen. Amylase, lipase levels and abdominal ultrasonography were consistent with acute pancreatitis. The patients oral feeding was stopped and medical treatment was started. Endoscopic ultrasonography (EUS) and fine needle aspiration were performed. Jejunostomy was opened for postpyloric feeding. A laparotomy was performed and an anterior and posterior drain was placed. Magnetic resonance cholangiopancreatography (MRCP) showed that the pseudocyst was associated with the pancreatic duct. Pancreatic sphincterotomy was performed on endoscopic retrograde cholangiopancreatography (ERCP). After the procedure, pancreatic enzymes returned to normal and the patient is still being followed up with subcutaneous octreotide treatment. The follow-up and treatment of patients with pancreatic leaks is performed by a multidisciplinary team including pediatric gastroenterologists, interventional radiologists and pancreatic (pediatric) surgeon. In this way, many patients with pancreatic leaks can be managed by endoscopic or radiological guided interventions and thus radical surgical interventions can be avoided.

***Keywords:*** Acute pancreatitis, pancreatic pseudocyst, multidisciplinary follow-up

---

***PP-297***

## *Evaluation of the ligation of intersphincteric fistula tract in the management of complex anal fistulas*

**Fatima Zahra El Rhaoussi, Hind Hamdani, Mohamed Tahiri Joutei, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Ibn Rochd*

***Background/Aims:*** The ligation of intersphincteric fistula tract (LIFT) is one of the newest sphincter-sparing surgical techniques for the treatment of anal fistulas. It consists on ligating and sectioning the fistulous tract by approaching it through the intersphincteric space. This technique aims to treat fistula with respect of the anatomy and function of the anal sphincter. The purpose of our study is to evaluate this technique in cryptoglandular non specific complexe anal fistulas.

***Materials and Methods:*** A prospective study, spread over 30 months (April 2016-October 2018), including patients operated for anal fistula by the LIFT technique in the Gastroenterology and Proctology Department of Ibn Rochd University Hospital in Casablanca. The healing was defined by the absence of purulent discharge or proctalgia 3 months after surgery. The anal continence was evaluated by the Cleveland score before and after the LIFT.

***Results:*** Twenty eight patients were included in the study with 30 anal fistulas, 2 of them had two fistulas each. The average age of our patients was 48 years [range: 24-82 years] with no gender predominance (sex ratio: 1). The proctological exam had found 28 high trans-sphincteric fistula, one low trans-sphincteric fistula and one supra sphincteric fistula. Fifteen patients had a recurrent fistula. Prior to the LIFT procedure, 27 patients had undergone at least one intervention, including 27 drainages by setons with flattening diverticulas in 14 cases. Two of our patients were treated by biological glue and one patient by rectal advancement flap, all of them relapsed. After the LIFT, excluding patients lost during follow up, 57.14% (16 patients) healed after a median follow-up of 12 weeks and no relapse was noted after an average follow-up of 18 months. Twelve patients (42.86%) relapsed within 12 weeks and 2 patients were lost during follow up. The LIFT failures were treated later by flattening in 2 cases, drainage by setons with flattening diverticulas in 10 cases awaiting for another treatment. No cases of anal incontinence were noted in our serie with a Cleveland score calculated at 0 before and after the LIFT.

***Conclusion:*** The LIFT technique proved her effectiveness (57.14%) in the management of complex anal fistulas with respect of sphincter function and anatomy of the anal canal, making this technique a promising one. The main causes of LIFT failures in our serie are deep tract and recurrent transphincteric fistulas and the presence of diverticulas.

***Keywords:*** Ligation of intersphincteric fistula tract, complex anal fistulas, sphincter-sparing surgical techniques

***PP-298***

## *Crohns disease with pyoderma gangrenosum in a Nigerian patient*

**Muhammad Manko[1], Mansur Femi Mohammed[1], Ahmad Kumo Bello[1], Patrick Egbegbedia[1], Saadatu Abdurrahman Sambo[2], Osanyibofu Eugene[2], Abdullahi Umar[3], Shehu Abdullahi[4], Dauda Eneyamire Suleiman[4], Shettima Kagu Mustapha[1]**

*[1]Gastroenterolgy Unit, Department of Medicine, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria*
*[2]Department of Medicine, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria*
*[3]Dermatology Unit, Department of Medicine, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria*
*[4]Department of Pathology, Ahmadu Bello University Teaching Hospital, Zaria, Nigeria*

Crohns Disease (CD) is one of the major forms of Inflammatory Bowel Disease that can affect any part of gastrointestinal tract. CD can also affect other organ systems such as the skin, the eye and joints. Pyoderma gangrenosum (PG) is a rare skin manifestations of CD that occur in 0.5-2% of patients. To the best of our knowledge no case of CD with PG have been reported in our country of practice Nigeria. We therefore report a case of CD with PG in a Nigerian man. The patient is a 42 year old man who presented with a year history of recurrent mucoid and bloody diarrhea associated with progressive weight loss and low grade intermittent fever. He had history of right lower abdominal pain, mouth rash with dysphagia and nasal regurgitation of feeds, anal pain and itching. One month prior to presentation, he developed right leg ulcer which started as a small swelling that later rupture discharging sero-sanguinous substance. No eye or joint symptoms. On examination, he was chronically ill, pale, afebrile and dehydrated with grade III finger clubbing. He had an oral ulcer on the hard palate with exudative base measuring 3X2 cm. He had an ulcer over the supero-medial shin of the right leg measuring 8X8 cm with indurated edge and dirty/necrotic base covered by granulation tissue and foreign substance (topical traditional medication). Surrounding skin is xerotic, leathery and scaly (Figure 1). Abdomen was scaphoid and moves with respiration. He had epigastric tenderness. No abdominal masses and no organomegaly. Bowel sound was present and normoactive. Digital rectal examination revealed soiled anal area with anal tag at 11 o'clock position and a discharging ulcer at 3 o' clock position. Rectal mucosal was irregular and tender but no mass felt. Examining finger stained with loose yellow stool. Musculo-skeletal examination was essentially normal. An initial diagnosis of IBD (CD) with a differential diagnosis of abdominal tuberculosis was made. His Hb was 9.1g/dL (normocytic normochromic picture), WBC was 19.100/$mm^3$, Erythrocyte Sedimentation Rate was above 140mm/hr. Patient was commenced on antibiotics- intravenous metronidazole and intravenous ciprofloxacin. Subsequently, colonoscopy was done and revealed multiple ulcerations with bumpy mucosa and normal area of intervening mucosa in the rectum and sigmoid colon (Figure 2). Full colonoscopy could not be done due to poor preparation. Colonic histology revealed focal areas of ulceration, extensive inflammatory infiltrate including neutrophils, lymphocytes, and plasma cells in the lamina propia and submucosa. There are some exudates in the crypts and areas of lymphocytic aggregates and granulation tissue were also seen (Figure 3). Esophagogastroduedenoscopy showed grade A esophagitis and pangastritis. Leg ulcer biopsy showed ulcerated epidermis overlying intense necrotizing polymorphonuclear inflammatory infiltrates extending up to the deepest part of the specimen. The patient was then commenced on oral Sulfasalazine 1g TDS, Rabeprazole 20mg OD, in addition to the antibiotics. The leg ulcer was also being dressed once daily. The patient's diarrhea subsided and was tolerating oral feeds. Leg ulcer started healing and he was discharged after 5 weeks on admission to be followed up at gastrointestinal clinic of our hospital. Common symptoms of CD inlclude chronic bloody and mucoid diarrheoa, abdominal pain and weight which is consistent with oue patients presentation. Our patient had oral and perianl manifestations which are seen in 10-15% and 20-30% of CD patients respectively. PG seen in our patient is a rare manifestation of CD and seen in 0.5-2% of patients. CD and PG share common drug therapy such as steroids and sulfasalazine. However, while steroids is the first line of therapy for PG it may no be appropriate in certain group of CD patients. Our patient was being treated with sulfasalazine and antibiotics with remarkable improvement. Our choice of sulfasalazine was because of its affordability and availability in our setting. Steroid was not used in our patient because of possibility of delay in healing of perianal lesions. This case represent a relatively rare presentation of CD with PG and therefore CD should be sought in patients with chronic leg ulcer.

***Keywords:*** Crohns, pyoderma, gangrenosum

**Figure 1.** Ulcerated pyodermal gangrenosum with necrotic base on the right leg.

**Figure 2.** Colonoscopic view showing multiple areas of ulcerations and normal intervening mucosa.

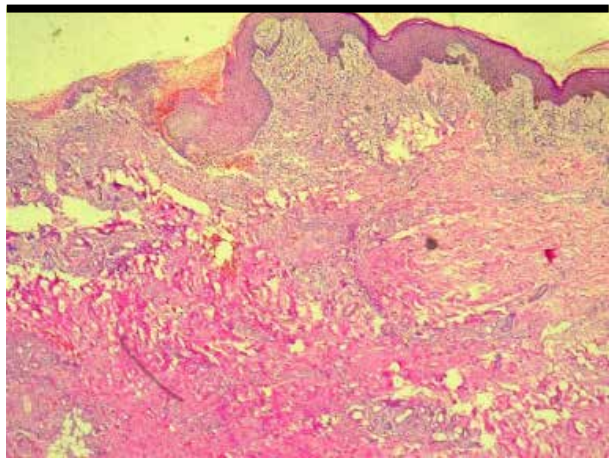


**Figure 3.** Photomicrograph of the colonic histology showing focal ulcerated area with extensive inflammatory infiltrates in the lamina propia and submucosa, crypt exudates, lymphocytic aggregates and granulation tissue. H&E X40.

***PP-299***

## *Effectiveness and safety of eus guided choledochoduodenostomy using Lumen-Apposing Metal Stents (LAMS) – A systematic review and meta-analysis*

**Rajesh Krishnamoorthi[1], Chandra Shekhar Dasari[2], Viveksandeep Thoguluva Chandrasekar[3], Harshith Priyan[4], Mahendra Jayaraj[5], Joanna Law[1], Michael Larson[1], Richard Kozarek[1], Andrew Ross[1], Shayan Irani[1]**
*[1]Virginia Mason Medical Center, Washington, USA*
*[2]Kansas City Va Medical Center, Kansas, USA*
*[3]University of Kansas Medical School, Kansas, USA*
*[4]Mayo Clinic, Minnesota, USA*
*[5]University of Nevada Medical Center, USA*

***Background/Aims:*** The lumen-apposing metal stents (LAMS) are being increasingly used for choledochoduodenostomy (CDD). We performed a systematic review and meta-analysis to evaluate the effectiveness and safety of CDD using LAMS.

***Materials and Methods:*** We performed a systematic search of multiple databases through May 2019 to identify studieson CDD using LAMS. Pooled rates of technical success, clinical success, adverse events and recurrent jaundice associated with CDD using LAMS were estimated. A subgroup analysis was performed based on use of LAMS with electrocautery-enhanced delivery system (EC-LAMS).

***Results:*** Seven studies on CDD using LAMS (with 284 patients) were included in the meta-analysis. Pooled rates of technical and clinical success were 95.7% (95%CI: 93.2-98.1, I2=6.5%) and 95.9% (95%CI: 92.8-98.9, I2=42.36%) respectively. Pooled rate of post-procedure adverse events was 5.2% (95%CI: 2.6-7.9, I2=2.9%). Pooled rate of recurrent jaundice was8.7% (95%CI: 4.5%-12.8%, I2=42%). On subgroup analysis of CDD using EC-LAMS (5 studies with 201 patients), the pooled rates of technical and clinical success were 93.8% (95%CI: 90.4-97.1, I2=0) and 95.9% (95%CI: 91.9-99.9, I2=52.93%) respectively. Pooled rate of post-procedure adverse events was 5.6% (95%CI 1.7-9.5, I2=31.74%). Pooled rate of recurrent jaundice was 11.3% (95%CI 6.9-15.7, I2=0).

***Conclusion:*** CDD using LAMS/EC-LAMS is an effective and safe technique for biliary decompression in patients who failed ERCP. Further studies are needed to assess CDD using LAMS as primary treatment modality for biliary obstruction.

***Keywords:*** Lumen apposing metal stents, choledochoduodenostomy, biliary drainage

---

***PP-300***

## *Complex approach to the treatment of obesity, insulin resistance and fatty hepatosis in menopause women*

**Azada Rahimova, Azada Alekperova, Tora Sadigova**

*Azerbaijan Medical University, Baku, Azerbaijan*

***Background/Aims:*** Due to estrogen deficiency obesity affects every third woman in the postmenopausal period, which affects metabolic processes, particularly the glycemic profile, insulin resistance, increased body mass index (BMI), dyslipidemia and fatty hepatosis. That is why proper therapeutic measures aimed to prevent the development of diabetes mellitus type II, hypertension and severe fatty degeneration of the liver are needed. The aim of the study is assesment of liver parameters (HOMA index, BMI) in complex therapy, including lifestyle changes, diet and metformin intake.

***Materials and Methods:*** 24 women (age 50–59) with BMI=29.4±0.5; HOMA index of>2.7; elevated ALT, AST and fatty hepatosis Grade II revealed by ultra-sonic method participated in this study. All patients were divided into 2 groups-14 women (group 1) received complex treatment, including lifestyle changes (sport, diet and intake of metformin), and 10 women (group 2) suggested only lifestyle changes.

***Results:*** All patients were assigned to 45 minute physical activity at least 3 times a week, swimming or walking were preferable. Low-calorie high-protein diet was suggested, i.e. reduce consumption of simple carbohydrates, intake of small portions of food-5 times a day (every 3 hours). Group I received additional metformin 1000 mg 2 times a day. In 3 months, indicators were monitored. Results presented in Table 1.

***Conclusion:*** Complex approach including intake of metformin and lifestyle changes had better outcome to the treatment of insulin resistance, obesity and fatty hepatosis than without intake of metformin.

***Keywords:*** Obesity, postmenopausal women, metformin

***Table 1.*** Comparison of research results

| Indicators | Group I=14 women | | | Group II=10 women | | | |
|---|---|---|---|---|---|---|---|
| | Primary | 3 months | p* | Primary | 3 months | p* | $p_{1-2}$ |
| ALT | 128±1.2 U/L | 63±0.8 U/L | <0.05 | 125±1.1 U/L | 84±0.9 U/L | <0.05 | <0.05 |
| AST | 76±1.4 IU/L | 41±1.0 IU/L | <0.05 | 77±1.0 IU/L | 51±0.8 IU/L | <0.05 | <0.05 |
| HOMA-IR | >2.7 | >2.5 | <0.05 | >2.7 | >2.6 | <0.05 | >0.05 |
| Body mass index | 29.9±0.5 | 25.3±0.4 | <0.05 | 29.2±0.3 | 26.2±0.5 | <0.05 | <0.05 |
| Degree of fatty hepatosis | Grade II | Grade I | | Grade II | Grade II | | |

p*-the significance of differences in indicators after treatment compared with baseline data, p1-2-the significance of differences between the 1st and 2nd groups

***PP-301***

## *Fibrosis screening in patients with nafld using a point shear wave elastography (PSWE) technique*

**Bâldea Victor, Mare Ruxandra, Șirli Roxana, Popescu Alina, Sporea Ioan**

*Victor Babeș University of Medicine and Pharmacy, Timi, Șoara*

***Background/Aims:*** Nonalcoholic Fatty Liver Disease (NAFLD) has recently been recognized as the most prevalent liver disease worldwide, fibrosis stage being the strongest predictor for disease-specific mortality. Non-invasive assessment of liver fibrosis has been increasingly used instead of liver biopsy. ElastPQ is a point Shear Wave Elastography (pSWE) technique that has good accuracy for staging liver fibrosis in previous published papers. The aim of this study was to assess the value of ElastPQ as a screening tool for liver fibrosis assessment, in a cohort of consecutive patients with NAFLD, from daily outpatient practice.

***Materials and Methods:*** Liver fibrosis was assessed by means of pSWE (ElastPQ; Affinity 70, Phillips).Valid liver stiffness (LS) values were defined as the median of 10 liver "non-zero" measurements, in a homogenous area of liver parenchyma.Reliable LS measurements where defined as the median value of 10 measurements with an IQR/M <30%.The diagnosis of NAFLD was made by the presence of hepatic steatosis on ultrasound ("bright liver" with posterior shadowing and increased hepato-renal index) after excluding by anamnesis significant alcohol consumption.To discriminate between ElastPQ fibrosis stages we used the following cut-off values: F≥2: 6.9 kPa; F≥3: 8.4 kPa and for F=4: 12.4 kPa.

***Results:*** The study group consisted of 420 cases with NAFLD from a cohort of 990 cases with various chronic liver diseases: HBV 19% (191/990), HCV 13.5% (134/990), alcoholic liver disease (ALD) 6.9% (69/990) and other causes 17.7% (176/990), evaluated by liver elastography in daily outpatient practice. We enrolled 414 consecutive patients with NAFLD in whom reliable LS measurements were obtained with mean age 48.6±12.6 years, 70% male. After applying the proposed cut-off values, we found out that 86.4% (358/414) of patients where below the cut-off value of significant fibrosis (F0-F1), 13.6% (56/414) had significant fibrosis (F≥2), while advanced fibrosis F≥3 was found in 6% (25/414) of patients.

***Conclusion:*** NAFLD was the most frequent indication for performing ElastPQ in daily outpatient practice. ElastPQ is a good and reliable point of care tool for fibrosis screening that could rule out significant fibrosis in the majority of patients and that can identify patients with clinically significant fibrosis related to NAFLD and prioritize them for treatment.

***Keywords:*** Liver elastography, fibrosis, nafld

***PP-302***

## *Risks and characteristics of early-onset colorectal cancer: A single center retrospective study*

**Elif Sitre Koç[1], Ecem Çağla Hayırlıoğlu[1], Nesliar Eser Kutsal[2], Aziz Yazar[3], Aysun Bozbaş[2], Başak Oyan[3], Mehmet Teomete[3], Cem Aygün[2], Fatih Oğuz Önder[2], Nurdan Tözün[2]**

*[1]Department of Internal Medicine, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*
*[2]Department of Gastroenterology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*
*[3]Department of Medical Oncology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Recent studies have shown a steady increase in the incidence of early onset (<50 years) colorectal cancer (EOCRC) in contrast to a decline in that of patients>50 years of age. EOCRC cancer is reported to have a more progressive course and may have a genetic and epigenetic background. In this study,we aimed to investigate the disease characteristics and risk factors for colorectal cancer in patients <50 years old and compare with the patients over 50 years of age.

***Materials and Methods:*** We retrospectively analyzed case files of 200 patients diagnosed with CRC and identified 100 patients aged less than 50 years diagnosed between January/ 2009 and June/2019. Patients were divided into Group A (<50 years) and B (>50 years) according to the age at diagnosis. Patients' demographic characteristics, disease history, symptoms, history of cigarette smoking and alcohol use, BMI, H.pylori infection were included in the analysis. Characteristics of the tumor, localization, size, TNM stage were also analyzed.

***Results:*** 200 patients were included in the study. Patients were divided into group A (n=100; age 38,8±6,7; 53 male) and group B (n=100; age:65,1±8,4; 57 male). Patients in group A and B had similar frequency and duration of symptoms before diagnosis. Patients in group B had higher rate of active or previous cigarette or alcohol use. Group A and B had similar rate of family history of colon cancer. Patients in group A had lower BMI (24.5±4 vs 27.8±5,6;p=0.0001); lower frequency of hypertension and diabetes. Rate of H.pylori positivity, previous history of other cancers were similar. Group B had higher rate of history of cholecystectomy and/or appendectomy. Frequency of right sided colon cancer was lower (11.3% vs 25.8%; p=0.03) in group A. Group A had a trend for advanced T (T3-T4 vs other p=0.05) and N stage of tumor (Trend; p=0.02). Rates of metastatic disease were similar (A: 15.3% vs B: 7.1%; p=0.12) in both groups.

***Conclusion:*** In line with literature, our study revealed that EOCRC patients have mainly left-sided colon cancer which is diagnosed at a more advanced stage. However, BMI which is regarded as a risk factor for colon cancer, was lower in EOCRC patients. Further investigations including genetic testing are needed to evaluate risk factors of early colorectal cancers.

---

***PP-303***

## *Can ischemia modified albumin (IMA) levels be a predictor of acute pancreatitis?*

**Hakan Yarkici, Gözde Derviş Hakim, Harun Akar**

*Tepecik Research and Training Hospital, İzmir, Turkey*

***Background/Aims:*** We aimed to determine the relationship between Ischemia Modified Albumin (IMA) and frequently used prognostic marker and scoring systems in patients with acute pancreatitis (AP).

***Materials and Methods:*** The study included 100 patients with AP over 18 years of age who applied to Tepecik Training and Research Hospital, Clinic of Gastroenterology. Patients included in the study; age, gender, body mass index (BMI), the presence of a previous episode of pancreatitis, outcome (discharge or death), disease etiology, disease severity, type of pancreatitis (necrotizing or edematous form), AP prognostic scoring system, biochemical parameters were recorded. IMA values

were compared statistically with the groups. SPSS 15.0 package program was used for statistical analysis. ANOVA, Post-Hoc Bonferroni test, correlation analysis was performed.

***Results:*** There was a weak correlation between IMA level and age (r=0.198, p=0.048), NEU (r=0.228, p=0.022) and moderate correlation between procalcitonin level (r=0.380, p<0.001). Negative moderate correlation between IMA and albumin were determined (r=-0.396, p<0.001). According to IMA values and severity of disease groups, IMA value (0.67±0.16) in severe group was detected statistically high (p=0.001) than mild group (0.45±0.12) and moderate severity group (0.44±0.13). There was a significant difference between IMA values and the group with the highest score in Ranson scores (p=0.016). Statistically significant difference was found between the highest Bisap (Bedside Index of Severity in Acute Pancreatitis) score and IMA values (p=0.002). However, no significant difference was found between IMA and HAPS (Harmless Acute Pancreatits Score) scores (p=0.648).

***Conclusion:*** In our study, high IMA values were associated with increased age, increased disease severity, high Ranson and Bisap score and procalcitonin elevation. IMA levels may be useful in determining the prognosis of AP.

***Keywords:*** Acute pancreatitis, ischemia modified albumin (IMA), severity

---

***PP-304***

## *Long-term outcomes of elderly patients with hepatocellular carcinoma*

**Jinmyeong Oh, Wonseok Kang, Dong Hyun Sinn, Geum-youn Gwak, Yong-han Paik, Moon Seok Choi, Joon Hyeok Lee, Kwang Cheol Koh, Seung Woon Paik**

*Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea*

***Background/Aims:*** In a rapidly-aging society, physicians encounter an increasing number of elderly patients with hepatocellular carcinoma (HCC). Thus, it is becoming more important to assess whether treatment should be considered for elderly patients. We focused on the management of HCC in elderly patients, with the aim of analyzing whether treatment for elderly patients with HCC really improves the long-term survival outcomes, and determining if age is an important contributor to patient's survival after treatment.

***Materials and Methods:*** We used a prospective HCC registry at Samsung Medical Center, Seoul, Korea, between January 1, 2005 and December 31, 2013. We included consecutive 346 patients aged 75 years or older (range: 75-88 years) and analyzed long-term outcome according to the treatment.

***Results:*** The median age was 77 years and female comprised of 34.7%. The etiology of liver disease was hepatitis B, hepatitis C and non-B non-C (NBNC) in 29.5%, 28.6% and 41.9%, respectively. BCLC stage was 0, A, B, C and D for 13.9%, 49.7%, 12.7%, 19.1% and 4.6%, respectively. Among 346 patients, 303 patients (87.6%) received treatment. Treatment was independent factor associated with long-term outcome [hazard ratio (HR) (95% confidence interval (CI)), 0.26 (0.17-0.40) p<0.001] in entire cohort, as well as in extremely old patients (aged ≥80 years, n=83) [HR (95% CI), 0.25 (0.08-0.71), p=0.010], while age was not independent factor for survival in entire cohort [HR (95% CI), 1.04 (0.99-1.10), p=0.074] and extremely old patients [HR (95% CI), 1.02 (0.86-1.21), p=0.78]. When stratified according to BCLC stage, treatment was associated with better survival in stage A, B and C, except for stage D.

***Conclusion:*** Age *per se* was not an independent factor for long-term outcome, while treatment was associated with better outcome in elderly HCC patients. Our results suggest that age alone should not be used to preclude elderly patients from receiving HCC treatment.

***Keywords:*** Hepatocellular carcinoma, elderly, treatment, survival, outcome

***PP-305***

## *Global consensus on definition and histological classification of non-coeliac gluten sensitivity*

**Kamran Rostami[1], Arzu Ensari[2], Amitabh Srivastava[1], Vincenzo Villanacci[3], Michael Marsh[5], Antonio Carroccio[22], Umberto Volta[37], Alessio Fasano[15], Julio Cesar Bai[9], David Sanders[36], Gabrio Bassotti[10], Anna Sapone[15], Carolina Ciacci[7], Luca Elli[1], Stefano Guandalini[25], Marjorie Walker[1], Geoffrey Homes[26], Laura De Magistris[20], Hilary Jericho[25], Gabriel Becheanu[11], Anna Boozzola[3], Carlo Catassi[14], Ada Florena[22], Roxana Maxim[35], Prasenjit Das[18], Govind Makharia[18], Katri Kaukinen[28], Adam Levene[27], Ronnie Ray[27], James Going[24], Nicola Fusco[23], Afshin Moradi[31], Giovanni Casella[16], Matt Johnson[6], Sherly Mathews[29], Rachele Delsordo[21], Chris Mulder[32], Camillo Di Bella[19], Giuseppe Mazzarella[30], Hamid Mohaghegh[34], Sauid Ishaq[41], Mohammad Rostami-nejad[34], Chiara Ricci[3], Simon Cross[36], David Hayman[40], Mehul Lamba[1], Juha Taavela[8], Sarah Liptrot[24], Christine Rodger[42], Mohammad Derakhshan[43]**

*[1]Gastroenterology Unit, Palmerston North Dhb*
*[2]Ankara University Medical School, Department of Pathology, Ankara, Turkey*
*[3]Spedali Civili,, Institute of Pathology, Brescia, Italy*
*[4]University of Newcastle Faculty of Health And Medicine, School of Medicine & Public Health, Callaghan, Australia*
*[5]University of Oxford, Wolfson College, Oxford, UK*
*[6]Luton Dunstable University Hospital, Gastroenterology, Luton, Bedfordshire, UK*
*[7]Dipartimento Di Medicina, Chirurgia E Odontoiatria, Scuola Medica Salernitana,università, Di Salerno Gastroenterologia, Salerno, Italy*
*[8]Central Finland Central Hospital, Jyväskylä, Finland*
*[9]Universidad Del Salvador, Research Institutes, Buenos Aires, Argentina*
*[10]Sofar Osp. Clinicla Gastro Università, Perugia, Italy*
*[11]Carol Davila University of Medicine & Pharmacy, Department of Pathology, Bucharest, Romania*
*[12]University of Rochester Medical Center, New York, Usa*
*[13]Institute of Pathology Spedali Civili, Brescia, Italy*
*[14]Universita Politecnica Delle Marche, Deptartment of Pediatrics, Ancona, Italy*
*[15]Massachusetts General Hospital, Center For Celiac Research &treatment, Boston, USA*
*[16]Medical Dept, Desio Hospital, Desio, Monza E Brianza (mb), Italy*
*[17]Grigore T. Popa, University of Medicine And Pharmacy, Pathology Department, Iasi, Romania*
*[18]All India Institute of Medical Sciences, New Delhi, India*
*[19]University of Milan-bicocca, Desio, Italy*
*[20]University of Cam-pania Luigi Vanvitelli, Department of Internal And Experimental Medicine Magrassi-lanzara, Naples, Italy*
*[21]University of Perugia, Perugia, Italy*
*[22]University of Palermo, Palermo, Italy*
*[23]University of Milan, Milan, Italy*
*[24]Departement of Pathology, Queen Elizabeth University Hospital, Glasgow, UK*
*[25]University of Chicago, Chicago, USA*
*[26]Royal Derby Hospital, Derby, UK*
*[27]The Luton & Dunstable University Hospital, Gastroenterology, Luton, UK*
*[28]Department of Internal Medicine, Tampere University Hospital, Tampere, Finland*
*[29]Milton Keynes University Hospital, Milton Keynes, Uk*
*[30]Institute of Food Sciences-cnr, Immuno-morphology, Avellino, Italy*
*[31]Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[32]Vu University Medical Center, Dept. of Gastroenterology, Amsterdam, The Netherlands*
*[33]Department of Experimental and Clinical Sciences, University of Brescia, Brescia, Italy*
*[34]Gastroenterology & Liver Disease Research Institute, Celiac Disease, Tehran, Iran*
*[35]University of Medicine And Pharmacy, Iasi, Romania*
*[36]Sheffield Teaching Hospitals, Gastroenterology, Sheffield, Uk*
*[37]Department of Medical And Surgical Sciences, University of Bologna Bologna, Italy*

[38]*Medical College of Wisconsin, Milwaukee, USA*
[39]*Weill Cornell Medicine, New York, USA*
[40]*Massey University, Palmerston North, New Zealand*
[41]*Dudley Group Nhs Foundation Trust, Dudley, UK*
[42]*University of Aberdeen, Aberdeen, UK*
[43]*College of Medical, Veterinary & Life Sciences, University of Glasgow, UK*

***Background/Aims:*** The morphological damages of intestinal Villi's/ Crypt architecture by the intraepithelial lymphocytic infiltration (IEL) in non-coeliac gluten sensitivity (NCGS) have been much less quantified compared to coeliac disease (CD). Morphological changes including IEL infiltration in intestinal villi's and Crypt architecture were measured in gluten induced enteropathies aiming to differentiate between NCGS, CD and controls.

***Materials and Methods:*** The study was designed at the International Meeting on Digestive Pathology, Bucharest 2017. Investigators from 22 centres, 9 countries of 4 continents, recruited CD patients with Marsh 0-II histology (n=261), NCGS (n=175), and 262 controls and used one agreed protocol to analyse the small bowel mucosa in well-oriented duodenal biopsies. Demographic and serological data were also collected.

***Results:*** Participant countries consisted of Australia (20), Finland (20), India (25), Iran (37), Italy (239), Romania (10), Turkey (30), UK (166) and USA (151). The villus height was significantly shorter in NCGS compared to control (p<0.001), the difference was significant even when the analysis limited to Marsh 0. Conversely, the villus height of NCGS was significantly longer than that in CD [600 (IQR: 400-705) vs 427 (IQR: 348-569), p<0.001], the result was unchanged when analysis was limited to Marsh I-II [500 (IQR:410-629) vs 423 (IQR:349-574, p=0.009). The median Crypt depth was significantly increased in NCGS group compared to controls [296 (IQR: 205 -300) vs 222 (IQR: 158-294), p<0.001) and it was similar to CD group [269 (IQR: 182-322), p=0.822]. Interestingly NCGS with Marsh 0, still had significantly increased crypts depth compared to controls (p<0.001). The crypt depth value was similar in Marsh I-II for both NCGS and CD groups [273 (IQR: 180-296) vs 269 (IQR: 180-324), p=0.822)]. In addition, the ratio of villus height to crypt depth was significantly lower in NCGS compared to controls (p<0.001), the difference was significant even when the analysis was limited to Marsh 0 (p<0.001). In contrast, the ratio of villus height /Crypt Depth in NCGS was significantly higher than that in CD (p=0.009), the result was still significant when analysis was limited to Marsh I-II (p=0.046). The median IEL density was significantly higher 23/100EC in NCGS group compared to 14 in controls (p<0.001) and lower than that in CD group 40/100EC (p<0.001). When comparison was restricted to Marsh 0, NCGS still had significantly higher IEL density than controls (p<0.001). Comparing IEL densities in Marsh I/II NGGS to Marsh I/II CD groups showed similar values (p=0.055). When the analyses were restricted to Marsh 0, the IEL density cut off scored 79% sensitivity and 55% specificity at 14/100EC for NCGS with 0.71 (95% CI: 0.64- 0.77, p<0.001) area under curve. Similar analysis limited to Marsh I-II showed a cut-off of 25/100EC to diagnose CD and NCGS (together) from controls, with 95% sensitivity, 86% specificity and 0.94 (95% CI: 0.93-0.96, p<0.001) area under the curve.

***Conclusion:*** Morphometric assessment of intestinal mucosa of NCGS patients showed a range of subtle abnormalities even when the histology is reported as Marsh 0 or normal. Comparing Marsh 0 of NCGS with controls, revealed the former have significantly higher IEL density, increased crypt depth, shorter villous height and decreased villous/crypt ratio. This global morphometric assessment brings novel insight into the Marsh 0 histology spectrum that can improve the NCGS diagnostic yield as an additional biomarker.

***Keywords:*** Non-coeliac gluten sensitivity, coeliac disease, gluten enteropathy

---

***PP-306***

## *Comparison evaluation between non alcoholic fatty liver disease scoring panels with fibroscan*

**Fariborz Mansour-ghanaei, Saba Fakhrieh Asl, Afshin Shafaghi, Farahnaz Joukar, Sara Dorosti**

*Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran*

***Background/Aims:*** According to the high prevalence of non alcoholic fatty liver disease (NAFLD) and its procedures complications, it is necessary to have an non invasive, cost- benefit, convenient way to evaluate these patients. In this way, the aim of this study was to evaluate 11 scorig systems in NAFLD patients and the comparison with fibroscan's results.it helps psytions to have better clinical decision, diagnosis and treatment of these patients. In this study, 122 patient with sonography determined NAFLD were undergone fibroscan.

***Materials and Methods:*** 11 NAFLD scoring system were calculated in these patients. The results of 11 scoring system, by using spss 22 compared with fibroscan's results.

***Results:*** Comparison scoring systems with fibroscan's results, express that, 2 panel (APRI, FIB4) in segregation between group with and without advanced fibrosis were desirable (p value 0.03,0.005 sequencally).

***Conclusion:*** According to being non invase and cost benefit and available of these scoring systems, we suggest to use these panels to evaluate fibrosis in NAFLD patients.

***Keywords:*** Non alcoholic fatty liver disease, NAFLD, fibroscan, scoring system

---

***PP-307***

## *The role of walking in the level of colonoscopy preparation in patients referred to the endoscopy ward in razi hospital: The single-blinded clinical trial*

**Fariborz Mansour-ghanaei, Farahnaz Joukar, Gholamreza Rezamand, Alireza Samadi**

*Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran*

***Background/Aims:*** Colon cleaning is essential for the safe and accurate inspection of mucosa and early diagnosis of lesions, but course of preparation is one of the most difficult aspects of colonoscopy. This study was conducted to compare the degree of colon preparations between walking and non walking groups in patients who referred to the colonoscopy department of Razi hospital.

***Materials and Methods:*** This one-blind randomized clinical trial was conducted on eligible individuals who had colonoscopy procedures. The patient randomly allocated into two groups of intervention (walking) and non intervention (without walking). After completion of the colonoscopy, data were collected with a specific questionnaire, then the number of steps and distance traveled was registered using the smart wristband of the Xiaomi model of the Mi Band 2 model. Intestinal cleansing was determined using the Boston criteria. The clinical trial code for this study is IS-RCTN32724024.

***Results:*** In this study, 262 patients were studied in two groups of intervention (walking) and non intervention (without walking). There was no meaningful relationship between walking and better bowel cleansing in these groups. But when we divided individuals regardless of our intervention, only on the basis of walking, the difference in bowel preparedness was significant in the two groups so that in the group of more than 6900 steps, intestinal clearing was better than the group under 6900 ($p<0.005$). There was no relationship between sex, walking, body mass index, diarrhea, constipation, history of gastrointestinal surgery and history of gynecological surgery with intestinal cleansing. But there was a relationship between age, smoking and history of chronic diseases with intestinal cleansing ($p<0.005$).

***Conclusion:*** It seems that conducting such researches with greater volume and even different exercises would help to improve the conventional methods of bowel preparation for colonoscopy.

***Keywords:*** Walking, preparation, colonoscopy

***PP-308***

## *Seroprevalence study of celiac disease in patients with ibs symptoms referred to razi hospital clinic in rasht, 2017*

**Fariborz Mansour-ghanaei[1], Afshin Shafaghi[2], Farahnaz Joukar[3], Mohamadreza Mahjoub Jalali[2]**

*[1]Caspian Digestive Disease Research Center (cddrc), Rasht, Iran*
*[2]Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran*
*[3]Gi Cancer Screening and Prevention Research Center (gcsprc), Rasht, Iran*

***Background/Aims:*** Celiac disease is a common cause of malabsorption and this disease definitely diagnoised with abnormalities of narrow gastrointestinal biopsy and response to symptoms and histological changes of gluten removal. One of the serologic studies of celiac is Anti TTG study. Since IBS symptoms are common in the community and given the fact that the main food of the people of Gilan is rice and a number of patients with celiac are unknown and mistakenly diagnosed as IBS,a study was conducted to evaluate the prevalence of celiac disease in this group of patients (IBS).

***Materials and Methods:*** In a cross-sectional study, 475 patients aged 20-70 years with IBS symptoms (according to ROME IV criteria) referred to Razi Hospitals Clinic of Rasht in the year 96 were selected.Blood samples were collected from all the patients. An upper endoscopy and Five samples of duodenal biopsy were collected from patients with positive serum sample. Statistical analyzes were performed.

***Results:*** In our study 475 people participated. (225 male and 250 female) The mean age of participants was 25.12±42.40. Anti TTG was positive in 31 patients (6.5%), Anti TTG IgA in 14 (2.9%) and Anti TTG IgG in 19 (4%) patients were positive. Of the patients with serum positive test, 6 cases had positive celiac disease in pathological endoscopy.

***Conclusion:*** It is better to perform the required celiac examinations for all patients referring with IBS symptoms even those patients without Diarrhea and celiac symptoms. our study showed that the seroprevalence of celiac disease in patients with IBS symptoms is equal to 6.5% and definitive diagnosis of this disease in seropositive people is 31.6%.

***Keywords:*** Celiac, IBS, Anti TTG

---

***PP-309***

## *Efficacy and tolerability of fourteen-day sequential quadruple regimen: pantoprazole, bismuth, amoxicillin, metronidazole and or furazolidone as first-line therapy for eradication of helicobacter pylori: A randomized, double-blind clinical trial*

**Fariborz Mansour-ghanaei[1], Alireza Samadi[2], Farahnaz Joukar[3], Hafez Tirgar Fakheri[2], Soheil Hassanipour[2], Gholamreza Rezamand[2], Mohammad Fathalipour[2]**

*[1]Gi Cancer Screening and Prevention Research Center (gcsprc), Rasht, Iran*
*[2]Gastrointestinal and Liver Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran*
*[3]Caspian Digestive Disease Research Center (cddrc), Rasht, Iran*

***Background/Aims:*** The optimal pharmacological regimen for eradication of *Helicobacter pylori* (*H. pylori*) has been investigated for many years. This study aimed to evaluate the efficacy and tolerability of bismuth-based quadruple therapy (B-QT) and a modified sequential therapy (ST) regimens in eradication of *H. pylori*.

***Materials and Methods:*** A randomized, double-blind trial conducted on 344 patients. Patients with *H. pylori* infection and without a history of previous treatment were randomized to receive 14-day B-QT (bismuth subcitrate 240 mg, pantoprazole

40 mg, amoxicillin 1000 mg, and clarithromycin 500 mg twice daily) or 14-day ST (bismuth subcitrate 240 mg, pantoprazole 40 mg, amoxicillin 1000 mg, and metronidazole 500 mg twice daily for seven days followed by bismuth subcitrate 240 mg, pantoprazole 40 mg, amoxicillin 1000 mg, and furazolidone 100 mg twice daily for additional seven days). Drug adverse effects were assessed during the study. *H. pylori* eradication was determined eight weeks after the end of treatment using $^{14}$C-urea breath test.

***Results:*** Based on per-protocol and intention-to-treat, the eradication rate was significantly higher ($p<0.05$) in the B-QT regimen 91.9% (95% CI; 88.1-94.0) and 90.2% (95% CI; 86.3-92.9), respectively compared to the ST regimen 80.8% (95% CI; 76.6-84.9) and 78.1% (95% CI; 73.7-82.4), respectively. The severity of vomiting and loss of appetite were significantly higher in ST regimen ($p<0.05$).

***Conclusion:*** The B-QT regimen was more effective and safe than the ST regimen. Conclusively, it is suggested to assess the efficacy and safety of this regimen in longer studies, larger population, and in other communities.

***Keywords:*** *Helicobacter pylori*, eradication, furazolidone, sequential therapy, adverse effects

---

***PP-310***

## *Physician readiness to implement a treat-to-target strategy in inflammatory bowel disease patient management in the Russian Federation, Kazakhstan, and Belarus: Site assessment survey results from the intent study*

**Diana Abdulganieva[1], Elena Belousova[2], Elena Chashkova[3], Irina Gubonina[4], Jamilya Kaibullayeva[5], Oleg Knyazev[6], Kanyshay Mamyrbaeva[7], Yuriy Marakhovskiy[8], Oksana Shchukina[9], Marina Shapina[10], On Behalf of Intent Investigators[11]**

*[1]Republican Clinical Hospital Ministry of Health Republic of Tatarstan, Tatarstan*
*[2]Moscow Regional Research and Clinical Institute N.a. M. F. Vladimirskiy, Russia*
*[3]Irkutsk Scientific Center For Surgery and Traumatology*
*[4]Military Medical Academy N.a. S.kirov*
*[5]Scientific-research Institute of Cardiology and Internal Diseases*
*[6]Moscow Clinical Scientific Center*
*[7]Takeda Russia, Russia*
*[8]Republic Gastroenterology Center*
*[9]St. Petersburg "City Clinical Hospital #31", Russia*
*[10]State Scientific Center of Coloproctology*
*[11]Russia, Kazakhstan, Belarus*

***Background/Aims:*** A treat-to-target (T2T) strategy, based on regular disease assessment aims to achieve clinical and endoscopic remission and is a recognized approach in the management of inflammatory bowel disease (IBD). The objective of this analysis was to assess the readiness to use T2T strategy by investigators participating in the INTENT study.

***Materials and Methods:*** INTENT [NCT03532932] is an international, multicentre, non-interventional study conducted in 31 sites (Russia, Kazakhstan and Belarus) and aims to evaluate disease control and treatment patterns in patients with moderate-to-severe IBD in real-world practice. A questionnaire with 23 questions related to description of medical practice, awareness of and barriers to a T2T strategy, was completed by INTENT investigators at site initiation.

***Results:*** Questionnaires were completed by 31 gastroenterologists and coloproctologists (9 [29%] from IBD-specialized centres and 22 from non-specialized centres). All respondents were familiar with the T2T concept and agreed (either fully or partially) with the T2T definition. The majority of physicians consider clinical and endoscopic remission as the optimal treatment target for ulcerative colitis (UC) and Crohn's disease (CD) (93.5% and 96.8%, respectively). All physicians from IBD-specialized sites and 81.8% of physicians from non-specialized sites regularly monitor disease activity (every 3-6-12 months and at

exacerbations); 18.2% of physicians from non-specialized sites assess UC and CD patients only at exacerbations. Objective methods for assessing the degree of disease activity are presented in Table 1. In IBD-specialized centres, the most frequent barriers to implementing a T2T strategy were (UC and CD, respectively): resistant disease course (88.9%, 100%); limited access to some medications (66.7%, 66.7%); patient non-compliance of their treatment regimen (55.6%, 55.6%). Physicians from non-specialized sites cited limited access to some drugs as the most frequent barrier to T2T utilization (90.9% in UC, 81.8% in CD) followed by resistant disease course (54.5%, 86.4%) and patient noncompliance of their treatment regimen (54.5%, 50.0%).

***Conclusion:*** Most of the surveyed physicians declared readiness to implement a T2T strategy in their clinical practice. Approximately, one-fifth of physicians from non-IBD-specialized sites do not regularly assess IBD disease activity. The most frequent barriers to T2T implementation are a resistant disease course, limited access to some medications and patient non-compliance.

***Keywords:*** Inflammatory bowel disease, treat-to-target strategy, physician survey

***Table 1.*** Frequency of utilizing objective assessment procedures in UC and CD

| | UC | | CD | |
|---|---|---|---|---|
| Objective assessment procedure | IBD-specialized sites (n=9) | Non-specialized sites (n=22) | IBD-specialized sites (n=9) | Non-specialized sites (n=22) |
| Endoscopy | 100% | 90.9% | 100% | 90.4% |
| Biomarker evaluation | 100% | 90.9% | 100% | 86.3% |
| Histology | 55.5% | 77.3% | 55.5% | 72.7% |
| X-ray | 44.4% | 40.9% | 55.5% | 45.5% |
| Computer tomography | 44.4% | 31.8% | 55.8% | 45.4% |
| Ultrasound | 33.3% | 31.8% | 44.4% | 27.2% |
| Magnetic resonance imaging | 33.3% | 22.7% | 66.6% | 36.3% |

***PP-311***

## *Physical examination requirement with integrated information theory*

**Arda Ellidokuz[1], Asim Leblebici[2], Ayse Akpinar[1], Beyza Kurt[3], Aydın Demiriz[4], Ender Ellidokuz[5]**

*[1]Ege University School of Medicine, İzmir, Turkey*
*[2]Department of Translational Oncology, Dokuz Eylül University, Institute of Health Sciences, İzmir, Turkey*
*[3]Uludağ University School of Electronic Engineering, Bursa, Turkey*
*[4]Genbil Software, İstanbul, Turkey*
*[5]Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

***Background/Aims:*** Physical examination is known to be highly effective in reaching the diagnosis. It was shown that the effectiveness of physical examination and anamnesis in general medical clinics was 78% in the correct diagnosis. As a result of rapid development and increased sensitivity in laboratory tests and imaging methods, physicians and students tend to decrease the use of physical examination methods in clinical decision making. The aim of this study is to calculate the phi value of this network structure in order to show mathematically how a systemic consciousness change will be caused by the lack of physical examination in diagnostic methods using PyPhi package of Python.

***Materials and Methods:*** In order to mathematically model "Integrated Information Theory" consciousness theory, the level of consciousness of the system called Phi (Φ) is calculated from the network structure of the brain. For this purpose, the phi score of the model established over the Phyton based PyPhi package can be calculated. Nowadays, the purpose of this study is to determine the frequency of physical examination by using questionnaire and to determine the results of the model.

***Results:*** As a result of the survey among gastroenterologist and internal medicine specialist, the use of physical examination was found to be low especially in young physicians ($R^2$=0.4974, p<0.001). In the model where physical examination, patient history, and laboratory and imaging evidence are together, the Φ value is 1, which means that the consistency of the model between components is higher than the other model. In the second model (excluding physical examination), the Φ value was calculated as 0.34 and the compliance value decreased by one third.

***Conclusion:*** As a result, it is necessary to ensure their participation in this process by explaining to young physicians that the lack of physical examination, especially in medical education, will cause great cognitive loss to the medical processes.

***Keywords:*** Physical examination, IIT (Integrated information theory), PyPhi

---

***PP-312***

## *Esophagitis dissecans superficialis in patients diagnosed with pemphigus vulgaris*

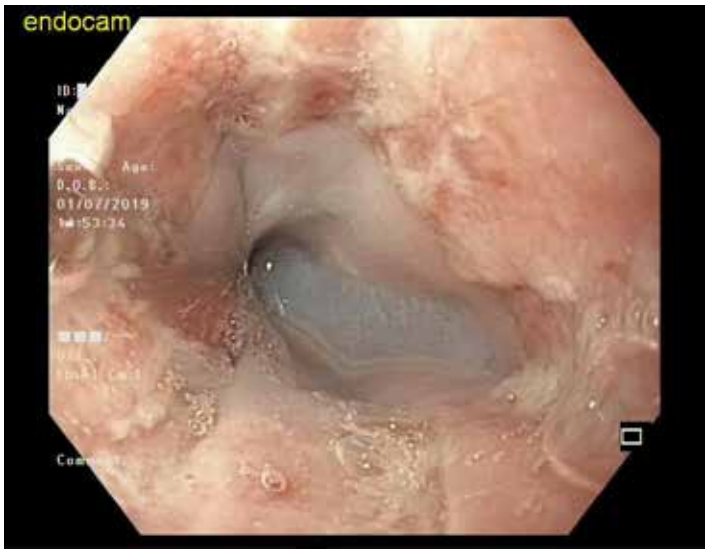
**Ferit Çelik, Fatih Tekin, Ali Şenkaya, Seymur Aslanov, A. Murat Buyruk, Nalan Gülşen Ünal, Ömer Özütemiz**

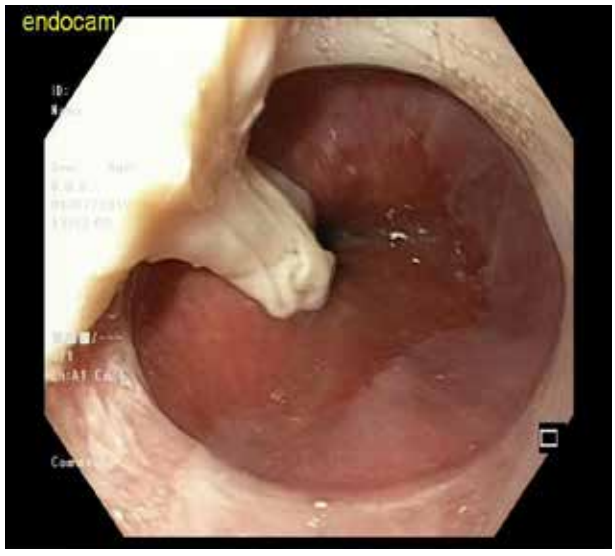
*Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*

***Introduction:*** Esophagitis Dissecans Superficialis (EDS) is a rare formation classically characterized by abrasion of esophageal mucosa. In endoscopy, it is a table characterized by scratched whitish mucosa (with or without hemorrhage), vertical and peripheral ruptures as well as long, linear mucosal fractures. It may originate from bisphosphonates, non-steroidal antiinflammatory drugs, some chemical agents, celiac disease, hot drinks, autoimmune bullous dermatosis or idiopathic reasons. The term of Pemphigus histologically describes the auto-immunologic disease characterized by intraepidermal bullae companied by acantholysis and affecting skin and mucous membranes. Pemphigus vulgaris (PV) is the most frequently seen clinic type of pemphigus group diseases. Clinically, it is characterized by erythematous, tender, easily rupturing bullae on normal skin and mucous membranes. It may emerge with oropharynx, larynx, esophagus, urogenital and rectal mucosa involvement. Since, PV cases with esophageal involvement may remain asymptomatic, it is thought that it may occur more frequently than reported in literature. In symptomatic cases and dysphagia appear as the most frequent symptoms. In vast majority of PV patients esophageal involvement should be kept in mind whether there is any symptom or not (5). Here we present our patient with pemphigus vulgaris, for whom Esophagitis Dissecans Superficialis was diagnosed later on upper GIS endoscopy.

***Case***: Subject is a 24-year old male lacking any known diseases. Approximately 5 months ago he was diagnosed with pemphigus vulgaris by dermatology department due to intraoral bullous lesions and sporadic erythematous lesions on the body. Methylprednisolone and pantoprazole were initiated due to pemphigus vulgaris. While drug treatment is in progress patient has referred to emergency department due to retrosternal chest pain and hematemesis. The values scrutinized in emergency department were found as follows; hemoglobin: 16.6 mg/dl, hematocrit: 48%, platelet: 165 10^3/µL. In endoscopy, total esophagus was hyperemic and there were sporadic linear lesions. Particularly, it was observed on distal esophagus that mucosa has been scratched as a white layer (Figure 1-3). Mucosal membrane moved when aerated. After 24-hour follow-up, hematocric decline did not occur, hematemesis was not defined; so, pantaprazole 40 mg 2x1 and per oral sucralfate 4x10 ml therapy prescribed and patient was discharged.

***Conclusion:*** In two thirds of PV patients mucous membranes are affected. Any place having epithelial layer with squamous cell can be affected; however, despite oral lesions are seen in many patients, esophageal involvement is rather less frequently reported. The first PV patient diagnosed with esophageal involvement was first reported by Raque et al. in 1970. In PV cases esophageal involvement results in a significant morbidity; however, the prevalence of esophageal involvement is not known. As a possible reason, since endoscopy cannot be applied to majority of patients, a number of esophageal involvements could not be established. In a study Galloro et al. reported the evidence of endoscopic PV in 19 of 28 PV patients (68%) that were subjected to upper GIS endoscopy. Awareness about endoscopic features of EDS may cause more number of cases to be established and may help us to reveal it's real prevalence.




***PP-313***

## *Budesonide efficacy in the treatment of autoimmune hepatitis: Is it better in treatment naive patients?*

**Vibor Sesa, Maja Sremac, Mislav Jelakovic, Ivana Knezevic Stromar, Marina Premuzic, Zeljko Krznaric, Rajko Ostojic**

*University Hospital Center Zagreb, Zagreb*

***Background/Aims:*** Autoimmune hepatitis (AIH) is a rare chronic inflammatory liver disease usually effectively treated with steroids and azathioprine. However, there is a significant number of patients who are refractory or have adverse effects to standard therapy. Budesonide is an orally administered synthetic corticosteroid that undergoes extensive first-pass hepatic metabolism thus leading to reduced incidence of corticosteroid-related adverse effects. At this moment it is unclear whether there is a difference in its efficacy in treatment experienced and treatment naive patients. The aim of the study was to evaluate the efficacy of budesonide in the treatment of AIH in patients refractory or intolerant to standard therapy and to compare its efficacy in treatment experienced and treatment naive patients.

***Materials and Methods:*** Medical records from patients diagnosed with or treated for AIH in our referral center in period from June 2017 to February 2019 were reviewed retrospectively to identify the ones who started treatment with budesonide. We obtained basic clinical and laboratory data including aspartate transaminase (AST), alanine transaminase (ALT) and immunoglobulin G (IgG) at the induction of budesonide treatment and after two months.

***Results:*** A total of ten patients were identified. All patients were female, with a median age of 58 years. The indications for budesonide use were; significant corticosteroid-related adverse effects in five patients, intolerance to azathioprine and induction of remission in three newly diagnosed, treatment naive patients. All patients were treated in dose of 9 mg daily. After two months of therapy 6 patients had a complete biochemical response defined as sustained normalization of the aminotransferase and IgG levels, 3 patients had more than a 50% reduction in pretreatment aminotransferase and decreased IgG levels and only one patient had less than a 50% reduction in aminotransferase levels and unchanged levels of IgG. Baseline AST, ALT and IgG levels were similar in both groups (228.25±133.28 vs. 98.50±36.06, 270.33±205 vs.187.6±89.1, and 17.2±7.9vs.27.9±3.7, respectively $p>0.05$). After two months of treatment, statistically significant biochemical response based on ALT and IgG levels was reached only in treatment naïve patients (187.6±89.1vs.40±14.7, and 27.9±3.7vs.18±3.05; respectively, $p<0.05$), while AST levels also decreased, but the difference did not reach statistical significance (98.50±36.06 vs 30.33±5.51, $p>0.05$).

***Conclusion:*** According to our data budesonide is a successful treatment option for the induction of remission in non cirrhotic AIH patients refractory or intolerant to standard therapy as well as treatment naive patients, with a low rate of adverse effects. Budesonide also might have a better effect in induction of AIH remission in treatment naive patients when compared to treatment experienced patients.

***Keywords:*** Autoimmune hepatitis, budesonid

---

***PP-314***

## *Prevalence of intestinal metaplasia in adult patients with dyspepsia*

**Seyed Mohammad Valizadeh Toosi[1], Seyede Fateme Sanayifar[2], Reza Ali Mohammadpour[3], Somayeh Sheidaie[4]**

*[1]Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[2]Mazandaran University of Medical Sciences School of Medicine, Sari, Iran*
*[3]Department of Biostatistics, Mazandaran University of Medical Sciences School of Health, Sari, Iran*
*[4]Department of Pathology, Mazandaran University of Medical Sciences School of Medicine, Sari, Iran*

***Background/Aims:*** Intestinal metaplasia(IM) which is defined as the replacement of normal gastric mucosa by metaplastic epithelial cells, have been described as premalignant gastric lesion in which case early detection can be used to determine the patients at a high risk of developing gastric cancer. The aim of our study was detecting of intestinal metaplasia in dyspeptic patient who candidate for upper GI endoscopy.

***Materials and Methods:*** In this cross sectional study, 602 consecutive patients with dyspeptic signs and symptoms and have indication for upper GI endoscopy were included the study. (Indication for upper GI endoscopy was according to international guidelines for dyspeptic patients with alarming symptoms). During endoscopy, gastric mapping for all patients was done for determining the presence or absence of intestinal metaplasia. For gastric mapping, five biopsy samples from each patients have taken: including one biopsy from lesser curvature of antrum and one biopsy from greater curvature of antrum, one biopsy from lesser and greater curvature of body and one biopsy from incisora angularis. All histologic samples were examined and reported by one pathologist expert in GI pathology according to updated Sydney classification. In addition, *HP* infection was evaluated by rapid urease test (RUT) and by Giemsa staining of pathologic specimens. Demographic data and endoscopic and pathologic findings of all patients were recorded. Data were analyzed using SPSS software version 16.

***Results:*** In our study 38.7% of patients were male and 61.3% were female. The mean age of patients were 46+-15 years. The overall prevalence of intestinal metaplasia was 21.7%. Distribution of IM in stomach was 15.1% in antrum, 4.3% in body and 2.3% in antrum and body. The prevalence of IM in age group of 10 to 30 years was less than 5% and in patients in Age group above 30 years was 25%. Overall prevalence of HP infection in dyspeptic patients was 68.8%. 71% of patients with IM were HP positive. The prevalence of IM in patients with normal upper endoscopy were 16.5% (43/261), and in patients with gastric ulcer 36.5% (30/82), duodenal ulcer 17% (7/41) and erosive gastritis 23.2% (49/211). The prevalence of IM in HP positive patients were 22.6% (93/412) and HP negative patients were 20% (38/188). History of smoking, opium, alcohol, aspirin, NSAID and family history of gastric cancer were not accompanied with increase prevalence of IM in dyspeptic patients.

***Conclusion:*** In our study, a quarter to one-fifth of patients with dyspepsia have IM. Two thirds of patients with IM were infected with Helicobacter pylori. Sixteen percent of patients with dyspepsia and normal upper GI endoscopy had IM. The results of our study indicate that performing gastric mapping in patients with dyspepsia candidate for endoscopy can lead to discovery of pre-cancerous tissue changes. This can lead to a proper clinical approach to these patients. Larger epidemiologic studies will be helpful to confirm our findings and to help guide endoscopic screening toward specific groups at risk for gastric cancer.

***Keywords:*** Dyspepsia, gastric mapping, intestinal metaplasia

***PP-315***

## *Dermatological manifestations in IBD*

**Rahaoui Anass, Abdelwaly Khaled, Camelia Berhilli, Lagdali Nawal, Benelbarhdadi Imane, Ajana Fatima Zahra**

*Department of Gastroenterology, Medicine C, Chu Ibn Sina- University Souissi Med V- Rabat*

***Background/Aims:*** These dermatological leasions are not necessarily dependent on the evolution of IBD and can even appear before the diagnosis. Through this work we report our experience by determining the frequency of dermatological manifestations and to identify the risk related to the different treatment.

***Materials and Methods:*** This is a retrospective study of all patients treated for IBD and dermatological leasions, we excluded from this study any perineal involvement.

***Results:*** Out of a total of 1367 patients followed for IBD, the dermatological involvement was present at 70 patients. There are 43 women and 27 men, the average age is 33 (12,63), there are 50 cases of Crohns and 20 cases of UC. Psoriasis is the most common (20 cases) including a case of paradoxical reaction to infliximab followed by erythema nodosum (12 cases). the other lesions are distributed as follows: pyoderma gangrenosum (7 cases), 5 cases of autoimmune dermatological leasions (a case of pemphigus, 2 cases of vitiligo, 2 cases of Lichen planus), 6 cases of allergic reactions including one case of dress syndrome histologically confirmed, 8 cases of oral aphtosis, 2 cases of neutrophilic bullous dermatosis, one case of Sweet syndrome, 2 cases of cutaneous cancer in patients with a history of azathiopirine (1 case of large toe melanoma and a case of basal cell carcinoma), finally 6 cases of nonspecific rash. The treatment was symptomatic or specific with a direct cessation of the drug and swicth to another therapeutic agent in case of allergic or paradoxical reaction. The cutaneous cancer cases have benefited from surgery +/- Radio-chemotherapy.

***Conclusion:*** Cutaneous involvement in IBD is highly varied requiring close cooperation between gastroenterologists and dermatologists. Short, medium and long term skin monitoring is essential to detect cutaneous side effects, especially cutaneous cancer in patients on immunosuppressants.

***Keywords:*** Dermatological -IBD-Manifestations

---

***PP-316***

## *Investigation of helicobacter pylori virulance factors and immune response in precancerous lesions*

**Arzu Tiftikci[1], Elif Merve Aydin[2], Tevriz Dilan Demir[2], Sinem Öktem Okullu[3], Bahattin Çiçek[1], Fatma Tokat[4], Umit İnce[4], Nurdan Tözün[1], Ayca Sayi Yazgan[2]**

*[1]Department of Gastroenterology, Acıbadem University, İstanbul, Turkey*
*[2] İstanbul Technical University, İstanbul, Turkey*
*[3]Department of Microbiology, Acıbadem University School of Medicine, İstanbul, Turkey*
*[4]Department of Pathology, Acıbadem University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** We aimed to investigate the characteristics of *H. pylori* virulence factor and immune response in patients with gastric pathology.

***Materials and Methods:*** This study included in total 32 patients and 15 control subjects. Routine histopathological examination was done tfrom antrum and corpus biopsies plus three tissue samples were taken from the antrum of the stomach during the endoscopy. DNA was extracted from one of the received tissue sample and RNA was isolated

from the other; the third biopsy specimens were used during Hematoxylin & Eosin histological staining to determine the pathogenesis of the patients gastric tissue and *H.pylori*. Isolated DNA samples were used in conventional PCR studies to detect ten different *H. pylori* virulence genes. cDNA was synthesized from RNAs isolated from the tissues of the patients and used to investigate the expression of FOXP3, IFN-γ and PD-L1 at the mRNA level by quantitative Real Time PCR.

***Results:*** Characterization of 10 different virulence factors during conventional PCR studies was performed in 24 patients known to be *H.pylori* positive according to the pathology report. Virulence factors determined as a result of conventional PCR studies were evaluated in two different patient groups. The most common virulence factors in patients with active chronic gastritis; *napA, hpaA* and *cagA*. The most common virulence factors in patients with intestinal metaplasia; *cagA, vacA* and *hpaA*. According to the results of the comparison with the control group, the cytokine of the Th1 cell group, IFN-γ, was increased and the expression levels of the transcription factor FOXP3, the marker of Treg cell groups, decreased in patients with precancerous lesions. PD-L1 expression level was higher in precancerous lesions.

***Conclusion:*** In this study, the characterization of *Helicobacter pylori* virulence factors in gastric precancerous lesions and the investigation of immune responses in the host were carried out in detail for the first time.

***Keywords:*** *H. pylori*, virulence, precancerous

---

***PP-317***

## *Characterization of helicobacter pylori infection in children and adolescent*

**Trini Fragoso Arbelo**[1]

[1]*Hospital Ped. Univ.borras Marfan, Facultadde Medicina Manuel Fajardo*
[2]*Hosp Ped Univ"jmmarquez, Facultad Finlay Albarran*

***Background/Aims:*** Helicobacter pylori (Hp) infection is common in developing countries, playing an important role in peptic acid disease. Clinical and epidemiological characteristics of the Hp infection as well as frequency are described.

***Materials and Methods:*** Over a period of 3 years, patients and/or parents were surveyed for symptoms and a complete physical examination was performed. Prior signed informed consent, upper gastrointestinal endoscopy (UGE) and two biopsies of antral mucosa were performed, one by the rapid urease test and another by histopathology study (Hematoxilina-eosina and Giemsa) to determine the degree of gastritis and Hp presence according to Sydney System. Infection was demonstrated by one of the two methods.

***Results:*** 196 patients were selected between 7-18 years (mean 14.6) out of 471 (41.6%) total; 53% females, 59.7% between 10-14 years. By UGE: 49.5% antral eritematose gastritis, 36.8% antral nodular gastritis and 13.7% duodenal ulcer with the gastritis association. Eepigastrium pain 85.2%, acidity 46.4%, vomiting 21%, nauseas 16.3%. They all uffered from varying degrees of chronic gastritis: mild, 34.7%; moderate, 37.2% and severe, 28.1%. Hp was present by rapid urease test in 83.2% and in 93.4% by histology, and by both methods in 150 (76.5%). Presence of gastric lymph nodes (41.8%).

***Conclusion:*** Hp infection is frequent and causes inflammatory gastric and duodenal lesions in children and adolescents, particularly antral nodular gastritis. It was found an important association in Hp diagnosis results with both methods. All patients with lymph nodes and chronic gastritis should be followed by invasive methods due to the important association between the Hp infection and Lymphoma B associated to mucosa (MALT).

***Keywords:*** Helicobacter pylori, acid peptic disease, chronic gastritis, peptic ulcer

***PP-318***

## *Detection of HLA-DQ2/DQ8 alleles in cuban children with celiac disease*

**Trini Fragoso Arbelo**[1]

[1]*Hospital Ped. Univ.borras Marfan, Facultadde Medicina Manuel Fajardo*
[2]*Department of Genetic Molecular, University Hospital "hermanos Ameijeiras", Havana, Cuba*
[3]*Paediatric University Hospital "juan M. Márquez", Anatomopathology Service, Havana, Cuba.*
[4]*National Gastroenterology Institute, Anatomopathology Service and Pediatric Section, Havana, Cub*

***Background/Aims:*** Recent studies have more clearly defined the structural basis for gluten intolerance in celiac disease (CD), also the associated genetic basis, immunology, and protein chemistry. CD is a polygenic disease. The human major histocompatibility complex molecules (HLA) DQ2 and DQ8 are essential genetic factors for the development of CD. To confirm the diagnosis of CD using HLA-DQ2/DQ8 alleles detection.

***Materials and Methods:*** Prospective study (2003-2014) including 22 children; mean age 8.8 years, range 1.5-15y. CD diagnosis: suggestive symptoms (chronic diarrhea, abdominal distension, malnutrition, constipation, short stature, type-1-DM, aphthous stomatitis, Dermatitis herpetiformis); positive serology (method: IgG/IgA immunochromatography) for tissue transglutaminase autoantibodies (tTGab); and suggestive jejunal biopsy (villous atrophy, crypt hyperplasia, and intraepithelial lymphocytosis). Confirmation of CD diagnosis: detection by PCR-SSP of HLA-DQ2/DQ8.

***Results:*** 6 (27.3%) patients had chronic diarrhea; 3 (13.6%), short stature; 2 (11.1%), abdominal distension; 3 (16.6%), malnutrition; 1 (5.5%), constipation and malnutrition; 1 (5.5%), type-1-DM; and 2 (9.1%), aphtous stomatitis; 1 (4.5%), Autism; 2 (9.1%) familial screening; 1 (4.5%), herpetiform dermatitis. Serology for tTGab: 18 (100%) were positive. Jejunal biopsy: Total villous atrophy was observed in 1 patient; sub-total, in 6; partial, in 10; no atrophy, in 1, associated with an increased intraepithelial lymphocytosis and crypt hyperplasia; and not performed, in 4, (Downs syndrome, Autism, Dermatitis herpetiformis). HLA-DQ2/DQ8 detection: 17 HLA positive (77.7%); 15 (88.2%) DQ2 and 2 (11.8%) DQ8. Associated conditions: 29.7% had one; 2, Downs syndrome; 1, type-1-diabetes mellitus; 1, epilepsy and arthritis. CD diagnosis: 17 (77.2%) confirmed: 13 (71.4%) confirmed CDs and 4 (18.2%) potential CDs; 5 (22.8%) HLA- had other enteropathies.

***Conclusion:*** Gluten-free diet is for life; since CD misdiagnosis occurs (clinic and biopsy are not pathognomonic, false positive serologies are frequent), HLA is useful to confirm CD diagnosis in patients with dubious response to treatment thus ruling out other enteropathies. When CD diagnosis is confirmed with HLA detection, a second biopsy is not needed and can be followed up through serology, a noninvasive procedure.

***Keywords:*** Celiac disease, HLA, children

---

***PP-319***

## *Sequential therapy for helicobacter pylori infection in children and adolescentes*

**Trini Fragoso Arbelo**[1]

[1]*Paediatric University Hospital "borrás Marfan", Gastroenterology and Nutrition Service E. Havana, Cuba*
[2]*National Gastroenterology Institute. Anatomopathology Service, Havana, Cuba.*
[3]*Paediatric University Hospital "juan M. Márquez", Anatomopathology Service, Havana, Cuba*

***Background/Aims:*** The response to conventional treatments of *Helicobacter pylori* infection shows an average of low eradication and sequential therapy reports better results in adults, but there are few studies in pediatrics. To verify the efficacy of sequential therapy of active chronic antral gastritis in the eradication of the infection.

***Materials and Methods:*** It is an observational, prospective, descriptive study of 39 patients of both sexes, between 11 and 18 years, attended for 2 years with chronic active antral gastritis of different degrees, being associated in six with duodenal ulcer by Helicobacter pylori positive, confirmed by rapid urease test. or histopathology of antral mucosa (Hematoxylin eosin-Giemsa). Prior informed consent received TS: 5 days with Omeprazole+Amoxicillin, followed by 5 days with Omeprazole+Clarithromycin+Metronidazole to Group I and with Tetracycline to Group II. Three of group I and six of group II were excluded by abandonment. Adverse effects were recorded. Twelve weeks after the treatment, endoscopic control biopsies were performed. It was considered eradicated when both tests were negative.

***Results:*** The mean age of group I (n=19) was 13.3 years and that of group II (n=11) was 13.9 years. There was eradication 13/19 of group I (68.5%) and 8/11 (72.7%) of group II. In group I eight were treated with triple therapy in a previous year eradicating 50% and in group II only one that eradicated.

***Conclusion:*** Sequential therapy proved to be an acceptable alternative and showed equal efficacy in both groups without influencing the previous treatment in eradication. To the failures, rescue therapy with other drugs and schemes must be carried out according to the results of the countrys resistance.

***Keywords:*** Chronic gastritis in pediatric; *Helicobacter pylori* infection; sequential therapy

---

***PP-320***

## *Dyspepsia score and eradication rates of helicobacter pylori infection among dyspeptic patients seen at a Nigerian tertiary institution*

**Lukman O. Abdulkareem[1], Augustine O. Uhunmwangho[1], Musa M. Borodo[2]**

*[1]University of Abuja Teaching Hospital, Abuja, Nigeria*
*[2]Department of Internal Medicine, Aminu Kano Teaching Hospital, Kano, Nigeria*

***Background/Aims:*** Helicobacter pylori (H. pylori) infection has been linked to the aetiology of a number of gastroduodenal disorders. The 'Test and Treat Strategy", using non-invasive diagnostic methods, has been recommended for the management of dyspeptic patients in regions of high H. pylori prevalence. Due to paucity of data on this strategy in our environment, this study was designed to determine the eradication rates of H.pylori following first line triple regimen as well as assessing the dyspepsia scores before and after treatment.

***Materials and Methods:*** 160 consenting adults presenting with dyspepsia, without alarm features, were consecutively enrolled. H.pylori infection was diagnosed by the $^{14}$C-urea breath test (UBT). Infected patients were treated using first line triple regimen consisting of Rabeprazole-20mg, Amoxicillin-1g and Clarithromycin-500mg taken twice daily for two weeks. Post-treatment UBT was done four weeks after completing treatment to determine H.pylori eradication. The Modified Glasgow Dyspepsia Severity Score (MGDSS) was used to assess symptom severity at initial evaluation and four weeks after completing treatment. Patients were followed up at 3, 7 and 14 days to assess drug compliance and side effects.

***Results:*** The mean age of the 160 patients studied was 35.7+8.0 years. Male:female ratio was 1:1.5. UBT was positive in 129 (80.6%) of the 160 patients enrolled, out of which 118 (91.5%) completed the treatment and 11 were lost to follow up. At post-treatment evaluation, the eradication rate was 78.8% on per-protocol and 72.1% on intention-to-treat analyses. The mean post-treatment MGDSS reduced significantly compared to the mean pre-treatment MGDSS in those in whom H.pylori was eradicated as well as those in whom it was not ($p<0.0001$). The mean post-treatment MGDSS was significantly lower among those who eradicated H.pylori compared to those who did not (1.8+1.4 vs 2.6+1.6, $p=0.019$). The commonest side effects reported were altered/ bitter taste in the mouth (22.0%), diarrhoea (7.6%) and nausea (3.4%). The side effects were however, not severe enough to warrant discontinuation of the drugs in any of the patients.

***Conclusion:*** The H.pylori eradication rate observed in this study was high, though not up to the globally accepted rate of>90%. Emphasis should be placed on post-treatment test to confirm H.pylori eradication or otherwise, because resolution of symptoms may be observed whether the infection is eradicated or not.

***Keywords:*** Helicobacter, eradication, dyspepsia

***PP-321***

## *A rare complication of celiac disease*

**Jelena Jovetic, Brigita Smolovic, Ranko Lazovic, Filip Vukmirovic**

*Clinical Center of Montenegro, Podgorica, Montenegro*

***Background/Aims:*** Celiac disease is associated with intestinal lymphoma but it is listed as a risk factor for development of adenocarcinoma of small intestine. Celiac disease is very common with prevalence in general population of 0.7% to 2% or 1: 100 to 1: 300 inhabitants which makes it one of the most common chronic diseases. It is most commonly associated with small intestine lymphoma, but it is also known that it is a risk factor for the development of small intestine adenocarcinoma. The most common adenocarcinoma of the small intestine occurs in the duodenum (55%), then in jejunum (30%) and the lowest in the ileum (15%). Our work shows a patient with adenocarcinoma of jejunum having undiagnosed celiac disease for many years. The aim of this presentation is to indicate the importance of early diagnostics and careful clinical monitoring of patients with celiac disease in order to avoid its complications.

***Materials and Methods:*** Case study presentation.

***Results***: A 43-year-old female patient for ten years has occasional digestive complaints such as pain in the epigastrium followed by nausea, loss of appetite and bloating. She was treated symptomatically without diagnostics until last year when serology is done, then endoscopy with biopsies that pointed to celiac disease. Without enhancement on ordered diet, soon with a palpable mass in the abdomen. Magnetic enterography indicated an infiltrative change of the jejunum with the infiltration of surrounding structures, and the final pathohistological finding post operatively adenocarcinoma of the small intestine. Chemotherapy has been started recently.

***Conclusion:*** Adenocarcinoma of small intestine in patients with celiac disease is usually discovered in advanced stage with poor prognostic outcomes and five-year survival rate is 30-40%.Celiac disease is with many faces and should be suspected especially when there is no typical symptoms of it in order to discover complications sooner. It is important when there is no clinical enhancement on a gluten free the diet to think about complications.

***Keywords:*** Celiac disease, Adenocarcinoma of small intestine, complication

***PP-322***

## *Efficacy of pinaverium bromide in the treatment of Irritable Bowel Syndrome (IBS): A meta-analysis*

**Serhat Bor[1], Philippe Lehert[2], Adriana Chalbaud[3], Jan Tack[4]**

*[1]Division of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*
*[2]Department of Statistics, School of Economics, Louvain, Belgium; Department of Community Health Faculty of Medicine, University of Melbourne, Australia*
*[3]Abbott Product Operations Ag, Allschwil, Switzerland*
*[4]Department of Clinical and Experimental Medicine, University of Leuven, Targid; Division of Gastroenterology, University of Leuven, University Hospitals Leuven, Leuven, Belgium*

***Background/Aims:*** Current treatment for Irritable Bowel Syndrome (IBS) primarily targets the main symptoms associated with the condition. Selective calcium channel blockers such as pinaverium bromide (PNV) has a favorable antispasmodic effect on gastrointestinal smooth muscle and can relieve the major symptoms of IBS. There is no meta-analysis comparing the efficacy of PNV vs placebo. The efficacy of PNV compared with placebo for the treatment of IBS was assessed.

***Materials and Methods:*** A random effects model meta-analysis of placebo-controlled trials of PNV for IBS treatment was conducted and all trials for which raw data were available were included, without restriction of language, covering the period from January 1st, 1970 to October 22nd, 2018. Efficacy of treatment was evaluated by patient's symptoms improvement or resolution on the period between the first and last drug intake. The effect of PNV vs placebo was expressed as standardized mean difference (SMD) and 95% CI. Odds Ratio (OR) and Number Needed to Treat (NNT) were also calculated.

***Results:*** Eight studies were included in the meta-analysis. Main analysis was based on mean-scores of symptoms in each study. A beneficial effect was found in the PNV treatment group with a positive SMD of 0.64 (95%CI 0.45-0.82, p<0.0001). No significant heterogeneity was found ($I^2$ score=16.3%, $\chi 2$=8.36, df=7, p=0.30). The consistency of this effect was checked through meta-regression analysis. No significant difference was found by publication year (p=0.598), by gender (p=0.55), age (p=0.87), methodological quality score (p=0.087), or sample size (p=0.9389). Visual inspection of funnel plot did not reveal any publication bias in particular for non-published non-positive studies. Alternative measurements of effect size were conducted: the odds ratio was OR=3.43 [2.00, 5.88], p<0.001), the absolute risk difference ARD was 0.26 ([0.16,0.35], p<0.001) and the corresponding NNT was 3.84 [2.85, 17.8].

***Conclusion:*** PNV for the treatment of IBS symptoms was more effective than placebo, irrespective of patients' age or gender, or studies' publication year, sample size or methodological quality score. NNT was one of the lowest within studies comparing antispasmodics vs placebo.

***Keywords:*** Irritable Bowel Syndrome, pinaverium bromide, efficacy

---

***PP-323***

## *Peptic ulcrers and their correlation with pre-existing conditions other factors!*

**Zohra Aijaz Ali, Farheen Hashmi**

*The Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Peptic ulcers are open sores that develop on the inside lining of your stomach and upper part of the small intestine. They occur when acid in the digestive tract eats away the inner most mucosal lining of the stomach or small intestine. People with peptic ulcers may suffer from abdominal pain, nausea, vomiting, constipation and dark or tarry stools; these

symptoms are aggravated by spicy food or an empty stomach. Smoking and drinking alcohol further erode the mucus lining making the heeling process more difficult.

***Materials and Methods:*** We carried out a survey in which we analyzed the files of about 30 patients to collect information about gastric diseases specifically ulcers (gastric, esophageal and duodenal).Below, is an analysis of the data collected and displayed in the Performa.

***Results:*** We collected data from 28 patients, to find a correlation between their existing conditions/ addictions, age, gender and Body Mass Index (BMI). Additionally, through the survey conducted, it was found that though the percentage of male and female patients who suffered from peptic ulcers was the same, the percentage of male patients who suffered from gastritis was higher. It was found that male patients often ate more junk food and more male patients suffered from alcohol and tobacco addition than the female patients. About 60% of the patients in our survey were older than 50 and had recurrences of H.Pylori infection and symptoms affiliated with ulcers. Some patients consulted a doctor after a few months or a year of persistent gastric pain and burning in the gut, and had already developed mild gastritis by then. Furthermore, the proportion of young patients(<25) who suffered from ulcers, was a mere 7% and often had a high BMI or suffered from other associated diseases. Out of the 28 samples that we had examined, only 17 patients were tested for the bacterium H.Pylori using the hydrogen breath test. Out of these 82% (14 patients) with ulcers or gastritis tested positive for H.Pylori while a meager 18% tested negative for it. Helicobacter Pylori causes antral inflammation and damages the inner lining of the stomach, allowing stomach acid to come in contact with the inner mucosal lining of the stomach and duodenum causing ulcers. It also leads to increased secretion of stomach acid. This further increases the chances of ulcers, which is clearly shown by the graph above. The BMI, a ratio of a person's weight and height, of patients with peptic ulcers was calculated. Our study shows that 64% of the patients who developed peptic ulcers were obese or overweight. Studies have shown that obesity may be a leading cause in developing gastric ulcers as it promotes inflammation in the gut. More recent discoveries also confirm that inflammation is present in cells that form the lining of the gut. This is important as this inflammation may lead to weakness of gut cells and make them prone to ulcer formation. The lining of the gut appears to be leakier in over weight and obese individuals, which promotes entry of bacteria and harmful pathogens like the bacterium H.Pylori that leads to ulcer formation. Only 32% of the patients had a normal BMI, and only 4% (1 patient) was underweight. Furthermore, a correlation can be seen between the various associated diseases and addictions a patient has, with peptic ulcers. Out of the 28 patient files studied about 50% (17patients) had two or more of the conditions or addictions as shown in the graph. About 32% of the patients suffering from ulcers or gastritis had addictions. Smoking and alcohol increase the amount of stomach acid, lead to slow healing of ulcers and increase the chances of a recurrence of ulcers especially in people infected by H.Pylori. Furthermore medications like NSAIDS (Non-Steroidal Anti Inflammatory Drugs) that are taken for inflammation and pain, are prescribed to patients with arthritis and are often given as off the rack pain killers, increase stomach acidity, increasing the chances of developing ulcers.

***Conclusion:*** Peptic ulcers are mainly caused by an increase of stomach acid. The factors mentioned above on their own may not cause peptic ulcers, but combined with other factors like the bacterium Helicobacter Pylori, they identify as risk factors that increase the chances of peptic ulcers.

***Keywords:*** Peptic ulcer, helicobterium pylori

---

***PP-324***

## *A case of primary neurofibroma arising from the common bile duct*

**Takayoshi Murakami, Yoshimi Fujimoto, Tsuyoshi Terada, Koji Miura, Yasutaka Kudou, Taiji Tohyama, Takuya Nishina, Nobutaka Murashima, Fumio Nakayama, Toshihiko Okuyama, Takamasa Matsumoto**

*Kurashiki Medical Center, Okayama, Japan*

***Introduction:*** Biliary neurofibromas are extremely rare. Almost of them occur subsequent to biliary trauma during cholecystectomy, except as part of manifestation of neurofibromatosis type 1 (NF1). We herein report a rare case of an asymptomatic solitary primary neurofibroma of the common bile duct (CBD).

***Case:*** A 46-year-old woman visited our hospital for further investigation of abnormalities on a screening upper gastrointestinal series. She had no history of biliary operation and no family history of a hereditary disease. Esophagogastroduodenoscopy revealed a submucosal tumor-like mass of the duodenal bulb. Computed tomography showed a well-demarcated, homogenous, low-density, 3.6cm mass adjoining to the duodenal bulb and the head of pancreas. The tumor was enhanced weakly and gradually. Magnetic resonance imaging showed that the mass was heterogenously hypointense on T2-weighted images. Endoscopic ultrasonography-guided fine needle aspiration (EUS-FNA) cytology showed spindle-shaped cells in loose clumps. Immunohistostaining was positive for S-100, partially positive for CD34 and c-kit, but negative for alpha-smooth muscle actin (ASMA). Based on these findings, she was preoperatively diagnosed with duodenal mesenchymal tumor, and we planned partial resection of the duodenum. At laparotomy, we found a 3.8×3.7 cm whitish elastic hard tumor in the hepatoduodenal ligament, which was arisen from the CBD with extraluminal growth. Because complete resection of the tumor from the CBD was not feasible, we performed resection of the extrahepatic bile duct and a Roux-en-Y hepaticojejunostomy. Histopathological findings of the resected tumor showed overgrowth of spindle-shaped cells and an increase in collagen fibers through the whole layer of the CBD. The tumor cells appeared immunohistochemically positive for S-100, partially positive for CD34, but negative for c-kit and ASMA. The final histopathological diagnosis was a neurofibroma. Postoperative course was uneventful.

***Conclusion:*** To date, only six cases of biliary neurofibroma without NF1 have been reported in the English literature. The present case is the first reported asymptomatic case. Preoperative diagnosis could not be achieved in all cases including the present one. It relies on histological examination. In such an asymptomatic case, neurogenic biliary tumor should be considered despite its rarity. It is helpful to distinguish the benign biliary neurofibroma from other malignancies by EUS-FNA.

***Keywords:*** Neurofibroma, biliary tumor, EUS-FNA

---

***PP-325***

## *Glasgow-blatchford score (GBS), rockall score (RS) and AIMS65 score (AIMS65): What is the most appropriate score for predicting the prognosis of upper gastrointestinal bleeding?*

**Youssef Thiyfa, Sara Abouelhak, Mohamed Tahiri Joutei Hassani, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Ibn Rochd*

***Background/Aims:*** Various clinical scores, including the Glasgow-Blatchford Score (GBS), the Clinical Rockall Score (RSC) and the AIMS65 score (AIMS65) were developed to predict prognosis in patients with upper gastrointestinal bleeding. The purpose of this study is to evaluate the AIMS65 score as a predictor factor of mortality in patients hospitalized for upper gastrointestinal bleeding (UGIB), and to compare it with other established scores, in order to determine the more appropriate one in terms of prognosis.

***Materials and Methods:*** This is a retrospective study, involving 348 patients admitted to the department for upper gastrointestinal bleeding. The Glasgow-Blatchford (GBS), Clinical Rockall Score(CRS) and AIMS65 (AIMS65) scores were calculated for all patients and correlated to the need for blood transfusion or intervention (endoscopic or surgical), and mortality. Data processing was performed using MedCalc 19.0.4 software.

***Results:*** The median age of our patients was 56.5 years [15-95], with a slight male predominance (53.2%). The causes of upper gastrointestinal bleeding (UGIB) were dominated by esophageal or gastric variceal rupture in 46.83% and peptic ulcer in 40.8% then esophagitis in 5.75% and neoplasia in 3%. The median duration of hospitalization was 4 days [1-30 days], 59.5% of our patients required a blood transfusion, 54.31% required an endoscopic procedure (ligation, injection of cyanoacrylate, adrenaline injection, hemostatic clips, argon plasma coagulation) and 3.45% surgery. The 30-day mortality rate directly related to UGIB was 7.8%. The Blatchford (SBG) score was equivalent to the AIMS65 score for predicting the need for transfusion (areas under the curve receiver operating characteristic (AUC ROC) 0.598 VS 0.541, p=NS) but higher than the

pre-endoscopic Rockall score (0.5 p<0.01). In term of the need for intervention (endoscopic or surgical), the GBS and Clinical Rockall scores were equivalent (AUROCs, 0.67 and 0.65 respectively; p=NS) and higher than the AIMS65 score (AUROC, 0.58;=0.02). To predict mortality at 30 days, the AIMS65 score was superior to both GBS (AUROC, 0.95 VS 0.79, p<0.01) and pre-endoscopic Rockall score (0.69, p<0.01).

***Conclusion:*** The AIMS65 score was the most accurate predictor of 30-day mortality in hospitalized patients for UGIB and GBS equivalent to predict transfusion requirements. However, it was below the GBS and RCS to predict the need for intervention.

***Keywords:*** Upper gastrointestinal bleeding, pronostic scores, AIMS65, glasgow-blatchford score GBS, rockall score RS

---

***PP-326***

## *Clinical and pathogenetic substantiation of serological diagnostic methods helicobacter pylori in childhood*

**Alfia Aminova[1], Aleftina Akatova[2], Zarnigar Gumbatova[1], Olga Vozgoment[2], Gulnoza Abdullayev[3]**

*[1]First Moscow State Medical University Named After I. M. Sechenov of Ministry of Healthcare of The Russian Federation*
*[2]Federal State Budgetary Educational Institution of Higher Professional Education "perm State Humanitarian-pedagogical University" (perm)*
*[3]Mc "medkvadrat»*

***Background/Aims:*** The most urgent problem in gastroenterology is the diagnosis of H. pylori in the population. The aim of the study is to provide gastroenterologists with a method of diagnosis of H. pylori in young children, which will develop a new look at the infection of young children.

***Materials and Methods:*** 850 children aged 2-17 years with dyspepsia, heartburn, abdominal pain, bad breath, constipation, diarrhea with a diagnosis of chronic gastritis, duodenitis, eosophagitis were examined. As a diagnostic standard H. pylori was used latex test-immunochromatographic rapid test for qualitative identification of Helicobacter pylori antigens in human excrement.

***Results:*** The most uninformative diagnostic method was ELISA for IgM antibodies to H. pylori (32%). However, it was found that children under the age of 6 years serological method of determining H. pylori-specific IgM has a maximum sensitivity (97%), while specific IgG to H. pylori was not detected at this age. In modern scientific literature there are no data on the sensitivity of serological method for determining specific IgM to H. pylori in young children. We have established a high sensitivity (97%) of the serological method for determining H. pylori-specific IgM in children aged 2-6 years.

***Conclusion:*** Serological method of identification of specific IgM antibodies to H. pylori is highly sensitive for young children. All epidemiological studies based on serological methods and determination of specific IgG to H. pylori were erroneous.

***Keywords:*** H.pylori, latex test, serological, ELISA

---

***PP-327***

## *Injection of cyanoacrylate for the treatment of gastric varices bleeding*

**Sara Abouelhak, Mohamed Tahiri Joutei Hassani, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Ibn Rochd*

***Background/Aims:*** Endoscopic hemostasis with N-2-Butyl Cyanoacrylate (N2BC) injection has become the most effective method for the treatment of upper gastro intestinal bleeding from gastric varices. The aim of our study is to evaluate the efficacy and safety of gastric varices injection with cyanoacrylate.

***Materials and Methods:*** A prospective study between mai 2015 and juillet 2019, all patients with gastric variceal bleeding was hospitalized and underwent endoscopic treatment. Success was defined as an absence of recurrent bleeding after the cyanoacrylate injection, and safety was evaluated by looking for side effects.

***Results:*** Forty Cyanoacrylate injections were done for 30 patients (15 women and 15 men, the sex ratio was 0.76), the mean age was 47 (ranging from 15 to 80 years old). All patients had portal hypertension, 23 due to intra-hepatique cause (76,6%), 6 patients had extra-hepatic portal hypertension, and unidentified cause for one patient. All patients was admitted to the emergency unit for upper gastrointestinal bleeding (hematemesis and melena in 80%), 25% was hemodynamically unstable. The hemoglobin mean rate was 7.2g/dL (3.8-9.8). All patients received early vaso-actif treatment. The esophagogastroduodenoscopy (EGD) was done in less than 24 hours after the hemorrhage. We found GOV 2 in 75%, GOV 2 and IGV1 in 12.55%, IGV in 12,55% Commercially flexible sclerotherapy injectors with a 6 mm/21-guage needle were used for gastric variceal injection. N2BC was mixed with Lipiodol at the same proportion (1cc-1cc) with the average of 2 injections spot in every session. All patients achieved immediate hemostasis so the treatment was successful in 100%, without any complications (epigastric discomfort, fever, embolism, thrombosis) and no endoscope was damaged. The re-bleeding was noticed in 6 patients, from new gastric varices. Tow patients died from uncontrolled bleeding away from the N2BC injection.

***Conclusion:*** The study confirm the efficacy of and safety of cyanoacrylate injection for the treatment and second prophylaxis of gastric varices bleeding To confirm it efficacy in the primary prophylaxis, another study is needed.

***Keywords:*** Varicel bleeding, injection of cyanoacrylate, endoscopic hemostasis

---

***PP-328***

## *Phenotypic analysis of patients with inflammatory bowel disease: 23 year data of a center in a South American country*

**Cristian Camilo Páez Cancelado[1], Rafael García Duperly[1], Jong Hyuk Park[2], Rocio Del Pilar López Panqueva[1], Eduardo Emilio Londoño Schimmer[1], Adriana Margarita María Rey Rubiano[1], Jorge Enrique Padrón Mercado[1], Marcela Mejía Arango[1], Belén Elvira Mendoza De Molano[1]**

*[1]Fundación Santa Fe De Bogotá, Bogotá, Colombia*
*[2]Universidad De Los Andes, Bogotá, Colombia*

***Background/Aims:*** Inflammatory Bowel Disease (IBD) includes Ulcerative Colitis (UC) and Crohn Disease (CD). In the last decade, there have been introduced therapeutic changes that have revolutionized the pharmacologic and surgical management of patients with IBD. The incidence of UC and CD has been increasing in Latin America but the exact prevalence is unknown. Our objective is to describe the demographic characteristics, clinical and therapeutic aspects of the IBD in patients that have presented in the University Hospital Fundación Santa Fe de Bogotá (UH-FSFB), Colombia.

***Materials and Methods:*** Retrospective Descriptive Cohort Study. Clinical histories, pathology reports, and endoscopic results from our software HI-ISIS of the UH-FSFB and specialists' softwares between January 1996-February 2019 were recollected, stored in Excel and analyzed using IBM SPSS Statistics Visor. Patients with diagnosis of IBD were included. Patients with incomplete clinical histories were excluded.

***Results:*** From 398 patients included in this study, 72.1% had UC, 25.6% CD and 2.3% Indeterminate Colitis. The average age of diagnosis was 43.54 years (range: 12-91). In both patients with UC and CD there were smaller proportions of men than women (0.9:1 for UC and 0.7:1 for CD). Of the patients with UC, 46.3% had been hospitalized. 37.2% presented with proctitis, 23.8% left colitis and 39% with pancolitis. 13.5% had an asymptomatic clinical picture, 22.4% mild, 15.3% moderate, and 48.8% severe. 12.9% received biological therapy (BT). 24.3% of patients received a second line BT. 15% required surgical interventions (SI), of

which there were no mortalities. 27% who were receiving BT required SI. Of the patients with CD, 82.4% required hospitalization. 43.1% had an ileal, 9.8% colonic, 39.2% ileal-colonic, 0% isolated upper digestive and 21.6% perianal compromise. 34.3% had non-stenosing behavior, 49% stenosing and 16.7% penetrating. 44.1% of patients with CD received BT of which 40% required a second line BT. 55.9% required SI, of which 1 mortality was reported. 71.1% who were receiving BT required a SI.

***Conclusion:*** Our study contributes to the epidemiology and integral management required by patients with IBD in our environment. More studies are recommended that replicate our methodology in the population with IBD in both Colombia and Latin America.

***Keywords:*** Inflammatory bowel disease, Colombia, biological therapy

---

***PP-329***

## *IBD and pregnancy*

**Manal Mahmoudi, Nawal Lagdali, Imane Benelbarhdadi, Camelia Berhili, Mohamed Borahma, Fatima Zahra Ajana**

*Department of Gastroenterology Medicine C, In Ibn-sina University Hospital Mohamed V University at Souissi, Rabat*

***Background/Aims:*** The desire for pregnancy is a common concern in patients with IBD. The purpose of our study is to raise the impact of IBD and the different treatments on the course of pregnancy on the one hand and the influence of pregnancy on the natural history of IBD on the other.

***Materials and Methods:*** This is a retrospective study on IBD associated with a pregnancy stuck in our service.

***Results:*** Out of a total of 530 women of childbearing age followed for IBD, 55 pregnancies were reported; all pregnancies were spontaneous and not medically assisted. These are 40 cases of Crohns disease and 15 cases of ulcerative colitis. The average age was 26. At the time of conception, 77.41% of cases were in remission. 80% of pregnancies are completed with 4 cases of prematurity, 2 cases of pregnancy in progress and 3 cases of stopped pregnancy. About half of the patients were treated with corticosteroids or salicylates, the cases with anti-TNF stopped the treatment between 22 and 24 weeks of amenorrhea and the cases under Thiopurines stopped voluntarily the treatment. 5 patients had at least one push during their pregnancies. All patients underwent systematic rectoscopy from 36 weeks of amenorrhea. The low way was the rule outside a current or old localization of the ano-perineal disease; or for fear of an alteration of anal continence so 47% (10 cases) had a caesarean section.

***Conclusion:*** An IBD does not contraindicate a pregnancy. Outside the active phase and subject to good control of the disease, the course of pregnancy is identical to that of the general population, but requires collaboration between gynecologist and hepatogastroenterologist.

***Keywords:*** IBD-pregnancy- treatment

---

***PP-330***

## *Nitroglycerin significantly increases photodynamic response in rats with colon adenocarcinoma: Novel aspects in improving of photodynamic diagnosis*

**Aleksandr Khorovodov[1], Ekaterina Borisova[2], Nikita Navolokin[3], Ilana Agranovich[1], Andrey Terskov[1], Aysel Mamedova[1], Inna Blokhina[1], Maria Klimova[1], Oxana Semyachkina-glushkovskaya[1]**

*[1]Saratov State University, Saratov, Russia*
*[2]Institute of Electronics Bulgarian Academy of Sciences, Sofia, Bulgaria*
*[3]Saratov State Medical University Named After V. I. Razumovsky, Saratov, Russia*

***Background/Aims:*** Photodynamic diagnosis (PDD) is most promising tool for early detection of gastrointestinal (GI) cancer. Important notice, that PDD of GI is performed in patients with many other chronical diseases, including cardiovascular pathologies with common therapy by drugs of nitro group. It well known that nitric oxide (NO) play a crucial role in genesis of GI cancer. In this aspect it is interesting to understand how nitroglycerin (NG) as a donor of NO and a common drug of cardiovascular therapy affects PDD. Here we studied effects of NG on PDD of GI cancer in rats with stress-induced colon adenocarcinoma (CA) and investigated the role of NO-ergic in CA development.

***Materials and Methods:*** To induce GI cancer in rats, we used our original model of stress-induced highly heterogeneous adenocarcinoma including following groups: 1) the control healthy rats (Ctl); 2) the stress (Str, isolation) and 3) the nitrosamine (Nt, daily nitrosamine diet) groups during 9 months); 4) the stress+nitrosamines (Str+Nt). For the analysis of activity of NO-ergic system we studied: 1) the level of NO in GI tissues by spectrofluorimetric assay; 2) submucosal injection (SJ) of specific blocker of endothelial NOS-L-NIO, and specific blocker iNOS-L-NIL assessed by laser contrast speckle imaging; 5-ALA/PpIX-photodynamic effects before and after SJ of NG – donor of NO.

***Results:*** Using pharmacological tests, we obtained high microvascular response to L-NIL but not to L-NIO in rats with CA compared with the rats from Ctr/Str/Nt groups. The mucosal level of NO in colon tissues was a higher in rats with CA vs. Ctr/Str/Nt groups. The mucosal NO levels were also high in Str and in Nt groups vs Ctr group. However, these changes were a 1.3-fold and 1.5-fold greater in rats with CA vs. Str and Nt groups. Interesting note, that NG significantly increased photodynamic effects of 5-ALA/PpIX in rats with CA. So, fluorescent signal from the injured mucosa was a 4.5-fold greater after SJ of NG vs. the single treatment with 5-ALA/PpIX.

***Conclusion:*** Thus, mucosal injuries induced by Str, Nt and Str+Nt are characterized by a high production of mucosal NO that was more pronounced in rats with CA compared with Str and Nt groups. These changes in NO mucosal level in rats with CA was associated with significant increase in microvascular sensitivity to pharmacological modulation of iNOS but not eNOS as well as with significantly increased photodynamic effects by NG.This work was supported by Grant of Russian Science Foundation № 18-15-00139.

***Keywords:*** Colon adenocarcinoma, photodynamic diagnosis, nitroglycerin

---

***PP-331***

## *Barrett's esophagus; single center results*

**Arzu Tiftikci[1], Bahattin Çiçek[1], Murat Saruç[1], Hakan Ümit Önal[1], Gürhan Şişman[1], Cem Aygün[1], Süha Göksel[2], Atakand Yeşil[3], Nurdan Tözün[1]**

*[1]Department of Gastroenterology, Acıbadem University School of Medicine, İstanbul, Turkey*
*[2]Department of Pathology, Acıbadem Maslak Hospital, İstanbul, Turkey*
*[3]Department of Gastroenterology, Acıbadem Taksim Hospital, İstanbul, Turkey*

***Background/Aims:*** Barrett's esophagus and esophageal adenocarcinoma that develops on this background are common in the western population and the incidence of esophageal adenocarcinoma is increasing gradually. Although general knowledge is; Barrett's esophagus is seen less in our country there were not enough data. We aimed to discuss the patients diagnosed with Barrett's esophagus with upper GIS endoscopies and biopsy results in our hospital.

***Materials and Methods:*** Between January 2010-september 2018 all the upper GI endoscopies done in the Acibadem Maslak Hospital, retrospectively evaluated. Histopathologically aproved Barrett's patient evaluated in detailed. Both long sement and short segment Barrett's evaluated. Treatment options discussed in detail.

***Results:*** Between January 2010-September 2018, upper GIS endoscopy were performed for total 10404 patients in Endoscopy Unit of Acıbadem Maslak Hospital. In 143 (1.37%) of these patients, both endoscopic appearance and pathological examination were consistent with Barrett's esophagus. 123 patients with Barrett's esophagus were Turkish citizen and 20 patients were for-

eign nationals. 107 patients were male, 36 patients were female, the median age was 47 (min 19-max 77). 95 (66%) had short and 48 (34%) had long segment Barrett's esophagus. Adenocarcinoma in four patients and dysplasia in four patients were detected. Dysplasias were two indefinite, one low grade and one high grade. All patients with dysplasia or cancer were male. Mucosectomy and then radiofrequency ablation (RFA) were performed for one patient with high grade dysplasia and one patient with adenocarcinoma. Two patients were operated. RFA was performed due to persistent indefinite for dysplasia in long segment Barret's for the other patient. Also, it was learned that the lost to follow up patient developed liver metastasis after 2.5 years.

***Conclusion:*** Our cross-sectional study shows that although it is not randomized, Barrett's esophagus is also a health problem in our society. Early treatment may be possible with appropriate observation.

***Keywords:*** Barrett's, dysplasia, adenocarcinoma

---

***PP-332***

## *Ulcerative colitis and salazopyrine, salazopyrine still has a place in emerging countries*

**Khaled Abdelwali, Anass Rahaoui, Iman Benelbarhdadi, Mohamed Borahma, Nawal Lagdali, Camelia Berhili, Fz Ajana**

*CHU Ibn Sina, Rabat, Morocco*

***Background/Aims:*** Ulcerative colitis (UC) is a chronic inflammatory bowel disease that develops by exacerbations and remissions. Our study aims to define the outcome of patients with UC under Salazopyrine (SZP).

***Materials and Methods:*** It is a retrospective descriptive and analytical study including 117 patients who were under Salazopyrine listed on our records, over a period of 28 years [1990-2018].

***Results:*** Of a total of 506 patients with ulcerative colitis, 117 patients (23.12%) were treated with Salazopyrine. The average age of our patients is 35.5 years, 65 women and 52 men with a sex ratio of 0.82. The localization of UC was distal in 52.9%, pancolic in 26.4% and left sided in 20.52%.41.8% of patients (n=49) had extradigestive signs in the form of joint involvement, hence the choice of SZP as first-line treatment. 58, 1% of the patients (n=68) were given SZP for lack of means.62.4% (n=73) of our patients had a mild-to-moderate flare treated with SZP, 35.9% (n=42) of patients had severe falres controlled by systemic steroids, 29% (n=34) were maintained by Salazopyrine and 6.8% (n=8) were put on thiopurines because of corticodependence. These side effects were mainly dermatological and renal. Five skin lesions (Pruritus=2 cases, Lichen Syndrome=1, Melanoderma=2), 2 cases of renal failure and 1 case of vertigo.Eight patients (6.8%) were put on an immunosuppressants becauses of corticosteroid dependence or failure and 3.47% were operated (2 cases due to severe exacerbation, 2 cases for acute colitis). 8.7% of patients (n=10) had a significant adverse effect, leading to discontinuation of treatment in 9 of them.The outcome was good in 80.3% of cases, with complete clinical and endoscopic remission (Mayo score 1).

***Conclusion:*** This study concludes that Salazopyrine is the reference treatment for mild-to-moderate flare-ups in UC, especially in cases of associated joint nvolvement, keeping a place, especially in our Moroccan context.

***Keywords:*** Ulcerative colitis, salazopyrine

---

***PP-333***

## *Prevalence of inflammatory bowel diseases in a tertiary hospital: An eleven-year retrospective study*

**Jonathan Crisostomo**

*Metropolitan Medical Center, Manila, Philippines*

***Background/Aims:*** The rising trend in the prevalence of Inflammatory bowel diseases in Asia will have significant implications. While there is scarce data and paucity of update on its prevalence, local data can provide valuable information about the magnitude of the problem, as well as the means to estimate the burden of the disease and therefore aid in anticipating healthcare needs. This eleven-year retrospective study aims to investigate how prevalent is inflammatory bowel disease in our institution.

***Materials and Methods:*** This is a descriptive study determining the prevalence of IBD in Metropolitan Medical Center from 2007-2017. All included patients must have met the diagnostic criteria for IBD on the basis of clinical symptoms, endoscopic findings, and histopathology. Variables were collected for each diagnosed case. Prevalence rate was computed based on the total colonoscopies done during the eleven-year period.

***Results:*** The eleven-year prevalence rate of inflammatory bowel disease in our institution was 0.41%. Of the 53 patients diagnosed with inflammatory bowel disease, 75% had ulcerative colitis (UC) and 25% had Crohn's disease (CD). The mean age was 41 with preponderance of males in both types.

***Conclusion:*** Inflammatory bowel disease is becoming prevalent in Asia as with other neighboring countries while it was once thought as a disease of the Western world. UC still being more common than CD with both diseases affecting the male population predominantly.

***Keywords:*** inflammatory bowel disease, restrospective, ulcerative colitis, Crohn's disease

---

***PP-334***

## *Comparative study of a new selective rapid urease test with a validated test*

Boris Starostin

*SPb GBUZ City Polyclinic, Saint Petersburg, Russia*

***Background/Aims:*** Rapid urease tests are suggested as a first line tool for Helicobacter pylori (HP) detection following the latest guidelines the diagnosis and treatment of this infection. It is important to have a reliable test with high diagnostic characteristics that also meets the requirements of modern everyday practice, including fast results and their easy interpretation. Aim; to compare commercially available previously validated rapid urease test Biohit UFT300 Helicobacter pylori Quick Test (UFT 300) with the selective urease test AMA RUT Pro.

***Materials and Methods:*** To participate in this study, patients met the following inclusion criteria: had dyspeptic syndrome and no history of previous HP treatment. Biopsy specimens from each of the included patient were taken during the endoscopy procedure from the antrum and corpus and were then placed into UFT 300 and AMA RUT Pro. Additionally, other guideline-recommended diagnostic methods (UBT C-13-test and histology) were performed in cases of discrepancies between the two RUTs.

***Results:*** Totally 100 patients took part in the study: 57 male and 43 female. The average age was 53.3±11.5 years; weight was 65.7±10.1 kg and height – 167.3±9.9 cm. 42 patients had HP positive reaction on both tests, 47 were negative. 9 patients were positive by AMA RUT pro and negative by UFT 300. The reference UBT C13 confirmed high HP contamination in the 9 discrepancy cases. The average DOB was 25.4. In the remaining 1 discrepancy case AMA RUT Pro was negative while UFT 300 was positive. Histology examination confirmed the presence of HP infection.

***Conclusion:*** The two tests have both positive and negative results ready after 5 minutes and the specificity is comparable, however AMA RUT Pro has higher sensitivity and its results are easier to interpret.

***Keywords:*** Selective rapid urease test, helicobacter pylori, diagnosis

***PP-335***

## *Clinical and genetic evaluation of colon cancer in the young (≤30 years) in Ethiopia*

**Abdulsemed Mohammed[1], Amir Sultan[1], Jose D. Debes[2]**

*[1]Division of Gastroenterology & Hepatology, Addis Ababa University, Tikur Anbessa Hospital, Addis Ababa, Ethiopia*
*[2]University of Minnesota, Minnesota, USA*

***Background/Aims:*** Colon cancer has been reported to occur early in certain African regions, but understanding of genetic modifications leading to early disease is incomplete. We aimed to study cases of early colon cancer and genetic modifications leading to these tumors in Ethiopia.

***Materials and Methods:*** We evaluated all colon masses detected between 2015 and 2018 at Black Lion Hospital, Addis Ababa, Ethiopia which is the largest hospital in the country. Clinical, endoscopic and pathology descriptions were assessed for all cases, 30 years-old or younger. Subsets of pathology block-tissues were evaluated for genetic modifications via Multiplex Ligation-dependent Probe Amplification.

***Results:*** A total of 38 cases of colon cancer ages 30 or earlier were identified representing 13% of all cases of colon cancer in that period. Median age was 27 years, and 50% of individuals were females. The most common presenting symptom was rectal bleeding (57%) followed by change in bowel habit (22%). All but one sample were identified as adenocarcinoma, 78% were confined to the rectum, and 65% had distant metastasis or locally advanced disease at the time of diagnosis. We performed genetic analysis of biopsy tissue in a subset of 3 individuals: a) a 21-year-old male showed decreased copies of APC, increase in K-ras, v600f mutation in BRAF and decrease in MSH2 and MLH1; b) a 21-year-old female showed duplication of exon 4 APC, decrease in K-ras and altered copies of MSH-2; c) a 30-year-old female showed decreased copies of APC, decreased copies of K-ras and BRAF and decreased copies of MSH2 and MLH1.

***Conclusion:*** We report a high burden of early age colon cancer in Ethiopia. Most patients presented with rectal bleeding. Genetic analyses in a subset of patients show APC and K-ras alterations as well as modifications of mismatch repair pathways.

***Keywords:*** Colon cancer, young age, Ethiopia

---

***PP-336***

## *Complication biliary stenting in a patient with bile duct stricture*

**Husin Thamrin, Titong Sugihartono, Iswan Abbas Nusi, Poernomo Budi Setiawan, Herry Purbayu, Ulfa Kholili, Budi Widodo, Ummi Maimunah**

*Division of Gastroentero-Hepatology, Departement of Internal Medicine, Dr. Soetomo Hospital- School of Medicine, Universitas Airlangga, Surabaya, Indonesia*

***Introduction:*** The last decade, treatment of benign bile duct stricture with ERCP has become widely used. ERCP with multistenting procedure has been proven efficacy and safe treatment. This procedure has potential complication in approximately 5-10% cases. Stent migration is rare complication of ERCP with biliary stenting.

***Case:*** A male patient, 24 years old, come to emergency department with chief complaint epigastric pain at right upper quadrant abdomen and back. He also suffered malaise, nausea and vomiting. Physical examination: Yellowish sclera. Liver palpable 3 cm below costal arch. Laboratory examination: leukocyte 14200/mm$^3$, neutrophil 84.1%, direct bilirubin 23.68 mg/dL, total bilirubin 40.94 mg/dL. *Abdominal ultrasonography* showed dilatation of the intrahepatic duct, common bile duct (CBD) with multiple gallstone (largest size 0.7 cm). The MRCP showed stenosis distal common bile duct (CBD) with dilatation CBD and

hepatosplenomegaly. Patient was planned to do ERCP with spincterotomy and biliary stenting (on 6th day of admission). On the 8th day of admission, patient complained abdominal pain, hematemesis, melena, and fever.

***Conclusion:*** Migration of plastic stent is more frequent in benign as compared with malignant bile duct stricture. Stent migration can cause biliary obstruction, perforation CBD and bleeding. Angiography embolization and surgery are equally effective therapy for refractory bleeding. This patient was performed placement endoscopic clips as therapy to stop the bleeding.

***Keywords:*** Biliary, stenting, complication

---

**PP-337**

## *Duodenal telangiectasias presenting as unexplained iron deficiency anemia: Case series*

**Amir Sultan, Hiwot Belachew Ayele**

*Division of Gastroenterology & Hepatology, Addis Ababa University, Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia*

***Background/Aims:*** Telangiectasias are often cited as common causes of GI bleeding, however the recognition of such lesions might be overlooked in routine clinical practice. Here we present four cases with telangiectasia who presented with unexplained iron deficiency anemia seen in our center over four-year period (March 2015 to April 2019).

***Results:*** Case 1 is a 44-year-old male patient who came from the capital city. He was under medical care for 7 years for unexplained anemia with dyspepsia. He gives history of dark stools intermittently. He underwent endoscopy 5 years earlier and multiple ulcers were reported. On the current presentation he was evaluated at our hospital for anemia with hemoglobin of 6 gm/dL. He was transfused and underwent EGD and findings were multiple duodenal telangiectasia with gradual increment in numbers in the distal parts. The second case is a 45-year-old female patient who came from the southern part of the country for evaluation of anemia. Hematologist evaluation revealed Hgb of 10 gm/dL with microcytic changes. Upper GI endoscopy evaluation revealed multiple telangiectasia in the tongue, incisura, antrum and duodenum. Case 3 is a 55-year-old female patient who was evaluated for iron deficiency anemia with intermittent dark stools. No other problem identified in clinical examination. Endoscopy revealed multiple small sized telangiectasias with no active bleeding. The last case is a 42-year-old female patient with persistent iron deficiency anemia and chronic obstructive pulmonary disease. Prior the current presentation she has not undergone GI evaluation. She gives additional history of dark intermittent stools. Endoscopy showed a dominant telangiectasia in the first part of the duodenum with surrounding small sized telangiectasia. The patient had undergone similar evaluations for repeated drops in hemoglobin. Careful electrocoagulation was done for an episode with severe anemia. In all cases argon plasma coagulation was not done due to lack of the service in the country. The second and fourth cases were tried on hormonal replacement therapy with modest response. Two of the patients required transfusion therapy due to recurrent anemia.

***Conclusion:*** As noted in the first case, the lesions could be misinterpreted for ulcers especially if careful evaluation is not done. The cases demonstrate the importance of endoscopy evaluation in patients with unexplained anemia as the diagnosis helps avoid unnecessary diagnostic tests.

***Keywords:*** Ethiopia, telangiectasia, anemia

---

***PP-338***

## *Colonoscopic characterization of polyps: experience from a tertiary center in Addis Ababa, Ethiopia*

**Ahmed Adem Yesufe, Amir Sultan**

*Division of Gastroenterology & Hepatology, Addis Ababa University, Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia*

***Background/Aims:*** Colonic Polyps are common findings during colonoscopy with varying prevalence in the world. In most centers in the world adenoma detection rate is used as a quality control measure to assess quality of colonoscopy procedures. However, there is lack of data from sub Saharan Africa to strongly identify prevalence rate of polyps and adenomas. In addition, the practice of screening colonoscopy to identify premalignant lesions in the colon is not commonly employed in large parts of the developing world due to lack of data with regards to baseline prevalence and characterization of polyps.

***Materials and Methods:*** The study was conducted at the largest hospital in the country. Retrospective review of electronic data over a four-year period (November 2015– April 2019) was conducted to identify polyps. All colonoscopy procedure performed during the study period were retrieved from the database and evaluated. Subsequently procedures with report of polyps were assessed. Important variables like demographic information, location size and number of polyps, presenting symptom and indication was extracted from the database. Data was analyzed using SPSS (version 23).

***Results:*** A total of 1680 colonoscopies were done in the stated period. Among these 134 polyps were identified (8%). The majority of patients with polyps were male (70%). Mean age of patients with polyp was 49 (SD=16) with 21% of patients being under the age of 35. Majority of patients (60%) had single polyp where as 18% had three or more polyps. The commonest indication among patients with polyp was rectal bleeding (23%) followed by colon cancer evaluation (20%) abdominal pain (20%) and Anemia (9%). Regarding location of polyps most polyps were found in the distal colon (Rectum 32%, sigmoid colon 19% and descending colon 13%). Only 14% of patients had polyps only in the cecum and ascending colon. 15% of patients had multiple polyps located in different colonic segments.

***Conclusion:*** The finding of polyps is low in patients undergoing colonoscopy compared to the western literature. The majority of polyps were found in the rectosigmoid area with the commonest presentation being rectal bleeding which strengthens the value of sigmoidoscopy in detecting most problems. Further similar studies supplemented with histology correlation could help in building up an evidence base for adenoma detection rate as a marker for quality of colonoscopy procedures in Africa.

***Keywords:*** Ethiopia, polyps, colon cancer

***PP-339***

## *Helicobacter pylori infection and endoscopic findings in Bangladeshi dyspeptic patients*

**Madhusudan Saha[1], Nikhil Chandra Nath[2], Md Masudur Rahman Khan[3], Bimal Chandra Shil[4]**

*[1]North East Medical College, Sylhet, Bangladesh*
*[2]Cumilla Medical College, Cumilla, Bangladesh*
*[3]Bangabandhu Sheikh Mujib Medical University, Dakka, Bangladesh*
*[4]Sir Salimullah Medical College, Dakka, Bangladesh*

***Background/Aims:*** *Helicobacter pylori (H. pylori)* that infects about 90% people of developing countries causes dyspepsia and upper gastrointestinal lesions. The aim of this study was to detect the trend of *H. pylori* active infection and to investigate the endoscopic findings of *H. pylori* infected dyspeptic patient of Bangladesh.

***Materials and Methods:*** In a prospective study, three hundred sixty dyspeptic patients were recruited. Patients having alarm features, history of gastractomy and malignancy were excluded from this study. Active non invasive fecal antigen test for *H. pylori* was done of all patients. All selected patients are sent for upper gastrointestinal endoscopy.

***Results:*** *Helicobacter pylori* fecal antigen was found positive in 134 (37.2%) from 360 dyspeptic patients (251 males and 109 female, age 14-80 years). Among 360 patients 303 (80.16%) had macroscopic endoscopic mucosal lesions. *H. pylori* infected 114 patients had endoscopic mucosal abnormality. *H. pylori* non infected 189 patients also had mucosal lesion. Twenty patients (35.08%) had *H. pylori* infection among 57 having endoscopically normal looking mucosa.

***Conclusion:*** Our study revealed that active *H. pylori* infection rate is declining in Bangladesh. Risk of endoscopic mucosal lesion is likely expected by *H. pylori* active infection.

***Keywords:*** *Helicobacter pylori*, endoscopic mucosal lesion, fecal antigen for *H. pylori* active test

---

***PP-340***

## *Serum fetuin-a levels in patients with ulcerative colitis*

**Emircan Erecan[1], Elif Yorulmaz[2], Bilge Özdemir[3], Hatice Yorulmaz[4], Can Davutoğlu[2]**

*[1]Department of Internal Medicine, Bağcılar Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Gastroenterology, Bağcılar Training and Research Hospital, İstanbul, Turkey*
*[3]Department of Biochemistry, Bağcılar Training and Research Hospital, İstanbul, Turkey*
*[4]Haliç University School of Nursing, İstanbul, Turkey*

***Background/Aims:*** Fetuin-A acts as a negative acute phase protein that may also be involved in the pathogenesis of Ulcerative colitis (UC). The aim of this study was to investigate the relationship between serum Fetuin-A levels and biochemical parameters in patients with UC.

***Materials and Methods:*** This study included 40 healthy subjects and 40 patients with UC. Fetuin levels were measured by using ELISA. Haemoglobin, platelet, platelet width distribution (PDW), leukocyte, C-reactive protein (CRP), procalcitonin, total protein, albumin, and sedimentation values were analysed.

***Results:*** Haemoglobin, albumin, and fetuin levels of the control group increased compared to the patient group ($p<0.01$). Procalcitonin, C-reactive protein ($p<0.05$), leukocyte, and sedimentation values ($p<0.01$) were higher in the patient group. Fetuin-A had a negative correlation with sedimentation and leukocyte values ($p<0.05$).

***Conclusion:*** Fetuin-A level was found to be significantly lower in patients with UC compared to control group. There was a significant negative correlation between leukocyte and sedimentation values and fetuin-A. Fetuin-A may be a guide for the involvement site of disease and the inflammation level in UC.

***Keywords:*** Fetuin-A, inflammation, ulcerative colitis

---

***PP-341***

## *Prevalence and correlates of gasteroesophageal reflux disease in a cohort study*

**Iradj Maleki[1], Samaneh Borhani[2], Reza Alizadeh Navaei[3], Mahmood Moosazadeh[4], Motahareh Kheradmand[5]**

*[1]Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[2]Mazandaran University of Medical Sciences, Sari, Iran*
*[3]Gastrointestinal Cancer Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[4]Health Sciences Research Center, Addiction Institute, Mazandaran University of Medical Sciences, Sari, Iran*
*[5]Health Sciences Research Center, Addiction Institute, Mazandaran University of Medical Sciences, Sari, Iran*

***Background/Aims:*** Gastro Esophageal Reflux Disease (GERD) is caused by abnormal regurgitation and causes distressing symptoms. Considering the importance of the disease and considering that there has not been a large epidemiological study and its related factors in Iran, especially Mazandaran, and previous studies lacked the information of this region, the aim of this study was to determine the prevalence of regurgitation and its related factors in Tabari cohort population.

***Materials and Methods:*** This was a cross sectional study on Tabari cohort demographic data of Mazandaran. For the purpose of this study, the necessary information includes the presence and frequency of heartburn and regurgitation, age, gender, weight, height, BMI, smoking, opium, alcohol, history of hypertension, diabetes, depression were recorded. Data were analyzed using SPSS software version 18.

***Results:*** The prevalence of GERD was 27.6% (in men, 20.4% and women, 32.4%). The frequency of typical symptoms was significantly higher in women than in men. The risk of GERD in women was 1.67 times higher than that of men. The highest prevalence of GERD was in the age group of 55 to 70 years (32.9%). The prevalence of GERD was higher in single / divorced individuals (30.4%), urban areas (41.8%), and low socioeconomic status (41.7%). There was no significant difference in terms of age groups, marital status, and socioeconomic status with the prevalence of GERD. The incidence of GERD was higher in patients with a history of depression (36.2%), diabetes (29.3%) and hypertension (33.7%). There was no statistically significant association between the occurrence ratio of GERD and history of smoking, alcohol and hookah. The prevalence of GERD in obese subjects was 29.5%. The prevalence of GERD was significantly higher in subjects with higher BMI (29.5%), higher waist to hip ratio (29.1%) and high waist circumference (31.7%).

***Conclusion:*** This study showed that gender, region of residence, education level, marital status, BMI and depression are predictors of GERD.

***Keywords:*** Gastro-esophageal reflux disease, GERD, epidemiology, cohort

---

***PP-342***

## *Surgical complications in treatment of Peutz Jeghers syndrome: path to successful treatment outcome*

**Ozren Kordic[1], Stevan Trbojevic[2], Romana Rajic[2], Vesna Kovacevic[2], Radoslav Gajanin[1], Marko Lugonja[1], Dragan Vukovic[1], Gordana Strazivuk[1]**

*[1]Clinic for General and Abdominal Surgery, University Clinical Center of Republic of Srpska, Banja Luka, Bosnia-Herzegovina*
*[2]Department of Gastroenterology and Hepatology, University Clinical Center of Republic of Srpska, Clinic for Internal Diseases, Banja Luka, Bosnia-Herzegovina*
*[3]Institute for Clinical Pathology University Clinical Center of Republic of Srpska,*

Peutz Jeghers syndrome is a rare autosomal dominant inherited disease characterized by the existence of gastrointestinal hamartomatous polyps and mucocutaneus hiperpigmentation and it is caused by mutation at chromosome 19p13.3. We present the 40 years old, male patient transferred to our department after the urgent surgical procedure due to small bowel obstruction performed in regional general hospital where the Peutz Jeghers syndrome was histopathologicaly confirmed. Patient had surgical complications - dehiscence of anastomosis of resected parts of small intestine, and during re-intervention two enterostomies has been performed - terminal unipolar jejeunostomy 100 cm from ligament of Treitz and bipolar terminal ileostomy. On acceptance on our clinical department, total parenteral nutrition due to short bowel syndrome has been applied together with proper care of enterostomies site on abdominal wall. As enteroscopy is not available in or institution, we used two enterostomies, as new entrance, to reach the numerous polyps that has to be removed by colonoscopy. Multiple enteroscopies and endoscopic polypectomies through those enterostomies have been performed. Large intestine polyps also have been removed. Reconstructive surgery of small intestine has been performed after patient reached satisfactory condition, and laboratory findings. During operative procedure, several polyps that cannot be removed by endoscopic procedure have been removed through three separate enterotomies. Intestinal reconstruction has been performed by side to side, isoperistaltic stapler anastomosis of jejunal loops and suturing of bipolar ileostomy. After the operative procedure, patient underwent successful recovery. Patient left our department in good health, without any further complication. Future medical examination and screening endoscopy has been advised to the patient. We presented interesting case of patient where enterostomies created after surgical complications enable easy endoscopic polipectomies performed with colonoscope in treatment of Peutz Jeghers hamartomatous polyps, and together with further coming surgical intestinal reconstruction can lead to successful recovery and good overall treatment result.

***Keywords:*** Peutz Jeghers syndrome, gastrointestinal polyps, enterostomy

***PP-343***

## *Prednisolone oral suspension formulation for crohns disease: A case report*

**Fatima Grenho[1], Ana Lourenço[1], Beatriz Pinto[1], Rita Oliveira[1], Teresa Cabeças[1], Francisco SÁ[1], Gabriela Ribeiro[1], Ana Ventim[1], Joana Cardoso[1], Maria Baptista[1], Sara Franco[1], Teresa Pereira[1], Carlos Almeida[2], João Campos[3]**

*[1]Hospital Cuf Infante Santo, Lisboa, Portugal*
*[2]Ministerio Dos Remedios, Matosinhos, Portugal*
*[3]Faculdade de FarmÁcia da Universidade do Porto, Porto, Portugal*

Inflammatory bowel diseases are chronic inflammatory disorders of unknown etiology involving the gastrointestinal tract. Crohn's Disease (CD) is more prevalent in female individuals. One of the most frequent complications in CD is the intestinal obstruction with clinical manifestations such as fever, abdominal pain and diarrhea. Malabsorption problems make difficult the treatment with conventional oral corticoids. Thus, it is presented a case of a successful formulation switch as an alternative to tablets or intravenous corticoids, in a patient with CD. A 24 years old woman presented with abdominal pain in the right iliac fossa, food and biliary vomiting and bloating sensation/abdominal fullness. Computed Tomography describes significant thickening of a short terminal segment of the ileum, associated with slight upstream dilatation and densification of the surrounding fat. This may suggest terminal ileitis, suggesting CD. The first therapeutic option was ciprofloxacin, metronidazole and mesalamine granules q.d. During the colonoscopy, it was observed that in the cecum the ileocecal valve was deformed and progression to the ileum was impossible due to stenosis induced by inflammation. From the rectum up to 30 cm, multiple aphthous erosions with hyperaemic borders were observed. On day 5 of hospitalization, the patient presented diarrhea. As there was a doubt of poor absorption of mesalamine granules because they were seen in stools and an illeon obstruction was possible with pills, physicians asked the pharmacy for an alternative, because there is not an oral suspension available in Portugal. Although it is recommended the use of an intravenous corticoid in these situations, the patient wanted to be discharged. Based on the literature, the pharmacy team prepared an oral suspension of prednisolone 5mg/mL with 7 days of stability when stored between 2-8°C. The patient was discharged with the prednisolone oral suspension 20mg prescribed b.i.d. for 7 days. During follow up appointment, 7 days later, satisfactory clinical progression was presented, diarrhea and abdominal pain were resolved. An oral suspension of prednisolone has shown to be a good alternative to CD patients with risk of bowel occlusion. The switch described makes evident the role of the clinical pharmacist on the healthcare multidisciplinary team. Further investigation is needed, especially in order to try to increase suspension stability and evaluate the bioavailability of these formulations.

***Keywords:*** Crohn, prednisolone, formulation

---

***PP-344***

## *Thromboembolic manifestations of IBD*

**Ghita Kella Bennani, Fatimazohra Ajana, Nawal Lagdali, Camelia Berhili, Mohammed Borahma, Imane Benelbarhdadi**

*Medicine "c", Hepatogastroenterology Department, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** Among the extra-intestinal manifestations of inflammatory bowel disease are thromboembolism, which are rare, that occur in the course of the disease. The aim of our study is to estimate their prevalence and determine their epidemiological and evolutionary peculiarities.

***Materials and Methods:*** A 21-year retrospective study (1998-2019) of patients hospitalized for IBD who had confirmed thrombosis with imaging.

***Results:*** We included 1371 patients, 11 of them had a thrombosis: prevalence 0.8%, 5 men and 6 women, with a mean age of 36 years. 9 patients had Crohns disease and 2 had ulcerative colitis. The Thromboembolic manifestations were suggesting

of IBD in 2 patients while the mean time between the diagnosis of IBD and the occurrence of thrombosis was 8 months. It was a deep thrombosis of the lower limbs in 9 cases, pulmonary embolism in 1 case, a cerebral vein thrombosis in 2 cases including 1 associated with a pulmonary embolism. All our patients had exacerbation at the time of the of thrombosis, 2 were already under preventive heparin therapy, 1 patient was bed ridden, surgery in 2 patients, smoking in 1 case, pregnancy in 1 case, diabetes in 1 case and associated celiac disease in one case. biochemically: protein S deficiency in 1 patient, vitamin B12 deficiency in 1 patient, hypoalbuminemia in all patients. The evolution was fatal for 1 patient.

***Conclusion:*** Deep vein thrombosis of the lower extremities is the most frequent complication, occuring in the active phase of the disease emphasizing the importance of preventing thromboembolic disease when managing patients in flare-up.

***Keywords:*** Thromboembolic manifestations, IBD

---

***PP-345***

## *Unusual metastasis of hepatocellular carcinoma*

**Ghita Kella Bennani, Imane Benelbarhdadi, Camelia Berhili, Mohammed Borahma, Nawal Lagdali, Fatimazohra Ajana**

*Medicine "c", Hepatogastroenterology Department, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** Hepatocellular carcinoma is the most commmon primary tumor of th liver and is estimated to cause more than quarter of a million deaths each year throughout the world. Extrahepatic metastasis of HCC is not common. Our goal is to determine the frequency of unusual metastases of HCC, their morphological and therapeutic aspects.

***Materials and Methods:*** This is a retrospective study of 17 patients with HCC and with unusual metastasis collected from 1993 to 2019.

***Results:*** It's a retrospective study about 17 patients, 10 men and 7 women with a mean age of 59.1 years. 14 patients had cirrhosis due to hepatitis C virus, 1 patient had cirrhosis due to viral B infection and 2 patients had HCC within an non-cirrhotic liver. The HCC's size was from 2 to 10 cm. the AFP was normal in 11 cases and elevated in 6 cases (>200ng/mL). we collected 4 cases of adrenal metastases, 3 costovertebral metastases,2 gastric metastases,2 brain metastases, 1 crannial, clavicular, ovarian, nasopharyngeal, lung metastasis and a case of metastasis in the path of percutaneous biopsy of HCC. In 5 cases the diagnosis of HCC and metastasis was synchronous wile in 12 cases median time from diagnosis of hepatocellular carcinoma and extrahepatic HCC was 15.5 months. Therapeutic abstention was decides in 15 patients. Cutaneous metastasis was resected surgically and HCC occurring in healthy liver was treated by humpectomy and upper pole gastrectomy in gastric metastasis. The average survival was estimated at 13 months with declines of 18 months, 7 deaths occurred in our series.

***Conclusion:*** Considering the substantial advances in tratement of HCC, the detection of extrahepatic HCC is crucial for patient to receive appropriate therapy, which ultimately determines patients survival.

***Keywords:*** HCC, unusual metastasis

---

***PP-346***

## *Acute pancreatitis due to high dose colchicine for suicidal use in a patient with Behçets disease*

**Devran Bozyiğit[1], Mehmet Çoban[2], Halil Bingöl Değertekin[2]**

*[1]Department of Internal Medicine, Ufuk University School of Medicine, Ankara, Turkey*
*[2]Department of Gastroenterology, Ufuk University School of Medicine, Ankara, Turkey*

***Intoduction:*** Colchicine is an alkaloid obtained from the colchicum autumnale plant. It is also effective in the treatment of Behçets disease, familial mediterranean fever and recurrent effusions with pericarditis. There is a significant side effect potential especially in the gastrointestinal tract and bone marrow with high mitosis cycle. This case report presents a case of acute pancreatitis caused by high dose colchicine intake.

***Case:*** A 22-year-old girl with Behçets disease for 2 years was followed in the intensive care unit for 3 days because of taking 50 tablets of colchicine for suicidal purposes. She was hospitalized for follow-up with complaints of ongoing epigastric pain in the back and lower back and nausea and vomiting. In the laboratory tests; AST (U/L) 93, ALT (U/L) 114, GGT (U/L) 48, direct bilirubin (mg/dL) 0.7, amylase (U/L) 396, pancreatic amylase (U/L) 345, lipase (U/L) 997, C-Reactive protein (mg/dL) 41 were detected. 48 hours after CT scan, pancreas appearance was normal. Amylase and lipase levels gradually decreased in 7 days. The patient was discharged for follow-up following clinical and biochemical improvement.

***Conclusion:*** A case with high amylase and lipase elevation and mild acute pancreatitis due to high dose colchicine has not been reported in the literature. Attention is drawn to the development of acute pancreatitis due to high dose colchicine.

***Keywords:*** Behçets disease, colchicine, acute pancreatitis

---

***PP-347***

## *Unusual endoscopic impression in the stomach due to extrinsic compression by gall bladder*

**Gokul Bollu Janakan[1], Chandrasekar Thoguluva Seshadri[1], Raja Yogesh Kalamegam[1], Sathiamoorthy Suriyanarayanan[1], Sabarinathan Ramanathan[1], Prasad Menta Sanjeevaraya[1], Viveksandeep Thoguluva Chandrasekar[2]**

*[1]Medindia Hospitals, Tamil Nadu, India*
*[2]University of Kansas School of Medicine, Kansas, USA*

Extrinsic compression of the stomach leading to endoscopic impression can be caused due to various reasons. Normal extragastric structures like intestines, gall bladder, spleen, liver, pancreas and splenic vessels are the most common causes. Benign and malignant pathological lesions of the liver, spleen, pancreas and kidneys, retroperitoneal lymphadenopathies and collections in the lesser sac are the other causes for such compressions. We report a case of unusual gastric impression in a patient with obstructive jaundice caused by a pancreatic head mass. His upper gastrointestinal endoscopy revealed a smooth impression over the postero-inferior surface of the distal body of the stomach along the greater curvature (Figure 1). To categorize the nature of this impression, an endoscopic ultrasonogram (EUS) examination was performed, which identified this impression as over distended gall bladder (Figure 2). Generally distended gall bladder causes such an impression over the anterior wall of the antrum of the stomach or the duodenal bulb. In this case the eccentric placement and impression of the gall bladder was due to gross hepatomegaly observed and its over distension caused by the pancreatic head mass (Figure 3), both pushing the gall bladder down and to the left. Endoscopic impressions due to extrinsic compression of the stomach can thus pose a challenge for identification even to an experienced endoscopist. EUS study can differentiate various extrinsic causes of impression from intrinsic lesions of the stomach. EUS examination will be of immense use while performing cholecysto-gastrostomy when ERCP for biliary drainage fails in such cases.

***Keywords:*** Unusual gastric impression, distended gall bladder, endoscopic ultrasonography

**Figure 1.** Endoscopic impression in the postero-inferior surface of the distal body of the stomach along the greater curvature.

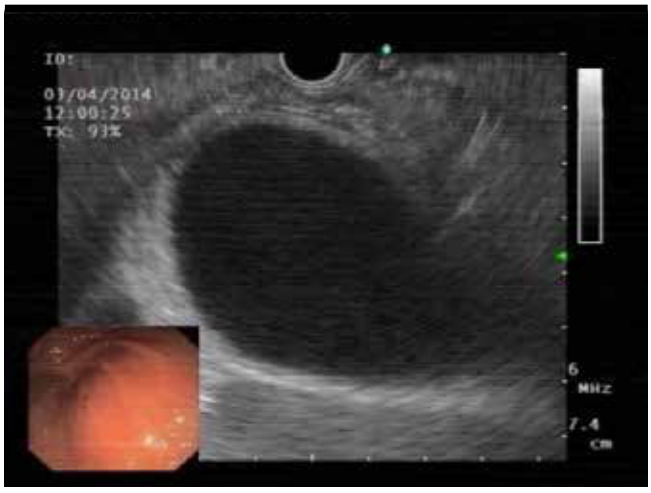



**Figure 2.** EUS examination showing an over distended gall bladder abutting the greater curvature of the stomach.

**Figure 3.** EUS examination showing a hypoechoic mass lesion in the head of the pancreas.

***PP-348***

## *Convulsion due to ertapenem in patient with diarrhea*

**Asya Eylül Ağaoğlu[1], Mehmet Çoban[2], Halil Bingöl Değertekin[2]**

*[1]Department of Internal Medicine, Ufuk University School of Medicine, Ankara, Turkey*
*[2]Department of Gastroenterology, Ufuk University School of Medicine, Ankara, Turkey*

***Introduction:*** It is known that carbapenem antibiotics, including Ertapenem, have neurotoxic side effects. The most common neurotoxic side effects are convulsive seizures. Among carbapenems, ertapenem rarely causes convulsions; however, increased risk of seizures associated with ertapenem has been reported in some cases, such as renal dysfunction, advanced age, and polypharmacy.

***Case:*** A 68-year-old male patient has applied to the emergency department with fever, fatigue and anorexia. He was admitted to the infectious diseases department with a diagnosis of urinary tract infection. An intravenous ertapenem treatment was started with 2x500 mg dosage. After the second day of hospitalization, the patient was consulted and transferred to the Gastroenterology department with abdominal pain and diarrhea. On the same day, ertapenem dose was increased to 2x1 gram due to GFR increasing to over 30 (mL/min). Following the transfer, the patient had a generalized tonic-clonic seizure. During the follow-up, 3 more generalized tonic clonic seizures were observed lasting 30 sec to 1 min. The awake EEG which performed the following day was within normal limits. It was thought that seizures may be related to ertapenem usage in this patient who was followed jointly with neurology department afterwards.

***Conclusion:*** In a retrospective study of 1706 patients treated with Ertapenem, seizures were observed in 33 patients. When these patients were compared with the control group, the history of stroke was significantly higher in the seizure group. As a result, previous stroke, anemia and thrombocytopenia were found to be related to seizure development in patients receiving ertapenem.

***Keywords:*** Ertapenem, convulsion, diarrhea

---

***PP-349***

## *Anti-tnf treatment initiation in a small cohort of ibd patients in Kazakhstan*

**Marzhan Zhanasbayeva, Yuriy Prokopenko, Kulpash Kaliaskarova, Aiymkul Ashimkhanova, Gulbanu Shadiyeva, Aidana Abdigappar, Gulnur Omarova, Saltanat Kadyrkulova**

*[1]National Research Oncology Centre, Kazakhstan*
*[2]Nazarbayev University School of Medicine, Nur-Sultan, Kazakhstan*

***Background/Aims:*** The data from the last systematic review showed the global problem of inflammatory bowel disease (IBD). Overall, 16 (72.7%) of 22 studies with Crohn's disease (CD) and 15 (83.3%) of 18 studies with ulcerative colitis (UC) showed a stable or declining incidence of IBD in North America and Europe. However, in the newly industrialized countries of Africa, Asia and South America, including Brazil and Taiwan, an increase in the incidence of IBD has been observed since 1990. Kazakhstan among these developing countries observing the increase in incidence of IBD among young and middle aged population. The implementation of governmental support to start anti-TNF treatment for patients requiring adequate step down uproach has improved the outcome of disease.

***Materials and Methods:*** The aim of this report is to analyze the results of patients clinical and laboratory dynamics after anti-TNF treatment. Mayo score based clinical improvement assessment, and CRP, fecal calprotectin were used to assess the dynamics along with colonoscopy improvement signs.

***Results:*** Since 2017 the first cohort of 5 patients at National Oncology & Transplant Center started anti-TNF treatment. Mean age of the patients=38 (sd±8), male to female ratio 2:3. Mayo score before the initiation of treatment mean=8.4 (sd±1.34) with a decrease at week 48 of treatment progression mean=5.6 (sd±1.14). Improvement of CRP and fecal calprotectin results were dramatical in 4 patients. One patient's disease course has not improved dramatically acording to lab results of CRP and fecal calprotectin, however her clinical symptoms and colonoscopy results subsided. CRP dynamics at the beginning and after 48-week of treatment showed dramatic decrease, however due to the high levels of 1 patient's CRP numbers p=0.41 without statistically significant difference. According to decrease of fecal calprotectin before (mean=929 mg/g) and after 48 week treatment it was (mean=235 mg/g) statistically significant with a $p<0.0003$.

***Conclusion:*** These patients presented with L3S3 Ulcerative colitis with severe flares and extraintestinal manifestations as arthritis, severe fatique, eye inflammation/bluredness with either steroid resistance of dependence. Anti-TNF showed clinical and laboratory improvements in these category of patients and we are aiming to expand our IBD unit and increase our cohort of patients to be treated with anti-TNF in the future.

***Keywords:*** Ulcerative colitis, anti-TNF treatment, IBD, Crohns disease

***PP-350***

## *Kayser fleischer like rings in patients with hepatic disease*

**Hosdurga Vijaya Pai, Chetan Chhikara, Cannanore Ganesh Pai**

*Kasturba Medical College, Manipal, India*

***Background/Aims:*** To study Kayser Fleischer Like Rings in patients with Hepatitic or Cholestatic Liver Disease & to find out the determinants of KF Like Rings in patients with Hepatitic and Cholestatic liver diseases.

***Materials and Methods:*** We evaluated patients with Hepatitic and Cholestatic liver diseases with Bilirubin levels>10 mg/dL seen in Dept. of Gastroenterology. These patients were evaluated to rule out Wilson's disease and referred to ophthalmology for the presence or absence of KF ring.

***Results:*** A total of 67 patients with Total bilirubin>10 mg/dL were included. Patients were divided into 3 groups on the basis of Total S. bilirubin level. Group 1->30 mg/dL, Group 2->20-<30 mg/dL & Group 3->10-<20 mg/dL at baseline & Group 1->20 mg/dL, Group 2->10-<20 mg/dL, Group 3- <10 mg/dL on 1st & 2nd follow- up visit. KF like ring was seen in 98.5% of patients with high bilirubin. There was no significant difference between the age and KF like Rings. There was no significant difference between the Total S. bilirubin levels and KF Like Ring. There was no significant difference between the gender and KF Like Rings.

***Conclusion:*** KF like ring was seen in 98.5% of patients with high Bilirubin. KF like ring disappeared in 87.5% of patients with reduction in the S. bilirubin level to less than 10 mg/dL. No differences were found in the patient's age and KF Like Rings.

***Keywords:*** Kayser fleischer rings, Kayser fleischer like rings, hepatic disease

---

***PP-351***

## *Nivolumab induced severe gastritis*

**Zeynep Komesli, Emel Ahıshalı, Emrah Alper, Mehmet Gökhan Gönenli**

*Koç University Hospital, İstanbul, Turkey*

Nivolumab is a monoclonal antibody targeting the PD-1 receptors. It is associated with an increased risk of autoimmunological complications. Our patient is a 50 year old male who had been diagnosed with malignant melanoma 12 years ago. During his follow-up in Semptember 2018, he had an axillary mass. The pathology results for the excisional biopsy of the mass revealed in transit metastatic malignant melanoma. He received 260 mg (~3 mg/kg) of Nivolumab every 2 weeks for 11 doses. During the last month of his medication he lost 6 kilograms due to loss of apetite and early satiety but he did not report any nausea or vomiting. His follow-up PET-CT revealed a diffuse uptake in his stomach which had not been observed in his initial PET-CT. His esophagogastroduodenoscopy (EGD) revealed diffuse gastritis. We observed that the gastric mucosa was covered with white exudates and when the exudate was washed away the underlying mucosa appeared hyperemic, edematous and friable. We started him on proton pump-inhibitors and sucralfate solutions, and ceased the nivolumab treatment. The histopathological evaluation of antral and duodenal biopsies demonstrated lymphocytic infiltration into the lamina propria and severe active chronic gastritis with ulcerations. We also performed a colonoscopy which demonstrated normal colon findings. With these results, we diagnosed the patient with nivolumab induced gastritis and enteritis, and started him on intravenous methylprednisolon (1 mg/kg) treatment. After 5 days of hospitalisation the patient reported that his complaints had improved. We planned to taper the steroid treatment over two months. In his monthly follow-up visits, the patient reported no complaints and had gained a total of 8 kilograms. His control EGD revealed normal gastric and duodenal findings. The most common gastrointestinal adverse effect associated

with nivolumab is enterocolitis whereas gastritis is relatively rare. Gastrointestinal adverse effects respond well to steroid treatment.

***Keywords:*** Nivolumab, gastritis, enteritis

---

***PP-352***

## *Esophageal high resolution manometry (ESO HRM) results in gastroesophageal reflux (GER) patients*

**Arzu Tiftikçi, Özdal Ersoy, Nesliar Eser Kutsal, Suna Yapalı, Şafak Kızıltaş, Fatih Oğuz Önder, Nurten Türkel Küçükmetin, Ayşe Nurdan Tözün**

*Department of Gastroenterology, Acıbadem University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** In GER patients when an operation is being planned esophageal motility study is necessary. Description of esophageal smooth muscle peristaltic function can help us to decide the type of antireflux surgery. In case of moderate or severe hypomotility we can suggest surgeon to avoid 360° fundoplication. And also the type of hernia is determined according to the Lower Esophageal Sphincter (LES) location with hiatus. In this study, we shared the results of patients undergoing esoHRM due to reflux disease.

***Materials and Methods:*** We retrospectively evaluate esoHRM studies in reflux patients which has been done in order to determine the location of LES for impedance study or before antireflux surgery. We used MMS solid state catheter for the study. We calculated LES median values, esophageal contractility and determined hernia status.

***Results:*** Between October 2012-September 2017, total 149 patients were studied esoHRM 153 times in Endoscopy Unit of Acıbadem Maslak Hospital. Eighteen of these patients had foreign nationals, one of them was diagnosed with eosinophilic esophagitis, 6 had previous reflux surgery, since 50 of those patient's indication for motility study was dysphagia, these 75 patients were excluded from the study and 74 patients were evaluated. The ages of these 74 patients was median 43 (min 23-max 81) and 42 were male and 32 were female. The reason of HRM indications was to determine the location of LES before the impedance study in 40 patients, before the anti-reflux operation in 27 patients, and due to GER disease in 7 patients. HRM diagnoses was normal in 39 (52.7%) patients, 8 had (10.8%) hypotensive LES, 17 (23%) had ineffective motility (IEM) disease and 8 (10.8%) had hypotensive LES and IEM, 2 (2.7%) had contractility loss. Esofagogastric junction types were 34 (45.9%) Type 1, 12 (16.2%) Type 2, 18 (24.3%) Type 3a, 10 had (13.5%) Type 3b.

***Conclusion:*** In long-term reflux disease, it should be known that body motility can be effected and the patient should be referred to reflux operation with this information in order to avoid postoperative dysphagia. We found hypomotility in almost half of our patients and stated the situation in our operation proposal. LES pressure, contractility status and hernia type should be mentioned in the esophageal HRM reports.

***Keywords:*** Anti-reflux surgery, high resolution manometry, hypomotility

---

***PP-353***

## *Duodenal polyps – are we seeing something that isn't there?*

**Rigers Cama, Rajan Patel, Richard Hall, Ralph Canda, Kalpesh Besherdas**

*Royal Free London Nhs Trust, Hampstead, UK*

***Background/Aims:*** Duodenal polyps (DP) are usually found incidentally during diagnostic upper GI endoscopy. ASGE published guidelines in 2015 on the role of endoscopy in ampullary and duodenal adenomas but clinical practice is still variable. The proportion of DPs that are duodenal adenomas and have malignant potential is not clearly known due to their low incidence. We aimed to determine the endoscopic-histological correlation for DPs and describe the approach in our unit.

***Materials and Methods:*** We performed a retrospective study at a tertiary London-based hospital Trust. Endoscopy software (Unisoft GI reporting tool) was used to identify the last 200 patients to be diagnosed with a duodenal polyp in reverse chronological order from December 2018. Endoscopy reports were reviewed for polyp description and therapeutic intervention and correlated to histology.

***Results:*** 200 duodenal polyps were diagnosed between February 2016 and December 2018 (median age 70 (IQR 59 – 77), Female 94 (47%)). The size of the polyp was not described in 88 patients (44%), the median size in the remain 112 patients was 6mm (IQR 4–10). 13 (6.5%) polyps were>20mm. Polyp morphology was described as sessile in 30 (15%), pedunculated in 11 (5.5%) and not described in 159 (79.5%). Pit pattern was described as hyperplastic in 6 (3%), adenomatous in 20 (10%), NET/lipoma in 17 (8.5%), unclear in 13 (6.5%) and no description in 144 (72%). Biopsies of the polyp were taken in 189 patients (94.5%) and polypectomy was performed in 15 (7.5%). Of those resected, polyps were retrieved in 13 (86.7%). Histology was as follows: 76 normal (38%), 31 adenoma (15.5%), 23 gastric metaplasia/heterotopia (11.5%), 21 NET/GIST/lipoma (10.5%), 19 Brunner's glands (9.5%) and 19 duodenitis/non-specific changes (9.5%). Only 7 of 20 polyps thought to be adenomas at endoscopy were confirmed on histology (35%).

***Conclusion:*** 3 out of 4 patients diagnosed with DPs do not have a description of the morphology or pit pattern in the report and less than half describe the size. Less than 10% of DPs undergo polypectomy. One third of patients have normal duodenal mucosa on histology. We conclude there is significant variability of practice with regards to management of DPs. We also conclude that better endoscopic descriptions are required for DPs which may in turn reduce the number of unnecessary histological samples being taken. Automated duodenal polyp characterisation on the endoscopy reporting tool may help in better documentation of DPs.

***Keywords:*** Duodenal polyps (DP), duodenal ademona, endoscopy

---

***PP-354***

## *Percutaneous endoscopic gastrostomy placement – what are the risk factors for poor outcomes?*

**Rigers Cama, Saadiq Moledina, Mohamed Ali, Richard Hall, Rajan Patel, Kalpesh Besherdas**

Royal Free London Nhs Trust, Hampstead, UK

***Background/Aims:*** Percutaneous endoscopic gastrostomy (PEG) is a relatively safe well-established procedure to permit long term enteral feeding in patients with swallowing difficulties. However, there is a significant procedure-related and all-cause mortality risk. Controversy still remains regarding patient selection and optimal timing for the procedure. We aimed to identify risk factors associated with length of stay and mortality following PEG placement.

***Materials and Methods:*** We performed a retrospective study at a tertiary London-based hospital Trust. Endoscopy software (Unisoft GI reporting tool) was used to identify the last 100 patients to have a PEG placed in reverse chronological order from December 2018. Endoscopy reports were reviewed for indication. Electronic patient records were used to identify functional status prior to procedure, length of stay and mortality. Chest radiograph reports were reviewed for evidence of consolidation at the time of procedure. Serum markers including white cell count, creatinine and albumin were noted.

***Results:*** 100 patients had a PEG placed between February 2017 and December 2018 (median age 75 (IQR 60.5–82.5), female 46 (46%)). Mean time from admission to PEG was 36.7 days (range 0–170). Mean length of stay 64.4 days (2–253). Indica-

tions for PEG: 36 Stroke (36%), 38 other neurological condition (38%), 6 prolonged ventilation (6%), 20 other (20%). 51% of patients were independent of activities of daily living (ADLs) prior to PEG. All-cause mortality rate at 1 month, 3 months and 12 months was 5%, 17% and 33%, respectively.

***Conclusion:*** After admission, patients wait over a month to have PEG placement and total length of stay is over 2 months. Only half of patients are independent at time of PEG placement. Older age and lack of independence for activities of daily living are associated with higher mortality at 12 months after PEG placement. Consolidation on chest radiograph, leucocytosis and low albumin are significantly associated with mortality at 12 months. We conclude that patient selection for PEG placement should consider resolution of radiological and serological abnormalities.

***Keywords:*** Percutaneous endoscopic gastrostomy (PEG), mortality, enteral feeding

| | 12 month mortality (n=33) | 12 month survival (n=67) | *p |
|---|---|---|---|
| Age (mean) | 74.7 (43–94) | 68.1 (19–94) | 0.03 |
| Gender (Female, %) | 16 (48.5) | 30 (44.8) | 0.73 |
| Admission to PEG (days) | 42.7 (0–114) | 33.8 (0–170) | 0.07 |
| Independent ADLs | 9 (27.3) | 42 (62.7) | 0.0009 |
| Consolidation (Y) | 16 (48.5) | 7 (10.4) | 0.00002 |
| WCC, mean (range) | 11.3 (4–37) | 8.3 (3.6–17.3) | 0.0004 |
| Creatinine, mean, (range) | 84.1 (26–500) | 68.0 (23–397) | 0.23 |
| Albumin, mean, (range) | 28.3 (18–35) | 34.4 (15–49) | <0.0001 |

***PP-355***

## *Role of tobacco smoking in liver fibrosis in heavy drinking patients*

**Dorina Osmanaj, Marsela Sina, Skerdi Prifti, Ilir Akshija**

*University Hospital Center "Mother Theresa", Tirana, Albania*

***Background/Aims:*** Excessive alcohol drinking and tobacco smoking, is an actual healthcare problem. Alcohol abuse is well established as one of the risk factors for alcoholic liver disease (ALD). There are studies that suggest that prolonged exposure to ethanol and nicotine may causes severe oxidative liver damages in rats. The aim of this study was to evaluate the role of smoking in the progression of ALD in heavy drinking patients.

***Materials and Methods:*** This is a retrospective study of 104 patients treated with alcoholic withdrawal syndrome from the database of the University Hospital "Mother Theresa", Tirana, Albania, during January-June 2019. Fib4 index of ALD rate, according to the duration of alcohol consumption and cigarette smoking of the patients are evaluated. All the patients were negative to hepatic viral markers. IBM SPSS 20.0 and ROC Curve of dual logistic regression are used.

***Results:*** In this study, 83.7% of heavy drinkers were also heavy smokers (>31 cigarette/day), while 16.3% of them were not smokers. The approximate fibrosis stage of 51% of the patients was F0-F1, 34.6% was F2-F3, 14. 4% was F4-F6. The patients who smoked tobacco more than 21 years had more than 71.4% of chance to progress for advanced liver fibrosis, with specificity of 69.3%, p=0.001 CI: 0.206-0.412.

***Conclusion:*** The risk of liver damages in heavy alcohol drinkers, increase significantly with the duration of the heavy smoking. The heavy drinkers who smoked were more at risk for advanced ALD.

***Keywords:*** Alcohol, tobacco, liver fibrosis

***PP-356***

## *Evaluation of dynamic thiol-disulfide homeostasis in celiac disease*

**Mustafa Tahtacı, Fatih Kıvrakoğlu, Salim Neşelioğlu, Özcan Erel, Osman Ersoy**

*Ankara Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Thiol-disulfide homestasis plays an important role in defense against oxidative stress. In this study, we aimed to evaluate dynamic thiol-disulfide homeostasis according to celiac disease activity.

***Materials and Methods:*** Twenty-eight patients with celiac disease were included in the study. The patients were divided into two groups as active and inactive celiac according to serum celiac serological markers. Dynamic thiol-disulfide hemostasis tests were performed by a novel developed automated spectrophotometric method. Dynamic thiol-disulfide homeostasis tests were compared in both groups. Values of $p<0.05$ were considered statistically significant.

***Results:*** There were no significant difference between two groups in terms of sex, age, native thiol, total thiol, and disulfide levels ($p>0.05$). There was also no significant difference between the disulfide/native thiol ratios of the groups ($p>0.05$). The comparison of demographic and dynamic thiol-disulfide values of groups are shown in Table 1.

***Conclusion:*** Many studies have reported that thiol-disulfide homestasis plays a critical role in antioxidant defense. However, we did not find any significant difference in terms of thiol-disulfide homestasis in active and inactive celiac patients. We believe that our findings should be confirmed by larger scale studies.

***Keywords:*** Thiol-disulfide homestasis, celiac disease, antioxidant defense

***Table 1.*** Comparison of demographic and dynamic thiol-disulfide values of groups

| | Active celiac (n=11) | Inactive Celiac (n=17) | p |
|---|---|---|---|
| Female/Male | 9/2 | 12/5 | 0.419 |
| Age | 44 (25-59) | 55 (23-74) | 0.066 |
| Native thiol (μmol/L) | 454 (418.7-761.6) | 452.4 (335.6-537.4) | 0.853 |
| Total thiol (μmol/L) | 492.6 (441.3-805.6) | 485.8 (366.6-586.1) | 0.547 |
| Disulfide (μmol/L) | 22 (6-33.4) | 16.6 (4-35.8) | 0.458 |
| Disulfide/Native thiol | 0.03 (0.02-0.08) | 0.03 (0.01-0.07) | 0.746 |

Values expressed as n or median (minimum-maximum)

***PP-357***

## *Indications, sucsess rate and complications of ercp at sanglah general hospital, Denpasar, Bali*

**Gde Somayana, Idn Wibawa**

*Division of Gastroentero-Hepatology, Department of Internal Medicine, Sanglah General Hospital, Bali, Indonesia*

***Background/Aims:*** Endoscopic Retrograde Cholangiopancreatography (ERCP) is no longer used as a diagnostic tool, but rather as a therapeutic modality for pancreatobiliary diseases. Complications in ERCP are still the main concern. Sanglah General Hospital begin to perform ERCP in 2015. The aims of this study to evaluate the indications, succsess rate and complications of ERCP in the first year.

***Materials and Methods:*** This is a retrospective study, involving 35 patients who underwent ERCP from January 2015 to December 2015. The data were analyzed to assess indications, success rates and complications that arose after performing ERCP.

***Results:*** Most of the indications of ERCP were due to bile duct stones (18 cases). The following indications were as follows: 8 people with periampullary tumors, 5 people with cholangiocarcinoma, 2 people with pancreatic tumors and 2 people with bile duct stenosis. Of the total 35 patients, there were 5 people unable to did cannulation because there was no biliary access, namely 1 person with duodenal tumor and 4 people with ampulla of Vater tumors. Out of 30 patients who were performed biliary cannulation, only 24 patiens were successful (success rate were 80%), and 6 patients failed. The complications of ERCP were found in 5 patients (16.7%), namely 13.33% with pancreatitis (4 cases) and 1 person with contrast leakage.

***Conclusion:*** Indications of ERCP were as follows: bile duct stones were 51.43%, periampullary tumors were 22.85%, cholangiocarcinoma were 14.28%, pancreatic tumor were 5.72% and stenosis of bile duct were 5,72%. The succsess rate of cannulation were 80%. Post ERCP pancreatitis were found in 4 cases (13.33%) and contrast leakage was found in 1 case. The overall complications was 16,7%. The experience of endoscopist, appropriate patients selection and volume of cases will determine the incidence and type of the ERCP complication.

***Keywords:*** ERCP, success rate, complications

---

***PP-358***

## *Diagnostic retrograde upper endoscopy of obstructing lesion of the proximal esophagus*

**Victor Fernando Yep-gamarra[1], Augusto Aldave-herrera[2], Miguel Villacorta[1], Hector Calvo[2], Humberto Mariños [1], Jonner Pelaez[1], Jaime Balarezo-martinez[1], Pedro Delgado-guillena[3], Cristian Diaz-velez[4], Jean A Donet[5]**

*[1]Department of Gastroenterology-Regional Hospital of Trujillo, Trujillo, Peru*
*[2]National University of Trujillo, Trujillo, Peru*
*[3]General Hospital of Granollers, Bacelona, Spain*
*[4]National Hospital Almanzor Aguinaga, Essalud Chiclayo, Peru*
*[5]University of California, San Francisco, USA*

Proximal esophageal cancer may present with severe stenosis of the esophageal lumen precluding the passage of the gastroscope with inability to take biopsies. This clinical scenario, although infrequent, requieres non-standardized endoscopic techniques and a multi-disciplinary approach. Retrograde upper endoscopy through gastrostostomy has been reported both for diagnosis and palliative treatment of esophageal cancer. We describe a 61 year-old male patient who presented with progressive dysphagia to solids and liquids associated to significant weight loss. Initial upper endoscoscopy found a severe stenosis at the level of the upper esophageal sphincter that was unable to be traversed with the gastroscope. Biopsies from this area were non-diagnostic. Esophagram (Figure 1) showed a 8 cm length severe stenosis in the proximal esophagus. The patient was then taken to the operating room for gastrostomy creation with gastrostomy tube placement by surgery for enteral nutrition. During the same surgical act, the created gastrostomy was used as entry port to pass the upper endoscopy, which was retrogradely advanced to the esophagus. A proliferating and obstructing lesion was seen in the proximl esophagus (Figure 2). Biopsies revealed epidermoid adenocarcinoma. Esophageal malignancy infrequently present with severe stenosis of the proximal esophagus (8% of the cases). Retrograde upper endoscopy is an alternative technique for the diagnosis of these lesions. Gastrostomy and jejunostomy both have been reported as entry ports in the literature. The first case was published by O'Sullivan in 1997. In some cases, the gastrostomy or jeunostomy opening can be progressively dilated to a desired diameter to allow passage of the endoscope. In addition, access to the gastric cavity can be obtained percutaneously by Interventional Radiology when needed. Retrograde upper endoscopy though gastrostomy is an effective and safe technique for the management of patients with proximal esophageal lesions. A multidisciplinary approach along with Surgery or Interventional Radiology is paramount for better management of these patients.

***Keywords:*** Esophageal stenosis, retrograde upper endoscopy, esophageal cancer, gastrostomy

**Figure 1.** Esophagram: 8 cm length severe stenosis in the proximal esophagus with accumulation of barium in the hypopharinx.

**Figure 2.** Retrograde esophageal view of malignant stricture in the proximal esophagus

***PP-359***

## *Association with autoimmune thyroid disorders and IL-17A of inflammatory bowel disease*

**Banu Demet Özel Coskun[1], Abdullah Eyvaz[2]**

*[1]Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*
*[2]Department of Internal Medicine, Kayseri Training and Research Hospital, Kayseri, Turkey*

***Background/Aims:*** Ulcerative Colitis (UC) and Crohn Disease (CD) are characterized by intestinal inflammation that may result from a combination of causes such as environmental or immunological factors. Interleukin 17A (IL-17A) is the major effector molecule secreted by Th17 cells and has been recently shown play a role in the pathogenesis of various autoimmune diseases (rheumatoid arthritis, psoriasis, systemic lupus, scleroderma, multiple sclerosis, inflammatory bowel disease). The aim of this study was to determine the prevalence of autoimmune thyroid disease (ATD) in patients with inflammatory bowel disease (IBD) and to evaluate relationship between serum IL-17A levels and disease activate. To date, the coexistence of IBD and ATD has not been well documented in Turkish population.

***Materials and Methods:*** Fifty-one patients with IBD (40 Ulcerative colitis, 11 Crohns disease) and sex- and age-matched 34 healthy controls were included in the study. Detailed history, physical examination and laboratory findings of all patients were recorded (Table 1). Clinical activity of IBD was assessed by the Truelove-Witts scoring system in patients with Ulcerative colitis (UC) and by the Crohns Disease Activity Index in Crohns disease (CD). The diagnosis of ATD was made with serum thyroid hormone and thyroid autoantibody values and radiographic examination of the thyroid gland. Serum samples were collected from all subjects in the study to measure IL-17A, thyroid hormone levels, and thyroid autoantibody levels and were kept at -80 degrees. IL-17A levels were measured by Enzyme-Linked Immuno-Sorbent Assay method and serum thyroid hormone and thyroid autoantibody levels were measured by chemiluminescence method.

***Results:*** No ATD was detected in patients with IBD and controls. Serum IL-17A levels were statistically significantly higher in the IBD group than in the CG ($p<0.05$). Serum IL17-A levels were 4.29±2.3 pg/mL in patients with UC, 3.24±5.4 pg/mL in CD and 0.87±3.4 pg/mL in CG. When the IBD participants were stratified into UC and CD groups, the serum levels of IL17-A in UC and CD patients were significantly higher than those in controls ($p<0.01$). The serum IL-17A levels in the CD patient were significantly higher than those in UC ($p<0.01$). Serum IL-17A levels were not correlated with the Ulcerative Colitis Activity Index and Crohns Disease Activity Index scores.

***Conclusion:*** The increased levels of IL-17A in IBD are suggesting that IL-17A may be the target of treatment in this group of patients. In addition, our study did not identify ATD in the IBD group. For detection of relationship between these two disease groups of autoimmune origin much larger scale studies will be needed.

***Keywords:*** Inflammatuary bowel disease, autoimmune thyroid disease, interleukin-17A

***Table 1.*** Baseline characteristics and laboratory values of patients with IBD and Controls

| | IBD n=51 | Controls n=34 | p |
|---|---|---|---|
| Age (Years) | 46.3±12.9 | 41.3±11.7 | >0.05 |
| Gender (Male/Female) | 41/10 | 23/11 | >0.05 |
| WBC (/mm$^3$) | 7.8±3.1 | 7.0±2.2 | >0.05 |
| Hemoglobin (gr/dL) | 13.7±0.9 | 13.5±0.6 | >0.05 |
| Platelet (/mm$^3$) | 390.9±39.3 | 404.2±42 | >0.05 |
| ESR (mm/hour) | 11.9±8.7 | 5.0±2.1 | <0.05 |
| CRP (mg/dL) | 4.5±2.3 | 3.3±0.5 | <0.05 |
| IL-17A (pg/mL) | 0.57 (0.08-3.75) | 0.08 (0.01-0.32) | 0.015 |

***PP-360***

## *Malignancies in patients with inflammatory bowel disease: A single-centre experience*

**Oana Cristina Petrea[1], Carol Stanciu[2], Irina Girleanu[1], Catalin Sfarti[1], Camelia Cojocariu[1], Laura Huiban[1], Stefan Chiriac[1], Ana-maria Singeap[1], Anca Trifan[1]**

*[1]Grigore T. Popa University of Medicine and Pharmacy, Institute of Gastroenterology and Hepatology, Iasi, Romania*
*[2]Institute of Gastroenterology and Hepatology, Iasi, Romania*

***Background/Aims:*** Gastrointestinal and extraintestinal malignancies are long-term complications in patients with inflammatory bowel disease (IBD), likely as a result of chronic inflammation and the use of immunosuppressive medications used to control inflammation. The aim of this study was to assess the frequency of malignancies in IBD patients admitted in a tertiary referral center.

***Materials and Methods:*** We performed a retrospective analysis of data from 331 IBD patients admitted to our tertiary referral center in North Eastern Romania between January 2011 and June 2017. Demographic, clinical, and disease severity along with type of medication were carefully collected from the patients' medical charts.

***Results:*** The study population included 331 IBD patients (mean age 43.11±14.21 years), predominantly male patients (58.9%). Amongst them, 9 (2.71%) patients developed various malignancies, 7 (6.25%) patients being diagnosed with ulcerative colitis (UC). The main malignancies identified were gastric adenocarcinoma (2 cases), urothelial carcinoma (1 case), pancreatic cancer (2 case), basal cell carcinoma (2 cases), breast cancer (1 case) and uterine cervical adenocarcinoma (1 case). None of the patients that developed a malignancy had received immunosuppressive or biological therapy.

***Conclusion:*** Immunomodulators and biologics appear to be protective against malignancy in IBD patients.

***Keywords:*** Inflammatory bowel disease, malignancy, immunomodulators

---

***PP-361***

## *Peculiarities of therapeutic approach in inflammatory bowel disease patients in a tertiary referral center from north-eastern Romania*

**Oana Cristina Petrea[1], Anca Trifan[1], Irina Girleanu[1], Catalin Sfarti[1], Laura Huiban[1], Ana-maria Singeap[1], Carol Stanciu[2]**

*[1]Grigore T. Popa University of Medicine and Pharmacy, Institute of Gastroenterology and Hepatology, Iasi, Romania*
*[2]Institute of Gastroenterology and Hepatology, Iasi, Romania*

***Background/Aims:*** Inflammatory bowel disease (IBD) is a chronic and heterogeneous disorder characterized by remitting and relapsing periods of activity. Although there has been much progress in the management of IBD with evolving therapies, the choice of an applicable therapy is one of many issues regarding these patients. Therefore, the treatment approach and follow-up of patients have undergone a significant change. The aim of this study was to assess the main treatment approach in patients with IBD.

***Materials and Methods:*** All cases of IBD hospitalized in our tertiary referral center from January 2012 to June 2017 were included in the study. Demographics, clinical characteristics and disease severity along with type of medication were assessed.

***Results:*** In this study we included 329 IBD patients, most of them males (58.97%), mean age 44.11±15.51, predominantly with ulcerative colitis (UC) (69.3%). The majority of IBD patients were treated with 5-aminosalicylates (5-ASA), most of them being with UC (76.17%). Corticosteroids were recommended in 209 (63.53%) cases, especially in patients with UC compared with those with Crohn's disease (CD) (61.72% vs. 38.26%). Immunomodulators were used in about 23.71% of all cases predominantly in CD patients (56.4% vs. 43.5%). Out of all 329 patients, 70 (21.28%) received biological therapy, with Adalimumab being the most used agent (66.2% vs. 33.8%).

***Conclusion:*** The treatment landscape for IBD is rapidly evolving with the recent validation of innovative biologics.

***Keywords:*** Inflammatory bowel disease, biologics, immunomodulators

---

***PP-362***

## *Neoplastic lesions of the colon in different age groups*

**Ovidiu Fratila, Tiberia Ilias, Roxana Brata, Cristian Hocopan**

*University of Oradea, Oradea, Romania*

***Background/Aims:*** Colorectal cancer screening guidelines recommend that healthy persons should start colonoscopy investigation at 50 years of age, due to the rising incidence of cancer and adenoma starting with this age.Aim: Adenoma and cancer detection and prevalence in symptomatic or asymptomatic patients in different age groups.

***Materials and Methods:*** We retrospectively reviewed the colonoscopies performed between January 2016-January 2019, as an extent of our previous research in Oradea Emergency Clinical County Hospital, 1st Internal Medicine Department; the selected age range was 40-49 years, 50-59 years, 60-69 years and over 70 years; the files of the patients were studied to search for indications of colonoscopy (rectal bleeding, anemia, weight loss, changes in bowel movements, family history of colon cancer, asymptomatic individuals) and results were processed statistically using SPSS 20.

***Results:*** We included 904 patients undergoing colonoscopies, 445males/459 females,563 from urban area and 341 from rural area. The overall pathology yields were 98 cancers,81 adenomas, (56 large>1cm),107 hyperplastic polyps; in individuals aged 40-49 years there were 6 cancers and 14 adenomas (4 large), in the 50-59 years group- 13 cancers and 17 adenomas (11 large), in the 60-69 years group-25 cancers and 23 adenomas (17 large) and in the over 70 tears group-54 cancers and 27 adenomas (24 large). No significant differences in lesions were observed among asymptomatic patients (p=NS).

***Conclusion:*** In our extended study, the research concluded our results that colonic cancer and large polyps were more frequentely encountered in the older groups or in those with positive family history; the prevalence of large polyps or cancer among the different age groups for asymptomatic individuals was similar; surprisingly 6 of 98 colonic cancers were diagnosed in asymptomatic subjects of the 40-49 group, this being an interesting finding that encourages us to start screening at earlier ages.

***Keywords:*** Colonic lesions, age

---

***PP-363***

## *Endoscopic cystogastrostomy in children: Experience of 34 procedures done in 30 children*

**Ujjal Poddar, Surender Kumar Yachha, Vijay Kumar Upadhyay, Basant Kumar, Anshu Srivastava**

*Sanjay Gandhi Post Graduate Institute of Medical Sciences, Uttar Pradesh, India*

***Background/Aims:*** Symptomatic or complicated pancreatic fluid collections in the form of walled-off necrosis and pseudocyst (acute and chronic both) require drainage. Endoscopic transmural drainage is the preferred method in adults, however, there is paucity of literature in children (case series of 7 and 9 cases). We therefore, analyzed our experience of 34 endoscopic cystogastrostomy done in 30 children (the largest series so-far).

***Materials and Methods:*** From June 2013 to June 2017 consecutive children (<18 years) who underwent endoscopic cystogastrostomy for pancreatic pseudocyst were included in this study. Endoscopic transmural cystogastrostomy was done using adult duodenoscope and standard technique of needle-knife puncture, tract dilatation with balloon and 1-2 double pig-tailed plastic stent (10F, 5cm) insertion was followed.

***Results:*** The procedure was attempted in 30 children, accomplished in 28 (technical success 93%) and clinically successful in 27 (90%). A total 32 procedures were done (single in 24 and two in 4) during the study period. The median age was 14 (range, 3 to 17) years and male to female ratio was 21:9. The commonest indication was compressive symptoms such as early satiety in 27 (90%), vomiting in 15 (50%), 2 children each had duodenal obstruction and infected pseudocyst. The etiology of pancreatitis includes, acute pancreatitis in 25 (idiopathic 18, biliary 3, post-traumatic 4) and chronic pancreatitis in 5. During the procedure fluid was found to have debris in 9 and pus in 3, hence, underlying WON was likely in these 12, rest had clear fluid. The procedure was safe with no mortality, had major complications in 2 (6.7%) [bleeding and pneumoperitoneum in 1 each, both resolved spontaneously) and minor complications such as minor ooze in 6 (20%) and infection in 5 (17%). Stents were removed in 25 (89%) after 12 (range, 7-20) weeks and got spontaneously migrated out in 3 (11%) cases. Over a median follow-up of 26 (range, 5-48) months following stent removal, there was no recurrence of pseudocyst in 25 (89%) and 3 (11%) had imaging evidence of recurrence of small and asymptomatic pseudocyst.

***Conclusion:*** Endoscopic cystogastrostomy is a safe and effective method of draining symptomatic/complicated pancreatic pseudocyst in children. The procedure carries no mortality and acceptable minor complications. Stents could be removed in all and the recurrence on follow-up was noted in just 11% of cases.

***Keywords:*** Pseudocyst, endoscopic cystogastrostomy, children, success, recurrence

***PP-364***

# *Portal vein cannulation: An unusual complication of endoscopic retrograde cholangiopancreatography*

**Eren Cankurtaran[1], Fatih Kıvrakoğlu[1], Yunus Halil Polat[1], Eyüp Selvi[2], Mustafa Tahtaci[1], Osman Ersoy[1]**

*[1]Ankara Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*
*[2]Bilkent City Hospital, Ankara, Turkey*

Portal vein cannulation is a rare complication of endoscopic retrograde cholangiopancreatography (ERCP). It has been reported that it occurs after endoscopic sphincterotomy or without prior sphincterotomy. In this case report, we aimed to present a patient who had portal vein cannulation during ERCP. A 72-year-old male patient with periampullary tumor liver metastasis was hospitalized for common bile duct stent replacement. ERCP was performed after preoperative preparations were completed. The papilla was seen edematous and tumoral. Furthermore two stents (10 Fr and 7 Fr) were seen which were extended from common bile duct to duodenum. These stents were removed by the snare. When wire-guided cannulation was achieved, injection of 10 mL contrast failed to opacify the biliary tree. After Contrast medium was injected through the catheter, wire-guided was seen in the portal vein (Figure 1). The procedure was terminated and abdominal computed tomography showed air in the intrahepatic biliary tract (Figure 2). The patient remained asymptomatic and was hemodynamically stable. He was observed and 2 d later had a repeat abdominal CT. The air was decreased in the intrahepatic biliary tract on the repeated abdominal CT. After that he was transferred to palliative service with the recommendation of oncology.

***Keywords:*** ERCP, portal vein cannulation, biliary tree

**Figure 1.** Guide-wire in the portal vein.

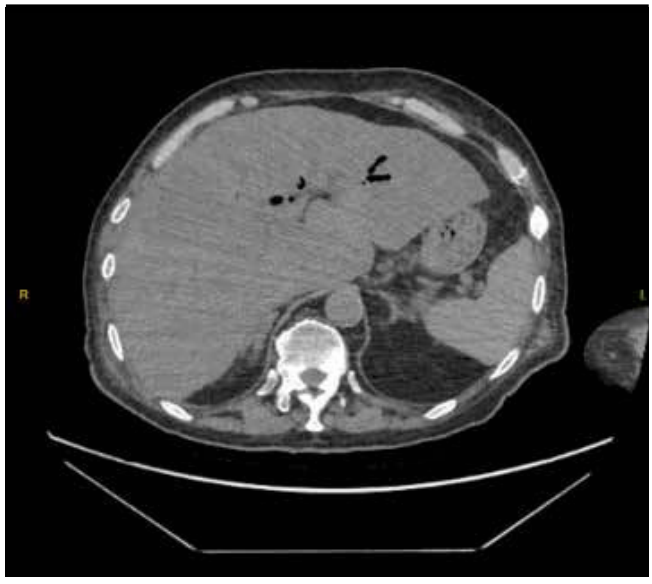


**Figure 2.** Air in the intrahepatic bilary tract at abdominal computed tomography. Portal vein cannulation usually occurs as a result of direct trauma to the papilla or mucosal and vascular laceration. In cases in which sphincterotomy was not performed, investigators have noted the portobiliary fistulas due to presumed tumor infiltration. Isolated portal vein cannulation has not been reported to result in mortality or serious morbidity. However, awareness of this rare complication is very important.

***PP-365***

## *First study of serrated polyps detection rate in the dominican republic*

**Fernando Contreras, Jose Adolfo Duran, Priscilla Abate, Cynthia Contreras, Paola Contreras**

*Centro de Gastroenterologia Avanzada, Santo Domingo, Dominican Republic*

***Background/Aims:*** Colorectal cancer is the third most common cancer worldwide, and approximately 95% originate from colorectal polyps. A serrated polyp is a lesion with a risk of malignization, and it has the peculiarity of being very similar to the normal epithelium of the colon, which makes diagnosis and excision through colonoscopy significantly difficult. There is no data in the Dominican Republic that describes serrated polyps and its risk of progression to colorectal cancer. Determine the detection rate of serrated polyps and compare it with the adenoma detection rate in colonoscopies performed in a private medical facility from January 2015 to March 2017.

***Materials and Methods:*** A descriptive observational study was used. Population: 1,185 patients who underwent colonoscopy in a private medical facility from January 2015 to March 2017.

***Results:*** Detection rate of serrated polyps was 6.13%; adenoma detection rate was 31.42%. Regarding the patients with serrated polyps: the percentage with serrated polyps in the proximal colon was 83.64%, in the distal colon 16.36%; percentage with <3 serrated polyps was 96.25%, with ≥ 3 was 3.75%; 37.50% male, 62.50% female; 16.25% <50 years old and 83.75% ≥ 50 years. Indication of the study: screening 38.75%, follow-up 35.00%, family history of colon cancer 12.50%, symptoms 8.75%, personal history of colon cancer 5.00%.

***Conclusion:*** The number of serrated polyps and patients with increased risk of CRC was significant, despite the fact that their detection rate was approximately 5 times lower than that of adenomas. Two factors demonstrate high risk of progression to colorectal cancer (CRC): percentage of patients with serrated polyps in the proximal colon and percentage of patients 50 years or older. Two factors demonstrate low risk of progression to CRC: percentage of patients with less than 3 serrated polyps and number of serrated polyps less than 1 cm.

***Keywords:*** Serrated polyps, detection rate, colorectal cancer

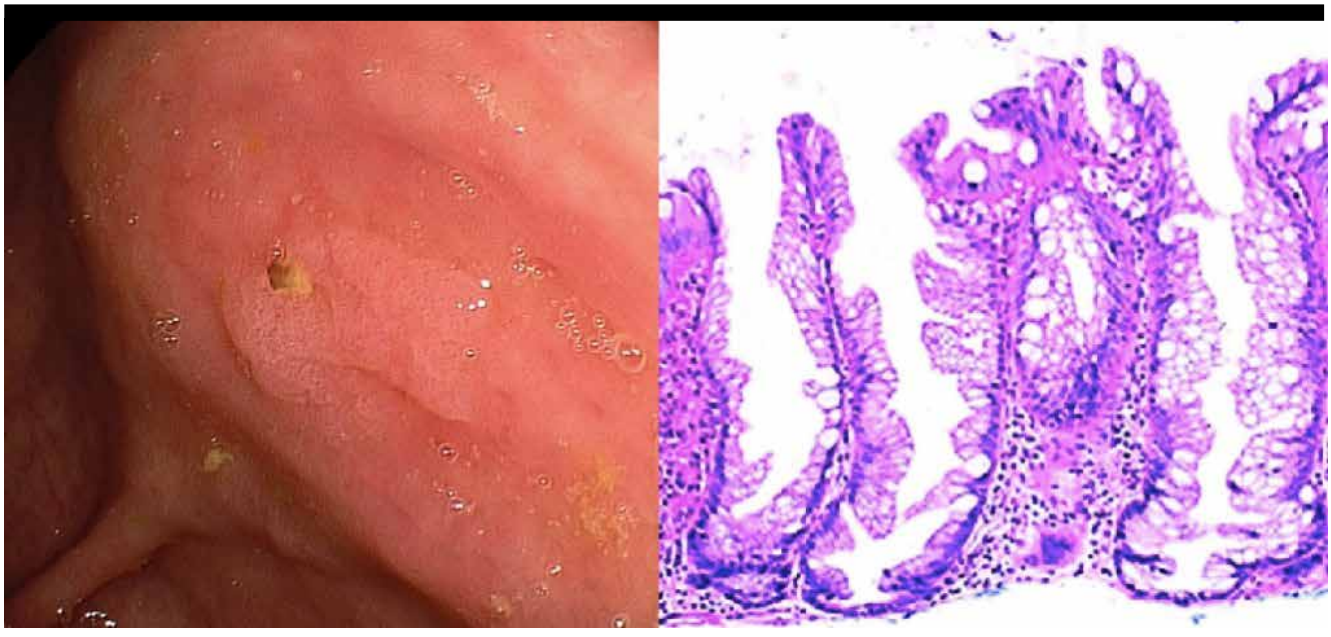


**Figure 1.** Serrated polyp endoscopic picture and microscopic crypt.

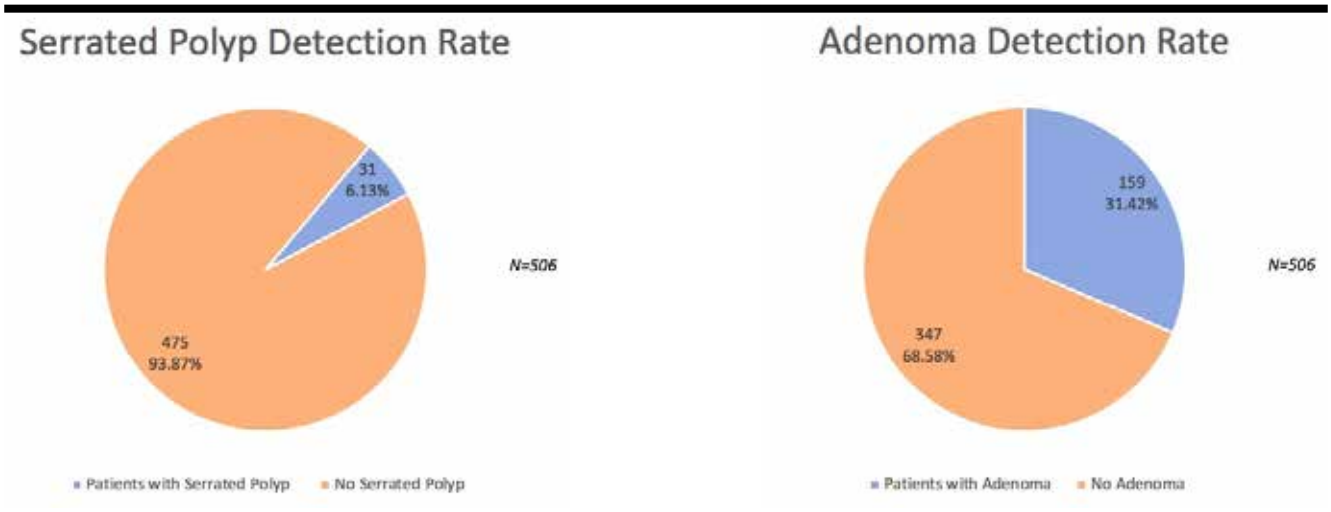



Figure 2.

***PP-366***

## *Microangiopathic hemolytic anemia in cirrhosis: A single centre prospective study*

B V Tantry[1], Apoorva Srijayadeva[2], Sandeep Gopal[1], Suresh Shenoy[1], Anurag Shetty[1]

[1]*Kasturba Medical College, Mangalore, Manipal Academy of Higher Education, Mangalore, India*
[2]*Indiana Hospital and Heart Institute, Mangalore, Mangalore, India*

***Background/Aims:*** Anemia is commonly seen in cirrhosis of liver whose etiopathegenesis is multifactorial. However Microangiopathic hemolytic anemia (MAHA) is a less frequent cause of anemia in cirrhotics. The study was done to identify the clinical profile of cirrhotic patients associated with MAHA.

***Materials and Methods:*** 200 patients with cirrhosis and anemia defined by Hemoglobin <12 gm% for women and <13gm% visiting KMC Hospital, mangalore were included in the study. MAHA was diagnosed by the presence of schistocytes on peripheral smear. The clinical profile of patients such as MELD score, Child–Turcotte–Pugh score, presence of sepsis, organ failure, etc were recorded. Statistical analysis was done with the aid of SPSS software using chi-square test for non-parametric data while ANOVA and students T-test were used for parametric data.

***Results:*** Microangiopathic haemolytic anaemia (MAHA) was seen in 5.5% (11/200) of the cirrhotic patients with anemia. Majority of patients with MAHA had severe liver dysfunction, with high MELD score (27.54±4.74) and CTP score (11.90±0.94). Liver cell failure was more in MAHA group as compared to Non-MAHA group. Multi organ dysfunction was seen in 64% (7 patients) of cirrhotics with MAHA. Evidence of sepsis was seen in 90.9% (10) of patients with MAHA. Mortality was high in patients with MAHA, 55% (6/11) of them dying within 1week.

***Conclusion:*** Microangiopathic haemolytic though seen rarely in cirrhotic patients it is usually seen in patients with advanced liver disease and is associated with high short term mortality.

***Keywords:*** Microangiopathic hemolytic anemia cirrhosis mortality

***PP-367***

## *How well does polyp detection rate correlate with adenoma detection rate?*

**Rajan N Patel, Sunghwan Hong, Nicole Gayle, Raunak Poonawala, Zohaib Tariq, Jonathan King, Kalpesh Besherdas**

*Royal Free London Nhs Trust, London, UK*

***Background/Aims:*** Adenoma detection rate (ADR) is a key performance indicator for colonoscopy as it correlates with diminished risk of interval colorectal cancer (CRC) and mortality. Assessment of the ADR can be time consuming as it requires histological assessment. Polyp detection rate (PDR) is a less cumbersome measure that does not require the linkage of endoscopy and histopathology results. We aim to assess whether PDR was an adequate substitute for ADR.

***Materials and Methods:*** A single centre, retrospective analysis of colorectal polypectomies performed at a tertiary London-based hospital Trust during a 6-month period (March to September 2018). Data was collected from the Unisoft GI Reporting Tool and electronic patient records (EPR). Statistical analyses included chi- square and student t-tests.

***Results:*** 637 polypectomies were performed on 333 patients (mean age 63.2 (23-89)) and were included in this study (380 patients diagnosed with colorectal polyps; 47 (12.4%) excluded as polyp not resected). Median number of polypectomies per patient 1 (1-10); median size 6mm (1-70 mm).

Histology confirmed that 232 (69.7%) patients had at least one adenoma resected. 57 (17.1%) patients had only hyperplastic polyps resected with 33 (57.9%) of these distal to the splenic flexure (10% of total patients undergoing polypectomy).

***Conclusion:*** Almost 1 in 5 patients undergoing polypectomy had resection of hyperplastic polyps only. 10% of patients in this cohort had a non-neoplastic polyp removed from the left colon with no risk of progression to CRC, potential complications from polypectomy and an increase in the number of unnecessary surveillance colonoscopies. This adds further strain to an already overburdened endoscopy service. Better bowel preparation appears to encourage the resection of hyperplastic polyps compared to adenomas. Correlation of endoscopist impression of adenoma is not 100% with histology and we would therefore not advocate the 'resect-and-discard' strategy in our unit. This data supports a business case for a 'polyp nurse' to assess polyps following histological analysis and risk stratify into the adenoma surveillance guidelines. We conclude that ADR does not correlate with PDR.

***Keywords:*** Colorectal polyps, adenoma detection rate, polyp detection rate

***Table 1.*** Adenoma versus Hyperplastic group; demographics and outcomes

| | ≥ 1 Adenoma (n=232) | Hyperplastic polyps only (n=57) | *p |
|---|---|---|---|
| Age, mean (range) | 65.8 (30-87) | 56.2 (26-89) | 0.00001 |
| Size (mm), mean (range) | 9.5 (1-50) | 5.2 (1-20) | 0.0002 |
| No. of polyps, mean (range) | 1.9 (1-10) | 1.6 (1-10) | 0.08 |
| Proximal to Splenic Flexure, n (%) | 155 (66.8) | 24 (42.1) | 0.0006 |
| Comfort score (0-2 pain episodes), n (%) | 200 (86.2) | 46 (80.7) | ns |
| Bowel Prep (Excellent or Good), n (%) | 159 (68.5) | 47 (82.5) | 0.04 |

***PP-368***

## *Pancreatic metastasis from hepatocellular carcinoma*

**Özlem Yönem[1], Ersin Tuncer[1], Necla Demir[2], Özgür Yeniova[1], Engin Altınkaya[1], Hilmi Ataseven[1], Erol Çakmak[1]**

*[1]Cumhuriyet University, Sivas, Turkey*
*[2]Sivas Medicana Hospital, Sivas, Turkey*
*[3]Tokat Gaziosmanpaşa University, Tokat, Turkey*

Hepatocellular carcinoma (HCC) is a highly malignant neoplasm often presenting at late stage and metastatic HCC to pancreas which is very rare can mimic primary pancreatic neoplasms. The patient was a 53 year-old female patient who was referred to our clinic from the oncology clinic of a private hospital. She had multiple hypoechoic lesions in the liver with the largest diameter of 7cm. The patient had already underwent liver biopsy to her lesions which had been diagnosed as hepatocellular carcinoma by pathology before referral. Her PET CT revealed 57x50x49mm mass in the tail of pancreas with irregular contours suggesting a primary pancreatic malignity. We performed EUS to the patient and found a hypoechoic lesion in the-corpus-tail part of pancreas with irregular margins. FNA of the lesion revealed pancreatic metastasis of hepatocellular carcinoma. This case illustrates the utility of FNA for diagnosing uncommon presentations of HCC and the importance of clinical history.

***Keywords:*** Hepatocellular carcinoma, metastasis, pancreas

---

***PP-369***

## *Colitis on CT-does this mean inflammatory bowel disease?*

**Rajan N Patel, Shashank Ramakrishnan, Ella-portia Veglio-taylor, Zohaib Tariq, Jonathan King, Kalpesh Besherdas**

*Royal Free London Nhs Trust, London, UK*

***Background/Aims:*** Cross sectional imaging is commonly used to assess the abdomen for a variety of symptoms. Colitis reported on CT has become a frequent indication for lower gastrointestinal endoscopy. The outcomes of performing colonoscopy for radiology reported colitis is not clearly known.

***Materials and Methods:*** A retrospective, single centre study of patients referred for a colonoscopy with the indication of abnormal imaging. Data was collected using the endoscopy software audit tool over a 12-month period (September 2017 to August 2018). Patients who had undergone an imaging modality other than CT and those with an overt colonic polyp or mass on CT were excluded from the analysis. Analyses were performed using chi-square and student t-test.

***Results:*** 249 patients (183 CT (73.5%), 66 CTVC (26.5%)) underwent a colonoscopy for CT evidence of mural thickening (218 (87.6%)), fat stranding (88 (35.3%)), inflammation (104 (41.8%)) or local lymph nodes (37 (14.9%)); median age 68 (IQR 53-79); median time from CT to colonoscopy 33 days (IQR 12.5-56.5). Initial indication for CT examination: Abdominal pain 112 (45.0%), Change in bowel habit 39 (15.7%), Malignancy 32 (12.9%), PR bleeding 13 (5.2%), Weight loss 9 (3.6%) and Other 44 (17.7%). 53 (21.3%) patients had completely normal colonoscopy. 111 (44.6%) had uncomplicated diverticulosis, 11 (4.4%) diverticulitis, 20 (8.0%) haemorrhoids and 37 (14.9%) colorectal polyps. 20 patients (8.0%) had endoscopic evidence of colitis; 14 (6%) histological evidence of colitis. 10 (4%) confirmed IBD at 6 months follow up (4 UC, 6 CD).

***Conclusion:*** Colitis reported on CT correlates with endoscopic colitis in only 8% of patients. Less than 5% are diagnosed with IBD at 6 months follow up. The correlation improves in younger patients and with shorter interval between CT and colonoscopy. One in five patients had completely normal colonoscopy. Fat stranding was an independent risk

factor for endoscopic colitis. Anaemia and raised CRP helps identify those at higher risk of malignancy whilst raised CRP alone shows a trend towards identifying true colitis. We conclude that the findings of colitis on CT does not imply IBD in the majority.

***Keywords:*** Colitis, CT, colonoscopy

***Table 1.*** Comparison of endoscopic diagnoses according to CT features and blood results

| | Normal (n=53) | Colitis (n=20) | Malignancy (n=21) | *p |
|---|---|---|---|---|
| Age, mean | 63.6 | 54.4 | 69.5 | <0.02 |
| Time to colonoscopy(days), mean | 45.3 | 24.5 | 24.9 | <0.04 |
| Mural thickening (%) | 48 (90.1) | 19 (95) | 20 (95.2) | ns |
| Fat stranding (%) | 14 (26.4) | 12 (60) | 9 (42.9) | <0.03 |
| Inflammation (%) | 16 (30.2) | 12 (60) | 9 (42.9) | 0.06 |
| Lymph nodes (%) | 4 (5.7) | 8 (40) | 11 (52.4) | <0.00006 |
| Haemoglobin (g/L), mean | 128.0 | 123.8 | 112.2 | 0.005 |
| CRP (mg/L), mean | 29.8 | 55.5 | 68.1 | 0.10, <0.05 |

***PP-370***

## *Enthesithis, obscured symptom in paediatric IBD?*

**Nelgin Gerenli, Betül Sözeri**

*Health Sciences University, Ümraniye Training Hospital, İstanbul, Turkey*

***Background/Aims:*** Enthesitis is an inflammation where the ligaments, tendons, and joint capsule attach to the bone and may accompany inflammatory bowel diseases (IBD). Untreated enthesitis may cause osteopenia, erosions, and soft tissue calcifications. In children, enthesitis is usually diagnosed by clinical findings including localized pain, tenderness, and swelling. Magnetic resonance imaging (MRI) and ultrasound (US) with power Doppler are also used. The aim of this study was to determine whether enthesitis is frequently seen in pediatric IBD as in adult IBD.

***Materials and Methods:*** The study included 27 patients (13 girls; mean age 14.9±1.9 years), 5 Crohn's disease, 17 Ulcerative colitis and 5 indeterminate colitis. All patients were examined by the same paediatric rheumatologist with standardized technique examination of entheses bilaterally including both tuberositas of the humerus, quadriceps at superior patella, patellar ligament at inferior patella, Achilles tendon, and plantar fascia at the calcaneus. Those with symptoms or sign of enthesitis underwent articular USG. The diagnosis of enthesitis is made on the basis of physical examination, Doppler USG.

***Results:*** Enthesitis was positive in 13 of total 27 patients. At the time of the examination mean total WBC count was 9340(±3450), haemoglobin 12.1gr/dL (±3.4), platelets 384000(±155000), erythrocyte sedimentation rate (ESR) was 22 (±19). In all patients with enthesitis HLA-27 was negative and p-ANCA positivity was not detected. ANA was positive in two patients (at levels of 1/40 and 1/80), (Table 1).

***Conclusion:*** Enthesitis is a extra-intestinal manifestation of paediatric IBD and is associated with increased musculoskeletal pain, influencing treatment decisions. Future studies should evaluate the functional and long-term impact of enthesitis on children with IBD.

***Keywords:*** IBD, enthesitis

***PP-371***

## *Are GI cancers being diagnosed from outside the urgent cancer referral pathway?*

**Rajan N Patel, Ami Mehta, Aishani Sachdeva, Sunghwan Hong, Zohaib Tariq, Jonathan King, Kalpesh Besherdas**

*Royal Free London Nhs Trust, London, UK*

***Background/Aims:*** The UK lags behind Europe in the diagnosis, treatment and survival rates of cancer. To diagnose cancer early, patients with alarm symptoms from primary care are referred on a Two week wait (2WW) urgent pathway. Previous data indicates that the majority of cancers diagnosed in the UK are from outside the 2WW pathway. However, demand for upper and lower GI endoscopy via the 2WW has risen dramatically above and beyond the steady increase in GI cancer incidence. We aimed to study the diagnostic pathways via which GI cancers are diagnosed.

***Materials and Methods:*** We reviewed the common luminal upper and lower GI cancers diagnosed at endoscopy at a single centre between February 2017 and September 2018 via Unisoft GI Reporting Tool. Known malignancies and diagnoses made at other Trusts were excluded (n=72). Retrospective analysis of 317 patients with 332 GI cancers was performed.

***Results:*** 332 GI cancers (oesophagus 44 (13.9%), stomach 21 (6.6%), duodenum 6 (1.9%), colon 174 (54.9%), rectum 87 (27.4%)). Mean age 71.1 (range 24-97), Female 133 (42.0%). Median time to diagnosis (i.e. referral/presentation to endoscopy) was 22 days (IQR 14 to 34). Referral pathways included: 202 (63.7%) GP Target 2WW, 45 (14.2%) Inpatient, 30 (9.5%) Urgent 2WW from clinic/hospital discharge, 21 (6.6%) Abnormal imaging, 17 (5.4%) Routine clinic, 2 (0.6%) Surveillance. Only 48 (15.1%) patients went Straight To Test (STT) whereas 198 (62.5%) patients were seen in clinic first (153 (76%) of the GP Target 2WW group). The mean time to diagnosis in those referred via the GP Target 2WW was 25.4 days (STT) versus 32.2 days (clinic review prior), (p=0.05).

***Conclusion:*** We conclude that 2 out of 3 GI cancers were diagnosed via the 2WW pathway but only one third of gastric cancers. Of all patients referred via the 2WW, three-quarters had a clinic review prior to endoscopy which resulted in a 7 day delay in cancer diagnosis compared to STT patients. We conclude that more patients with cancer are diagnosed on the 2WW pathway than previously documented and triaging patients STT speeds up the diagnosis. We recommend that the majority of 2WW patients be triaged STT so that earlier diagnosis of cancer may result in improved survival and reduce the gap compared to our European counterparts.

***Keywords:*** GI Cancer, cancer pathways, endoscopy

***Table 1.*** Pathways to diagnosis for individual GI cancers (+ STT/clinic/A&E)

| | All GI Cancers (n=332) | Oesophagus n=44 | Gastric n=21 | Colon n=174 | Rectum n=87 | p |
|---|---|---|---|---|---|---|
| Age (mean, s.d) | 71.1 (13.5) | 73.8 (11.6) | 71.8 (17.8) | 71.5 (13.2) | 68.0 (13.7) | 0.10 |
| Time to diagnosis (median, IQR) | 22 (14-34) | 19 (7-28) | 11 (5-28) | 24.5 (17-38.75) | 23 (16-33) | 0.27 |
| GP 2WW Pathway (%) | 202 (63.7) | 25 (56.8) | 7 (33.3) | 109 (62.6) | 69 (79.3) | 0.0003 |
| STT (%) | 48 (15.1) | 9 (20.5) | 2 (9.5) | 24 (13.8) | 13 (14.9) | 0.63 |
| Curative Treatment (%) | 204 (64.4) | 13 (29.5) | 2 (9.5) | 129 (74.1) | 65 (74.7) | <0.00001 |

***PP-372***

## *Rectal EUS findings of our rectum cancer patients within the last two years*

**Özlem Yönem[1], Birsen Yücel[1], Eda Erdiş[1], Özgür Yeniova[2], Hilmi Ataseven[1], Engin Altınkaya[1], Erol Çakmak[1]**

[1] Cumhuriyet University, Sivas, Turkey
[2] Tokat Gaziosmanpaşa University, Tokat, Turkey

***Background/Aims:*** Treatment and prognosis of patients with rectal adenocarcinoma (RAC) are dependent on accurate locoregional staging.We aimed to document the rectal EUS results of our rectum cancer patients concerning the last two years.

***Materials and Methods:*** Rectum cancer patients who underwent rectal USG between the time period March 2017-April 2019 were included in the study.

***Results:*** Characteristics of our patients are given in Table 1. Our patients were predominantly male and in the middle age group. Rectal cancer was located mainly in the mid-rectum. Nearly all of our patients were staged as uT3 and received neoadjuvant chemotherapy. Only 36.4% of our patients underwent surgery.

***Conclusion:*** Accurate preoperative staging of rectal cancer is vital in directing subsequent management and endoscopic ultrasound has emerged as an integral part of staging of rectal cancer.

***Keywords:*** Rectum cancer, EUS

***Table 1.*** Characteristics and findings of study

| | |
|---|---|
| Age (in years, range 40-88) | 63±12 |
| Sex | |
| Female n (%) | 9 (40.9) |
| Male n (%) | 13 (59.1) |
| Tumor distance from anal verge (in cm, range 0-15) | 5.9±3.7 |
| Largest size of the tumor in PET CT (in cm, range 3-14) | 6.2±2.5 |
| Invasion depth of the tumor in EUS (in cm, range 0.8-9) | 3±1.8 |
| Neoadjuvant chemotherapy/radiation | |
| Completed/started n (%) | 19(86.4) |
| Indicated but not administered n (%) | 3 (13.6) |
| Surgery | |
| Postneoadjuvant therapy n (%) | 8 (36.4) |
| Not performed n (%) | 14(63.6) |
| Rectal EUS staging | |
| UT2 n (%) | 2 (9.1) |
| UT3 n (%) | 20 (90.9) |
| UN1 n (%) | 19 (86.4) |
| UN2 n (%) | 3 (13.6) |

***PP-373***

## *The effect of antithrombotic drug use on gastrointestinal bleeding*

**Gamze Serin Özel[1], Selçuk Dişibeyaz[2], Erkin Öztaş[2], Dilek Oğuz[3]**

[1]*Department of Internal Medicine, Osmangazi University School of Medicine, Eskişehir, Turkey*
[2]*Department of Gastroentorology, Osmangazi University School of Medicine, Eskişehir, Turkey*
[3]*Department of Gastroentorology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*

***Background/Aims:*** Arterial and venous thrombosis is one of the most common cause of the mortality and morbidity.The most known side effects of anticoagulant and antithrombotic drugs is bleeding.The aim of the present study is to evaluate the effect of these therapies on clinical, laboratory parameters and morbidity and mortality rates in the patients presenting with gastrointestinal system(GIS) bleeding.

***Materials and Methods:*** Between January 2014 and January 2018, 499 patients presenting with GIS bleeding were included in this retrospective study. Patients were divided into two groups; patients using anticoagulants and/or anti-platelet drugs were group-1 and group-2 consisted of patients who were not using any of these drugs. Patients' clinical laboratory and endoscopy findings, the need of intensive care unit (ICU) and erythrocyte suspension replacement (ESR), length of hospitalization and re-bleeding rates were evaluated and compared between two groups. Also during the follow up period; morbidity and as a primary endpoint, one month mortality rates of the groups were compared.

***Results:*** Erosive gastritis was the most common upper GIS endoscopic finding in both groups. Hemoglobin values at the time of admission were 9.2 gr/dL in group-1 and 10.1 in group2 ($p<0.05$). Need of ICU 62% in group-1 and 38% in group-2 were found at admission ($p<0.05$). At the time of admission, the need of ESR was 61.4% in group-1 and 38.6% in group-2 ($p<0.05$). The Charlson comorbidity index (CCI) was found to be 5±1.5 in group-1 and 4±1.5 in group-2, and to be higher in group-1 when compared with group2 ($p<0.05$).The Admission Rockall Score(ARS) was 3±1 in group-1 and 4±1 in group-2, the Endoscopic Rockall Score (ERS) was 5±2 in group-1 and 6±1.5 in group-2 ($p<0.05$). The most common colonoscopic finding was rectal ulcer in group-1 and hemorrhoid in group-2. The mean hospital stay (6±2 days in group-1 and 6±1 days in group-2) rebleeding after discharge (9.6% in group-1 and 5.2% in group-2) and one-month mortality rates(9% in group-1 and 5.6% in group-2) were not statistically different between two groups. Mortality rates were correlated with CCI, with both ARS and ERS and the mean hospital stay ($p<0.05$).

***Conclusion:*** According to our results antithrombotic drug use had no effect on one-month mortality and morbidity rates among patients with GIS bleeding. However rapid erythrocyte transfusion and intensive care unit need due to lower levels of hemoglobin and higher CCI should be kept in mind.

***Keywords:*** GIS bleeding, antithrombotic drugs, mortality

---

***PP-374***

## *Direct oral anticoagulants in acute upper gi bleeding – what is the impact on endoscopy efficiency?*

**Saadiq Moledina, Rajan Patel, Karmun Ang, Suraj Pathak, Rigers Cama, Mohamed Adam Ali, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** Acute upper GI bleeding (AUGIB) is a common medical emergency with 10% mortality. Direct oral anticoagulants (DOACs) are associated with an increased risk of AUGIB but the length of stay, re-bleed risk and mortality following a bleed has not been fully ascertained as experience is lacking compared to traditional vitamin K antagonists. British Society of Gastroenterology (BSG) guidelines recommend DOAC be with-held for 48hrs prior to a high risk endoscopic procedure but this advice does not apply for non-elective cases. We aimed to compare the influence of DOACs on factors affecting endoscopy and post-endoscopy outcomes.

***Materials and Methods:*** A retrospective data collection of all emergency gastroscopies was performed at a London-based endoscopy site between 6/9/2018 and 8/5/2019. Gastroscopies performed for non-AUGIB indications and patients who developed an AUGIB as an inpatient were excluded. Electronic patient records (EPR) and Unisoft GI Reporting Tool were used to identify patients taking DOACs and collect data on admission, endoscopy and discharge times. An unpaired T- test was applied comparing patients on DOACs vs. those not taking a DOAC. Equal variances were assumed in both groups. A p value of $<0.05$ was deemed significant.

***Results:*** 131 new admissions for AUGIB were identified during the study period. 18 (13.7%) were taking a DOAC at the time of bleed. Mean age of patients on a DOAC was 83.8 vs. 68.0 in those not taking a DOAC ($p<0.01$). Mean admission to scope time in the DOAC cohort was 109.3 vs 34.1 hours when not taking a DOAC ($p<0.009$). Patients taking a DOAC showed a trend towards a longer length of stay vs. those not taking a DOAC (1161.2 vs 376.5 hours, $p=0.06$). Mean procedure time was

21.7 minutes (DOAC) vs 22.0 minutes (No DOAC), p=0.94. There were no significant differences in the presenting complaint (haematemesis (p=0.12), melaena (p=0.17) or anaemia (p=0.45)) in those taking a DOAC.

***Conclusion:*** Over 10% of patients admitted with AUGIB were taking a DOAC. AUGIB patients that were taking a DOAC were a significantly older cohort. Taking a DOAC significantly increased the admission to scope time and resulted in a trend towards longer length of stay. Need for endotherapy, re-bleed risk and inpatient mortality was not associated with taking a DOAC. Given the more widespread use of DOACs and prevalence in AUGIB patients, separate guidelines on the management of this sub-group may optimise peri-procedural efficiency.

***Keywords:*** AUGIB, DOAC, endoscopy efficiency

***Table 1.*** Comparison of DOAC vs no DOAC

| | DOAC (mean value) | No DOAC (mean Value) | p |
|---|---|---|---|
| Age | 83.83 | 67.96 | 0.01 |
| Admission to scope time (hours) | 109.3 | 34.05 | 0.001 |
| Scope to discharge time (hours) | 687.5 | 330.7 | 0.35 |
| Length of stay (hours) | 1161.17 | 376.48 | 0.06 |
| Re-bleed at 72 hours (%) | 0 | 3 | 0.49 |
| Endotherapy (%) | 17 | 20 | 0.77 |
| Procedure time (minutes) | 21.67 | 21.96 | 0.94 |
| Delayed endoscopy>24 hours (%) | 56 | 46 | 0.48 |
| Inpatient mortality (%) | 6 | 2 | 0.33 |

***PP-375***

## *Adherence to therapy inflammatory bowel disease observed in Moscow clinical scientific center*

**Oleg Knyazev, Anait Babayan, Anna Kagramanova, Dmitriy Kulakov, Asfold Parfenov**

*Moscow Clinical Research Center, Moscow, Russia*

***Background/Aims:*** To assess adherence to the treatment of diseases in patients with Crohn (CD) and ulcerative colitis (UC), observed in the department of inflammatory bowel disease.

***Materials and Methods:*** The study included 55 (45.8%) men and 65 (54.2%) women older than 18 years, 70 (58.3%) patients with UC, 50 (41.7%) with CD, who attend treatment and examination in the department of inflammatory bowel diseases. Patient adherence to therapy is evaluated using the Moriska-Green test, the results of which all patients were divided into two groups: the first group-patients with low adherence treatment (LAT); the second group-patients with high adherence to treatment (HAT).

***Results:*** It was shown that patients with high adherence to therapy were 78 (65.0%) versus 42 (35.0%), respectively (p<0.001). In the group of patients with HAT, women predominate-26 (61.9%) versus 16 (30.1%) men (p<0.001). In the group of HAT, patients with CD 30 (71.4%) also prevail against 12 (28.6%) patients with UC (p<0.001). It was established that in the group of HAT, patients receiving 5-aminosalicylic acid preparations (5-ASA) 23 (54.8%) and biological preparations (BP)-15 (35.7%) predominate. In the LAT group, patients with the necessary immunosuppressors and glucocorticosteroids prevail-54 (69.3%), against patients receiving 5-ASA and BP-24 (30.7%) (p<0.001). The frequency of exacerbations of diseases was higher in the LAT group-52 (66.6%), versus 13 (30.9%) in the HAT group (p<0.001). The frequency of surgical interventions

in patients with CD was higher in the LAT group-15 (75.0%) versus 5 (16.6%) in the HAT group (p<0.001). A significant difference between the groups was noted when it was possible to obtain drugs in the preferential provision (38.5%) in the HAT group versus 40 (51.3%) LAT groups (p<0.001). It was shown that the patient has no age, no educational and socio-economic status.

***Conclusion:*** Among patients with IBD, examined in the department of inflammatory bowel diseases, 65% have a low commitment to taking prescribed medications. Low adherence of treatment is associated with factors such as the use of systemic immunosuppressants and glucocorticosteroids in therapy, complications during CD, the frequency of exacerbations of IBD. Female sex is reliably associated with high adherence to treatment, the presence of drugs in the preferential provision.

***Keywords:*** Adherence, inflammatory bowel diseas

---

***PP-376***

## *Electrophysiological changes and mucosal permeability in esophageal epithelium before and after stretta treatment for gastroesophageal reflux disease*

**Serhat Bor, Pelin Ergun, Sezgi Kipcak**

*Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey; Ege Reflux Study Group*

***Background/Aims:*** Stretta is an option for patients with gastroesophageal reflux disease (GERD), offering an alternative to invasive surgery, endoscopic therapies or continue PPI therapy. We aim to investigate the electrophysiological differences and diffusion characteristics as a reflection of tissue integrity within esophageal mucosa before and after stretta.

***Materials and Methods:*** Patients with predominantly typical symptoms and true nonerosive reflux disease or LA-esophagitis A were included. GERD and quality of life questionnaires, high resolution esophageal manometry, 24 h impedance-pH monitoring, upper gastrointestinal endoscopy with distal esophageal biopsies were performed in nine patients before stretta (4 men, 44.5±10.4 years). 3-4 biopsies were put into the chambers to measure the transepithelial resistance (TEER), potential difference (PD) and tissue permeability via fluorescein diffusion within 2 hours as well as evaluation of dilated intercellular spaces with light microscopy. The Stretta procedure performed under sedation with regular protocol without any complication. Three weeks of PPI therapy was given to all patients following the procedure than stopped. All patients were symptom free or have less than 50% of typical symptoms at the end of the 8 weeks of follow up. Approximately two months after stretta, upper GI endoscopy repeated, esophageal biopsies were taken. All results were compared with 23 healthy controls (7 men; 41.9±10.8 years). 24 h impedance-pH monitoring was performed in eleven out of 23 HC.

***Results:*** TEER of pre-stretta group was significantly lower than healthy controls (HC) (p=0.037). But no significance was found between pre-stretta and post stretta group (p=0.17) even though there was a great margin (124.6±55.7 vs 157.2±61.3). No difference was shown in post stretta group compared to HC (166.8±46.2) (p=0.59). Mucosal permeability in pre-stretta group was significantly lower than post-stretta group (p=0.006) and HC (p=0.015) while there was no significance between post stretta and HC (Table).

***Conclusion:*** Electrophysiological results indicate that epithelial permeability and possibly mucosal damage has recovered after stretta treatment within esophageal epithelium. Those changes might be explained with less reflux load at the distal esophagus. A direct effect of the procedure inside the tissue is a low possibility since application effects only a small area.

***Keywords:*** Stretta, epithelial resistance, permability, gastroesophageal reflux disease

| | TEER (Ohms) | Flourescein permeability (pmols) |
|---|---|---|
| Pre-stretta | 124.6±55.7* | 67.2±31.5* |
| Post-stretta | 157.2±61.3 | 28.5±18.2** |
| Healthy controls | 166.8±46.2 | 36.9±13.5 |

(*; p<0.05 pre-stretta vs HC, **; p<0.05 pre-stretta vs post-stretta)

***PP-377***

## *Endothelial lipase and carbohydrate parameters in patients with non-alcoholic fatty liver disease and hypertension*

**Anna Bashkirova, Oleg Babak**

*Kharkiv National Medical University, Kharkiv, Ukraine*

***Background/Aims:*** Non-alcoholic fatty liver disease (NAFLD) is one of the most actual problems of modern medicine. Triggers, associated with the development of NAFLD and metabolic disorders, are considered such parameters as oxidative stress, inflammation, dyslipidemia, insulin resistance (IR), abdominal obesity, low adiponectin levels, endothelial dysfunction and postprandial dyslipidemia. Endothelial lipase (EL) is identified as a new member of the family of triglycerides and is very similar to lipoprotein lipase and hepatic lipase, but is a more sensitive marker of phospholipid hydrolysis, and these facts suggest that EL is a new marker of cardiovascular risk, which is closely related to dyslipidemia and IR.

***Materials and Methods:*** 36 patients with NAFLD on the backdrop of hypertension and overweight have been examined. Given the fact that the presence of type 2 diabetes mellitus (DM2) plays a pathogenic role in the formation of liver steatosis, we conducted the distribution of the examined patients into the following groups: group 1-with liver steatosis, hypertension and DM2 (n=10); group 2-with liver steatosis and hypertension without DM2 (n=10); group 3-with hypertension without increased NAFLD liver fat score (n=16). Control group 4 consisted of 20 healthy individuals. The patients were comparable by sex and age. The average age was [53±7.5]. The severity of liver steatosis was determined by the NAFLD index liver fat score and Fib-4. The concentration of EL serum was determined by ELISA kits reagents "Aviscera Bioscience INC" (USA).

***Results:*** NAFLD index liver fat score was [4.48±3.21] in group 1, [3.69±2.95] in group 2 and [-0.308±1.14] in group 3. Fib-4 was [1.36±0.63], [1.14±0.72] and [1.07±0.36] in groups 1, 2 and 3 respectively. All patients with NAFLD on the background of hypertension and DM2 (group 1) had significantly (p<0.001) higher hyperinsulinism ([32.27+4.71] vs. [20.75+9.5] mkU/mL) and significantly (p<0.001) increased values of index HOMA-IR ([9.52+4.21] vs. [4.76+2.23]) compared with group 2. In patients with DM2 HbA1c is higher than in ones without DM2, regardless of the severity of steatosis since no significant difference is found among these groups (p=0.97). The level of EL is significantly (p<0.001) higher in group 2 [11.709±3.22] ng/mL compared with control group 4 [8.231±2.474] ng/mL and group 3 [9.56±2.15] ng/mL. Highest levels of endothelial lipase were found in group 1 [11.84±3.801] ng/mL (p<0.05). Correlation analysis between the HbA1c and EL levels showed a reliable direct relationship between the parameters (Spearman R=0.386, p<0.05).

***Conclusion:*** Therefore, the levels of EL in patients with hypertension in combination with the severity of liver steatosis are prognostic for cardiovascular complications. At the same time prediction deteriorates with additional independent risk factors such as the presence of DM2, which is directly correlated with the severity of liver steatosis.

***Keywords:*** NAFLD, hypertension, endothelial lipase, diabetes melitus

***PP-378***

## *Anemia in inflammatory bowel diseases*

**Sara Abouelhak, Wafaa Hliwa, Mohamed Tahiri Joutei Hassani, Fouad Haddad, Ahmed Bellabah, Wafaa Badre**

*IBN Rochd*

***Background/Aims:*** Anemia is the most frequent extra-intestinal complication of inflammatory bowel diseases (IBD). Its screening and treatment have long been underestimated despite its impact on the quality of life of these patients. The purpose of this work is to review the prevalence, mechanisms and response to treatment during IBD.

***Materials and Methods:*** Prospective descriptive and analytical study, conducted from January 2015 to July 2017, including 109 patients with IBD followed in our university hospital. All patients underwent a battery of tests including: blood count test, a martial assessment with C reactive protein (CRP). The dosage of vitamin B12 and B9, was asked in case of macrocytic anemia, extensive ileal damage or ileal resection. The assessment of disease activity was based on Harvey Bradshaws score for Crohns disease (CD), and the Mayo clinical score for ulcerative colitis (UC).

***Results:*** Of the 109 patients included, 60 had Crohn disease (CD) and 49 had ulcerative colitis (UC). The mean age of our patients was 33.9 years with a female predominance. 63.3% of patients suffering from CD had active disease and 36.6% were in remission. For UC, 75.5% of the patients had active disease and 24.4% were in remission. Ileocecal localization was most common in MC and pancolitis was most common in UC. The prevalence of anemia was 66.1%. Anemia was mild in 36.7% of cases, moderate in 19.3% and severe in 10.1%. Anemia was hypochromic microcytic in 33% of cases, normochromic normocytic in 30.3% of cases and macrocytic in 4.6% of cases. Iron deficiency anemia was the predominant mechanism in 36.7% of cases, followed by mixed anemia in 15.4% of cases, inflammatory anemia in 6.4% of cases and drug induced anemia in 3.7% of cases. Analytically, women have more anemia compared to men, with a statistically significant difference (CD: p=0.015) and (UC: p=0.004). Colonic involvement in CD and pancolitis in UC was correlated with the occurrence of anemia with (p=0.008) and (p=0.049), respectively. And contrary to CD (p=0.19), active UC was correlated with the occurrence of anemia (p=0.015).Therapeutically, all our patients had received dietary advice; 52 patients were put on oral iron; 30 patients received intravenous iron infusions; 15 patients had received a blood transfusion; two of the patients had vitamin B12 deficiency treated with intravenous supplementation.78.5% of patients had responded well to treatment and 12.7% relapsed; no case of resistance was observed.

***Conclusion:*** In our study, anemia was present in two-thirds of IBD patients. Its mechanism is complex dominated by martial deficiency. Its presence is related to sex, location and activity of the disease.

***Keywords:*** Anemia***,*** inflammatory bowel diseases***,*** Crohn disease***,*** ulcerative colitis

---

***PP-379***

## *Non-specific upper gi mural thickening on CT-IS it just from peristalsis?*

**Rajan N Patel, Raunak Poonawala, Ruhaid Khurram, Neel Jain, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** British Society of Gastroenterology (BSG) published guidance on the indications for diagnostic endoscopy in 2013, including 'abnormal or suspicious findings on CT imaging'. Non-specific upper GI mural thickening on CT is a common abnormal finding raising the suspicion of upper GI malignancy. The correlation between CT mural thickening in the upper GI tract and endoscopic diagnosis of malignancy is not clearly known.

***Materials and Methods:*** Retrospective single centre study of referrals for gastroscopy with the indication of abnormal imaging (n=147). Data was collected using the endoscopy software audit tool over a 3-year period (2016 to 2018). Patients with a CT finding of mural thickening were included for analysis (n=59). Statistics were performed using Welchs t-test.

***Results:*** 59 patients underwent gastroscopy for CT reported mural thickening: oesophageal 20 (34%), GOJ 9 (15%), gastric 23 (39%), pyloric 4 (7%), duodenal 5 (8%) and jejunal 1 (2%). Median time from CT to endoscopy was 21 days (IQR 12-54). Median age was 77 (IQR 62-83). 11 (19%) patients had a normal gastroscopy, 24 (41%) showed inflammatory changes (oesophagitis or gastritis), 20 (34%) had evidence of a hiatus hernia, and 5 (8%) had benign polyps. 5 (9%) had a histological diagnosis of gastric adenocarcinoma, 4 (7%) of Barretts oesophagus and 1 (2%) of squamous dysplasia. The 5 patients with adenocarcinoma could not be reliably identified by indication for imaging (2 for abdominal pain, 1 for weight loss, and 2 for non GI or systemic related symptoms). The mean haemoglobin for the patients with malignancy was 104 g/L vs 125 g/L for the overall study group (p=0.13, NS). The mean albumin for the patients with malignancy was 37.6 g/L vs 38.4 g/L for the overall study group (p=0.81, NS).

***Conclusion:*** Upper GI mural thickening on CT cannot be dismissed. Despite oesophagitis, gastritis and hiatus hernia making up most endoscopic diagnoses (75%), it correlated with malignancy, dysplasia or metaplasia in 10/59 (17%) patients in this study. Patients with malignancy could not be accurately differentiated by indication for imaging or by biochemical markers. We conclude that there is good concordance in pathology detection at gastroscopy following findings of thickening on CT scan. We recommend gastroscopy is performed in every case when this abnormality is detected incidentally.

***Keywords:*** CT, GI cancer, gastroscopy

---

***PP-380***

## *Efficacy and tolerance of the first moroccan generics of direct acting antivirals in the treatment of viral hepatitis C*

**Khaled Abdelwali, Iman Benelbarhdadi, Nawal Lagdali, Camelia Berhili, Mohamed Borahma, Fz Ajana**

*CHU Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** In Morocco, for 3 years, we have our own generic two molecules: Sofosbuvir and daclatasvir.The objective of this work is to evaluate the efficacy of generic DAAs (virological response and tolerance) made locally for the treatment of HCV infection.

***Materials and Methods:*** This is a prospective study conducted in the our department including 89 patients followed for HCV infection, all genotypes combined (G1, G2, G3, G4), naive, relapsers, non-responders or intolerant to INF, regardless of the degree of fibrosis. The exclusion criteria were: pregnancy, breastfeeding, advanced cardiopulmonary pathologies and neoplastic pathologies. The therapeutic plan proposed to our patients were: Sofo-Dacla, Sofo-Dacla-Riba and Sofo-Ledi. All our patients have benefited from a pre-therapeutic assessment including: biological and virological assessment, evaluation of fibrosis (Fibroscan, Fibrotest, liver biopsy), ultrasonography, fibroscopy, Screening of HCC (F4), ECG, chest Rx. All of our patients had regular follow-up at W1, W2, W4, W8, W12, W24, W48 with monitoring of clinical, biological tolerance and biochemical, virological response.

***Results:*** The total number of patients under DAA was 75. A female predominance was noted in 59.1% with a sex ratio F/H of 1.78. The average age of our patients was 56.61 years old. Treatment-naive patients accounted for 53.15%, relapses were 15.7%, non-responders were 15.7%, 05 patients were intolerant (INF, Rib) and 04 unspecified patients. The risk factors for contamination were: unknown in 61 patients, 14 patients had unsanitary dental care, 13 transfusions, 05 surgeries, 03 dialysis, 01 tattooing, Regarding comorbidities: 14 patients had diabetes, 20 hypertension, 06 cases of dysthyroidism, 02 cases of heart disease, 05 cases of hematopathies, 07 patients had asthma, one patient had an associated Crohns disease and one patient had a liver transplant. Two patients had HBV co-infection treated with Tenofovir. In our series, Genotype 1

was predominant and was found in 41 patients or 65% (30 G1b, 01G1a, 27 not specified), G2 in 20 patients or 23.6%, G4 in 04 patients or 4.4%, G3 at a patient and not specified at 05 patients, 21 patients (23.6%) had minimal fibrosis (F0-F1), 21 patients (23.6%) had moderate fibrosis F2, 11 (20.3%) patients had severe fibrosis F3, 13 patients (21, 4%) were cirrhotic, 02 patients had decompensated cirrhosis, 07 indeterminate. The therapeutic protocol proposed to our patients: 62 patients under Sofo-Dacla, 08 under Sofo-Dacla-Riba, and 01 under Sofo-Ledi. The virological response was 100% for patients with FM-F1-F2, and 98.8% for those with advanced fibrosis (F3, F4). Side effects observed during treatment: Asthenia in one patient, Insomnia in one patient, headache in two patients, digestive disorders in one patient, anemia in two patients, one patient presented with HCC and one patient died from metastatic prostate cancer**.**

***Conclusion:*** The constant 100% efficacy of the Moroccan generic DAAs (confirmed by our 98% virological response study) implies an important role of the screening and treatment of all infected patients before the stage of advanced fibrosis.

***Keywords:*** Direct acting antivirals, sofusbuvir, daclatasvir

---

***PP-381***

## *Management of large colorectal polyps at an elective endoscopy site-outcomes from a dedicated polyp multidisciplinary meeting*

**Rajan Patel, Ahmed El-masry, Kwok Tang, Akeel Alisa, Saif Musa**

*Royal Free London Nhs Trust, London, UK*

***Background/Aims:*** The British Society of Gastroenterology (BSG) produced guidelines to provide a framework for the management of large (>2cm) non-pedunculated colorectal polyps (LNPCPs). This includes a recommendation to have access to a polyp multidisciplinary meeting (MDM) to discuss complex polyps i.e. those with increased risk of malignancy, risk of incomplete resection and high size/morphology/site/access (SMSA) scores. We aimed to evaluate patients diagnosed with large colorectal polyps at an elective ('cold') endoscopy unit.

***Materials and Methods:*** Single centre retrospective study at an elective London-based hospital during a two-year period (January 2017-December 2018). Patient and endoscopic data were identified via Unisoft GI Reporting Tool and electronic patient records (EPR). Complexity was assessed by SMSA score and the role of the polyp MDM was evaluated.

***Results:*** 97 patients with colorectal polyps>2cm were identified. Median age was 71 years [IQR 61-78]; 52/97 (54%) were male. Cases were diagnosed by gastroenterologists [62/97 (64%)], surgeons [29/97 (30%)] and nurse specialists [6/97 (6%)]. Most polyps were non-pedunculated (LNPCPs) [69/97 (71%)]. Median size and SMSA score were 30mm (IQR 25-40) and 3 (IQR 3-4), respectively. The commonest sites were sigmoid colon [23/97 (24%)], ascending colon [18/97 (19%)], caecum [17/97 (19%)] and rectum [14/97 (14%)]. The majority of polyps were discussed at polyp MDM, 65/97 (67%). Forty-three [43/65 (66%)] were referred for endoscopic mucosal resection (EMR),11/65 (17%) surgical resection [8/11 (73%) adenocarcinoma], 4/65 (6%) for endoscopic submucosal dissection (ESD) and 4/65 (6%) were deemed not fit for polypectomy. 75/97 (77%) patients underwent EMR; 32/75 (43%) were en-bloc. Most EMRs were by specialist endoscopists [62/75 (83%)]. Post polypectomy bleeding (PPB) occurred in 2/75 (3%) patients. The 30-day mortality and perforation rates were zero.

***Conclusion:*** Over seventy percent of large polyps detected were LNPCPs and two-thirds of large polyps were discussed in a dedicated polyp MDM. This enabled informed consensus decision making with appropriate triage to endoscopic resection by a specialist endoscopist, surgery or conservative management. Outcomes at 1-month post-procedure were excellent. We conclude that large polyp resections can safely be undertaken by experienced endoscopists in a structured elective setting. Discussion at MDM aids management decisions and facilitates appropriate access/allocation to specialist endoscopists.

***Keywords:*** Colorectal polyps, MDT, polypectomy

***PP-382***

## *Acute upper gastrointestinal bleeding at a 'hot' site – what factors influence endoscopy?*

**Saadiq Moledina, Rajan Patel, Cama Rigers, Mohamed Adam Ali, Suraj Pathak, Richard Hall, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** Acute upper gastrointestinal bleeding (AUGIB) is a medical emergency with a 10% mortality risk. Although an aging co-morbid population is probably cancelling out benefits from advances in therapeutic endoscopy, the organisation of care is also likely to be an important factor in this high demand setting. Dividing endoscopy services into two separate sites: elective ('cold' site) and emergency ('hot' site) is a novel approach that avoids competition for endoscopy slots, thus optimising patient outcomes. A recent UK multi-centre audit, including both 'hot' and 'cold' sites, found the majority of centres did not meet national standards for time to endoscopy. We aimed to describe time to endoscopy and outcomes at an exclusively 'hot site' and identify predictors of delayed endoscopy (>24 hours).

***Materials and Methods:*** Retrospective data collection of all emergency gastroscopies was performed at a 'hot' London-based endoscopy site between 6/9/2018-8/5/2019. The 'hot' site provisions a session of endoscopy dedicated to inpatients during Monday to Friday, and on-call emergency theatre access during weekends if required. No elective endoscopies are performed at this unit. Non-AUGIB gastroscopies were excluded. Electronic patient records (EPR) and Unisoft GI Reporting Tool were used to collect data on admission, endoscopy and discharge times. A decision tree classifier was used to select features contributing to delayed endoscopy and a multiple logistic regression model utilized these shortlisted factors to assign values of importance with regard to delayed endoscopy. For suspected AUGIB, commonest primary presentations were melaena (43%), haematemesis (23%), anaemia (17%) and coffee ground vomit (13%). Multiple logistic regression found that patients admitted with anaemia ($p<0.001$, OR 1.54) and weekend admissions ($p<0.005$, OR 1.34) were independent predictors for delayed endoscopy.

***Results:*** 151 gastroscopies were performed during the study period (132 new admissions (87.4%), 19 in-hospital bleeds (12.6%)). 55% of patients had an endoscopy within 24 hours.

***Conclusion:*** Almost 90% of emergency gastroscopies at our 'hot' site is performed for direct AUGIB admissions. Those admitted with suspected AUGIB undergo endoscopy sooner than those with an inpatient bleed. Primary presentation with anaemia and weekend admissions are associated with delayed endoscopy. The majority of patients at our exclusively 'hot' site did not have a delayed endoscopy.

***Keywords:*** Hot vs Cold site, AUGIB, endoscopy efficiency

***Table 1.*** Endoscopy times: Admission vs Inpatient AUGIB

| | Admission with suspected AUGIB | Inpatient suspected AUGIB | p |
|---|---|---|---|
| Mean Time to endoscopy (hours) | 34.1 (Range: 1.8 - 175.2) | 49.5 (Range: 1.1-336.1) | 0.03 |

***PP-383***

## *Helicobacter pylori eradication in cambodia*

**Nobukazu Hokamura**

*Sunrise Japan Hospital, Japan*

***Background/Aims:*** In Cambodia, Helicobacter pylori (HP) infection seems widely spread, but there is neither standard regimen nor statistical data of its eradication. We treated patients with HP infection initially with international standard amoxicillin and clarithromycin regimen. However, this regimen was not so effective, and then changed to 3 antibiotics regimen with amoxicillin, clarithromycin and metronidazole. We would like to report result of HP eradication in our hospital and discuss about appropriate regimen for HP eradication in Cambodia.

***Materials and Methods:*** Reviewed patients 1) who had amoxicillin and clarithromycin regimen from November 2017 to October 2018 (Group A), and 2) who had amoxicillin, clarithromycin and metronidazole regimen from November 2018 to March 2019 (Group B). Detail of regimen is shown in table 1. All patients had stool test 6 weeks later to confirm HP infection. Patients who had history of eradication were excluded. Eradication rate was historically compared with these 2 groups.

***Results:*** 147 patients were enrolled in Group A and 117 in Group B. There were no statistical difference in average age and sex ratio in 2 groups. Eradication result is shown in table 2. Three antibiotics regimen including metronidazole was statistically effective than 2 antibiotics regimen (39% in Group A and 57% in Group B) although missing rate was high (39% in Group A and 35% in Group B). Within followed up patients, eradication rate was 67% and 88%, respectively. Only 1 patient could not finish regimen due to adverse effect in Group B.

***Conclusion:*** This is the first report of HP eradication in Cambodia. Three antibiotics regimen seemed effective and feasible, and could be used as standard in Cambodia. There are several limitations in our result; 1) this is retrospective study, 2) only one institute result, and 3) missing rate was high. To fix this 3 antibiotics regimen as standard for eradication, improvement of follow up and prospective multi-institutional study are demanded.

***Keywords:*** Helicobacter pylori, eradication, cambodia

***Table 1.*** Regimens for eradication

| | | |
|---|---|---|
| Amoxicillin and clarithromycin (Group A) | | |
| Amoxicillin | 2,000 mg/day | 10 days |
| Clarithromycin | 1,000 mg/day | |
| Lansoprazole | 60 mg/day | |
| Amoxicillin, clarithromycin and metronidazole (Group B) | | |
| Amoxicillin | 2,000 mg / day | 10 days |
| Clarithromycin | 1,000 mg / day | |
| Metronidazole | 1,000 mg / day | |
| Lansoprazole | 60 mg / day | |

***Table 2.*** Result of HP eradication

| | Eradicated (%) | Failed (%) | NA (%) | p |
|---|---|---|---|---|
| Group A | 58 (41) | 29 (20) | 55 (39) | 0.03 |
| Group B | 67 (57) | 9 (8) | 41 (35) | |

***PP-384***

## *Odynophagia-is it a symptom worthy of urgent gastroscopy?*

**Rajan N Patel, Shahab Haghollahi, Ralph Canda, Kalpesh Besherdas**

*Royal Free London Nhs Trust, London, UK*

***Background/Aims:*** Odynophagia is defined as a painful sensation in the oesophageal region that occurs in relation to swallowing. Endoscopy is the gold standard investigation for the diagnosis of mucosal lesions in the oesophagus. Unlike dysphagia, which has historically been an alarm symptom of oesophageal cancer, odynophagia does not form part of the suspected upper gastrointestinal (GI) cancer referral in the UK. We aimed to compare the cancer detection rate of odynophagia to the standard red flag indications for gastroscopy.

***Materials and Methods:*** We performed a retrospective analysis of all patients who underwent upper GI endoscopy for upper GI two-week-wait (2WW) criteria and compared this with odynophagia over a 14-year period (2005-2019) at a tertiary London-based hospital Trust. Data was obtained from the Unisoft Endoscopy reporting software. The findings at endoscopy for all indications were scrutinised.

***Results:*** During the study period, a malignant oesophageal tumour was identified in 21 patients (4%) endoscoped for odynophagia (total 530 patients endoscoped for odynophagia). This compared to Anaemia (17936 endoscoped and 94 tumours identified (0.5%)); Dysphagia (10954 endoscoped and 562 tumours identified (5%)); Nausea and vomiting (N&V) (6380 endoscoped and 64 tumour identified (1%)); Weight loss (6157 endoscoped and 119 tumours identified (2%)). Of the 530 patients who were endoscoped for odynophagia during the study period, 240 (45%) had oesophageal mucosal lesions: Reflux oesophagitis 193 (36%); Barretts oesophagus (26 (5%); Malignant tumour 21 (4%). 32 (6%) had an oesophageal stricture.

***Conclusion:*** From this study, almost half of patients endoscoped for odynophagia have a positive endoscopic mucosal abnormality. 4% of patients endoscoped for odynophagia had oesophageal cancer compared with 5% of dysphagia patients. Anaemia (0.5%), weight loss (2%) and N&V (1%) all have inferior cancer pick up rates. We recommend that odynophagia be re-classified as an 'alarm symptom' and those presenting with this significant symptom undergo an urgent upper GI endoscopy to define the exact mucosal abnormality and exclude oesophageal cancer.

***Keywords:*** Odynophagia, oesophageal cancer, gastroscopy

***Table 1.*** Indication for gastroscopy and percentage of cancers detected

| Indication for gastroscopy | Number of endoscopies | Malignant tumour identified (%) |
|---|---|---|
| Odynophagia | 530 | 4 |
| Dysphagia | 10954 | 5 |
| Anaemia | 17936 | 0.5 |
| Nausea/Vomiting | 6380 | 1 |
| Weight loss | 6157 | 2 |

***PP-385***

## *Neuroendocrine tumor of distal common bile duct: A rare case*

**Özlem Yönem, İsmail Şalk, Özgür Yeniova, Engin Altınkaya, Hilmi Ataseven**

*Cumhuriyet University, Sivas, Turkey*

Neuroendocrine tumors of the extrahepatic bile ducts are extremely rare neoplasms arising from endocrine cells and have variable malignant potential. They most commonly occur in young females and usually present with painless jaundice. Here we present a middle-aged female patient without jaundice who was diagnosed as neuroendocrine tumor of the distal common bile duct. A 57 year-old female patient was referred to our clinic for her elevated liver enzymes and fever. She also had diabetes mellitus for 8 years. Her CBC at admission was: wbc: 19.350/μL, Hb: 13.3g/dL. She had elevated liver enzymes with ALT:84, AST: 49, GGT: 615U/L, Tbil: 0.68mg/dL. MRCP revealed dilated common bile duct and intrahepatic ducts in which a filling defect located in the distal common bile duct was detected suggestive of a stone or mass. EUS was performed which showed an hypoechoic mass in the distal common bile duct. ERCP with sphinterotomy was performed and biopsy was taken from the mass which revealed a Grade 2 well-differentiated neuroendocrine tumor. Her PET CT showed no metastasis and she underwent surgery. Extrahepatic bile duct neuroendocrine tumors are difficult to preoperatively diagnose because of usual lack of hormonal symptoms, their rarity and absence of detectable serum markers. However it should be considered in the differential diagnosis of filling defects in MRCP.

***Keywords:*** Neuroendocrine tumor, common bile duct

---

***PP-386***

## *Photographic documentation of upper gastrointestinal landmarks at gastroscopy: How good is it?*

**Rajan N Patel, Sarah Christie, Ahmed El-masry, Ralph Canda, Kalpesh Besherdas**

*Royal Free London Nhs Trust, London, UK*

***Background/Aims:*** The British Society of Gastroenterology (BSG) published a position statement in view of performance variability of high-quality gastroscopy and an unacceptable failure rate to diagnose cancer at endoscopy. This set out the minimum expected standards in diagnostic upper gastrointestinal endoscopy. One recommendation is that photo-documentation should be made of relevant anatomical landmarks. This practice encourages mucosal cleansing, mucosal inspection and ensures a complete examination. European Society of Gastrointestinal Endoscopy (ESGE) guidelines describe a systematic approach to photo-documentation with a recommendation of eight anatomical landmarks to improve diagnostic endoscopy quality. The aim of this study was to retrospectively assess the photo-documentation at gastroscopy in clinical practice and compare this to the recommended sites as per the ESGE guidelines.

***Materials and Methods:*** Single centre, retrospective analysis of 250 consecutive gastroscopies in a district general hospital endoscopy unit in London over a two week period from 2nd April 2019. The gastroscopy reports were scrutinized for photographic evidence of the anatomical landmarks. The images captured on the Unisoft GI Reporting Tool were analysed and compared to the recommended ESGE guidelines. The patient comfort scores during the procedures (0=no discomfort, 1=one or two episodes, 2=more than 2 episodes, 3=significant discomfort) were also examined in relation to number of photographs obtained.

***Results:*** Of the 250 gastroscopies performed, the eight anatomical landmarks were photographed during only 33 procedures (13%). In these 33 procedures the patient comfort scores were>1 (more than two episodes of discomfort) in 3 patients (9%) compared with 60 (28%) in the 217 patients with suboptimal photo-documentation (p=0.02). In the 33 procedures where all the landmarks were photographed; 22 patients (66%) had conscious sedation, 11 (33%) patients had xylocaine throat spray.

***Conclusion:*** Photographic evidence of anatomical landmarks as per ESGE guidelines is only documented in 13%. Patient comfort and procedures under conscious sedation increase compliance with optimal photo-documentation. Photographic documentation improves the diagnostic quality of endoscopy and acts as a medico-legal record of an adequate procedure. There is much room for improvement in the photographic documentation of anatomical landmarks during gastroscopy.

***Keywords:*** Gastroscopy, photo-documentation, guidelines

***Table 1.*** Frequency of anatomical sites photographed during gastroscopy

| Anatomical site | Site photographed, n (%) |
|---|---|
| Upper Oesophagus | 77 (31) |
| Gastro-Oesophageal | 178 (71) |
| Fundus in retroflexion | 126 (50) |
| Body of stomach | 130 (52) |
| Incisura in retroflexion | 70 (28) |
| Gastric Antrum | 148 (59) |
| Duodenal bulb | 98 (39) |
| Duodenum second part | 178 (71) |

***PP-387***

## *Measures to reduce post-polypectomy bleeding in pedunculated polyps-does an endoscopic clip help?*

**Saadiq Moledina, Richard Hall, Ralph Canda, Rigers Cama, Suraj Pathak, Rajan Patel, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** Immediate and delayed post-polypectomy bleeding (PPB) is a serious complication after endoscopic removal of large pedunculated polyps (PP). Options to decrease the risk of bleeding include injecting the stalk with adrenaline, placing endoscopic clips across the stalk (before or after the polypectomy) and placement of a nylon loop around the stalk. The principle of closing a defect to reduce complications is well established but the cost effectiveness of prophylactic clipping remains controversial. Currently no consensus guidelines exist.

***Materials and Methods:*** We aimed to investigate the use of endoscopic clips during polypectomy of PP>10mm and assess its association with PPB. A large retrospective study across two sites at a tertiary London-based hospital Trust was performed. Endoscopy software was used to identify PP>10mm in size during a 5-year period (January 2014-March 2019). Patients not undergoing polypectomy were excluded. Immediate Bleeding (IB) and Delayed Bleeding (DB) were defined as bleeding within 0-24 hours and 24 hours-14 days respectively.

***Results:*** 895 polypectomies for PP were identified (mean age 65.3 (range 22-94), Female 325 (35.8%). Mean PP size 16.18 mm. 575 (64.2%) in sigmoid colon. 866 (96.8%) hot snare polypectomy. 354 (39.6%) injected with adrenaline. 21 (2.4%) cases of IB were identified. All were identified intra-procedure and all except 1 were managed endoscopically with an EC (95.0%). 8 (38%) patients with IB had EC + adrenaline applied. There were no cases of IB where a prophylactic EC was applied and no subsequent cases of DB in the IB cohort. One IB case could not be controlled with an EC (perforation requiring surgical intervention). 9 (1.0%) cases of DB were identified (1 EC (0.34%) vs. 8 no EC (1.3%)). There were no DB cases in all hot snare polypectomies where adrenaline and EC were applied.

***Conclusion:*** EC's are used in approximately 1/3$^{rd}$ of patients undergoing polypectomy in a cohort of almost 900 PP. Use of EC is associated with larger polyp size and concurrent use of adrenaline injection. IB and DB rates are low, 2.4% and 1% respectively. 95% of IB cases were treated effectively with an EC and achieved haemostasis. There were no cases of IB where an EC was used prophylactically. There remains considerable variation in practice with regards to EC use. We recommend the use of prophylactic EC's for PP. Further feasibility studies to determine the cost-effectiveness of prophylactic clipping are required.

***Keywords:*** Endoscopic clip, Pedunculated polyp, post-polypectomy bleeding

***Table 1.*** Bleeding complications according to use EC

| | Endoscopic Clip (n=294) | No Endoscopic Clip (n=601) | p* |
|---|---|---|---|
| Size (mm) | 17.64 | 15.48 | <0.0001 |
| Hot Snare (%) | 284 (96.6) | 582 (96.8) | 0.87 |
| Adrenaline injection (%) | 168 (57.1) | 182 (30.2) | <0.0001 |
| Immediate bleeding (%) | 0 (0) | 21 (3.49) | 0.001 |
| Delayed bleeding (%) | 1 (0.34) | 8 (1.34) | 0.16 |

***PP-388***

## *Post-colonoscopy colorectal cancers-should we be aspiring to better targets?*

**Rajan N Patel, Revati Kumar, Ruhaid Khurram, Laura Hickmott, Kar Mun Ang, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** The British Society of Gastroenterology (BSG) and UK Joint Advisory Group (JAG) on GI Endoscopy have developed quality assurance measures and key performance indicators for the delivery of colonoscopy within the UK. One of these includes aspiring to a target of <5% post-colonoscopy colorectal cancers (PCCRC) at 3 years.

***Materials and Methods:*** A retrospective study across two sites at a tertiary London-based hospital Trust. Endoscopy software was used to identify all new colorectal cancers diagnosed during colonoscopy during a 16 month period (May 2017 to September 2018). Interrogation for a prior colonoscopy within 3 and 5 years of the date of each colorectal cancer diagnosis was performed. PCCRC rate was defined as the proportion of PCCRC diagnoses amongst all CRC cases within a 3 year period. We analysed demographics, time interval (initial to diagnostic colonoscopy) and colonoscopist performing the procedure (physician vs. surgeon). Quality of bowel preparation was scrutinised in the PCCRC cases (excellent, good, fair, inadequate).

***Results:*** We identified 282 cases of colorectal cancer diagnosed during colonoscopy in the study period. There were a total of 8 cases of PCCRC within 3 years giving our Trust a PCCRC rate of 2.8%. Mean age of patients with a PCCRC diagnosis was 75.8 (64-88). Mean interval from initial to diagnostic colonoscopy in PCCRC cases was 2.08 years (0.92-3). Of the 8 patients with PCCRC; 1 was Dukes' A, 4 were Dukes' B2, 2 were Dukes' C1 and 1 was Dukes' C2. 7 of the 8 cases (87.5%) were colonoscopies performed by surgeons or external agency endoscopists. 4 of the 8 cases (50%) had less than good bowel preparation. Retroflexion in the rectum was not performed in 6 of the 8 cases (75%). When PCCRC diagnoses were extended to within 5 years the PCCRC rate was 4.3%.

***Conclusion:*** Our study shows that we are within the quality standards for PCCRC set by the relevant governing bodies. Root cause analyses identified caecal, sigmoid and anastomotic lesions as high risk sites for missed cancers as well as omission of retroflexion in the rectum. Accepting less than good bowel preparation is also a factor in half of PCCRC cases. Only 1 patient had an endoscopically resectable lesion at diagnostic colonoscopy but there were no patients with distant metastases. In view of advances made in the quality of colonoscopy training and enhanced endoscopic technology, we suggest raising the bar with regards to acceptable PCCRC by either lowering the target or increasing the time frame to 5 years.

***Keywords:*** Colonoscopy, colorectal cancer, quality standards

***PP-389***

## *Isolated terminal ileitis at colonoscopy – does ulceration predict Crohn's disease?*

**Rajan N Patel, Kar Mun Ang, Saadiq Moledina, Ralph Canda, Saif Musa, Akeel Alisa, Kwok Tang**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** Faecal calprotectin (FC) is a biomarker that is elevated in active inflammatory bowel disease (IBD) but is more sensitive in colonic compared with small bowel IBD. Ileo-colonoscopy is usually performed to confirm a diagnosis of IBD, but isolated non-specific terminal ileitis is often inconclusive despite biopsy. We explored the the presence of macroscopic terminal ileum (TI) ulceration in predicting Crohn's disease, over and above endoscopic terminal ileitis alone.

***Materials and Methods:*** We performed a retrospective review at a London district general hospital. Unisoft GI reporting tool software was used to identify all endoscopic cases of isolated terminal ileitis (i.e. normal colon) diagnosed at colonoscopy over a 4 year period (January 2015 to December 2018). Known cases of Crohn's disease were excluded. Faecal calprotectin, CRP and histology were noted. We used>150.

***Results:*** 139 cases of isolated terminal ileitis were identified. 65 cases were excluded as they were known Crohn's disease. 74 cases were included for analysis (mean age 43.9, female 44 (59.5%). 38 (51.4%) had a faecal calprotectin performed of which 27 (71.1%) had a FC>150. Median CRP 4 (range 0–220). Histology demonstrated normal mucosa in 16 (21.6%), non-specific inflammation in 45 (60.8%), ulceration 9 (12.2%) and granulomas 1 (1.4%). Macroscopic terminal ileum ulcers were present in 60 (81.1%) but only 9 of these had histological evidence of ulceration (15%). A new diagnosis of Crohn's disease was subsequently made in 15 patients (20.3%). Binary logistic regression showed an odds ratio of 1.28 (p=0.016, CI 0.45–0.047) in the TI ulcers + FC>150 group vs. No TI ulcers + FC <150.

***Conclusion:*** 1 in 5 patients with isolated terminal ileitis are subsequently diagnosed with Crohn's disease and almost 90% of these new cases have a faecal calprotectin>150. There is poor correlation between endoscopic and histological terminal ileum ulceration. There is a significant association that terminal ileal ulceration in combination with a faecal calprotectin>150 increases the likelihood of a new diagnosis of Crohn's disease.

***Keywords:*** Terminal ileitis, Crohns disease, colonoscopy

| | TI ulcers + FC>150 (n=21) | No TI ulcers + FC <150 (n=53) | p |
|---|---|---|---|
| Age (mean, IQR) | 34.8 (24.5-41.5) | 47.5 (33-60) | 0.0009 |
| Female (%) | 11 (52.4%) | 33 (62.3) | 0.43 |
| CRP>5 | 10 (47.6) | 14 (26.4) | 0.07 |
| New diagnosis CD | 8 (38.1%) | 7 (13.2%) | 0.016 |

***PP-390***

## *Surveillance colonoscopy in inflammatory bowel disease – are we running on time?*

**Rajan N Patel, Louis Tapper, Holly Lyne, Saadiq Moledina, Rigers Cama, M Adam Ali, Richard Hall, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** Surveillance for colorectal cancer (CRC) is necessary in patients with inflammatory bowel disease (IBD). Patients with ulcerative colitis (UC) have a similar CRC risk to those with Crohn's colitis (CC). British Society of Gastroenterol-

ogy (BSG) guidelines from 2010 outlined recommendations for screening including surveillance intervals and pancolonic dye spraying with targeted biopsies. We aimed to identify reasons why appropriate surveillance is not being performed as advised including the role of poor bowel preparation and disease activity.

***Materials and Methods:*** Retrospective study of all IBD surveillance colonoscopies performed over a 7 year period (2011 to 2018) across two sites at a tertiary London-based hospital Trust. Endoscopy software (Unisoft GI reporting tool) and electronic patient records (EPR) were used to extract data regarding patient demographics and procedural factors that may contribute to suboptimal surveillance.

***Results:*** 214 patients underwent surveillance colonoscopies for IBD during the study period. 91 excluded as they were diagnosed prior to the year 2000 (i.e. more than 10 years before the revised BSG guidelines) and 30 excluded due to a diagnosis of PSC or insufficient data available. 93 patients were included for analysis (mean age 48.5 (range 22–89), female 48 (51.6%)). Median duration of disease 12 years (IQR 10–16). Distribution of disease: 17 proctitis (18.3%), 22 left sided colitis (23.7%), 29 extensive colitis (31.2%), 20 Crohn's colitis (21.5%) and 5 unknown (5.4%). 26 screening colonoscopies (28.0%) were performed prior to 10 years of diagnosis (i.e. too early) and a further 22 screening/surveillance colonoscopies (23.7%) were performed after the recommended interval (i.e. too late). Dye spray was performed in 2 patients (2.2%). Poor bowel preparation and active disease was cited as a reason for not dye spraying in 4 cases (4.3%). No reason was given in 87 cases (93.5%). Targeted biopsies were performed in 24 patients (25.8%) and random biopsies in 56 (60.2%).

***Conclusion:*** IBD surveillance colonoscopies are only performed at the correct time interval in approximately 50% of cases with up to a quarter being performed too soon and a quarter being performed too late. Pan-colonic dye spray is used in only 2% and targeted biopsies are taken in only 1 in 4 patients. Poor bowel preparation and disease activity are not limiting factors in the use of dye spray. Organisational factors such as sufficient time allocated to dye spray colonoscopy along with endoscopist skill may be contributing factors.

***Keywords:*** Surveillance colonoscopy, IBD, dye spray

---

***PP-391***

## *Missed upper gi cancers after previous gastroscopy – what rate is acceptable?*

**Rajan N Patel, Laura Hickmott, Kar Mun Ang, Revati Kumar, Ruhaid Khurram, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** Early detection of upper GI cancers is necessary to optimise outcomes as late diagnosis carries a poor prognosis. Post colonoscopy colorectal cancer (PCCRC) rate is a quality assurance measure that defines an acceptable miss rate of <5% at 3 years but an equivalent standard does not exist for the upper GI tract. We aim to describe missed opportunities for earlier diagnosis of upper GI cancers at our Trust and investigate contributing factors.

***Materials and Methods:*** We performed a retrospective study across two sites at a tertiary London-based hospital Trust. Endoscopy software (Unisoft GI reporting tool) was used to identify all new oesophageal, gastric and duodenal cancers diagnosed during gastroscopy during an 18 month period (January 2017 to August 2018). Interrogation for a prior gastroscopy within 3 years of the date of each cancer diagnosis was performed. We analysed demographics, time interval (initial to diagnostic gastroscopy), photo-documentation, sedation rates and endoscopist performing the procedure.

***Results:*** We identified 90 cases of upper GI cancer diagnosed during gastroscopy in the study period (53 oesophageal (58.9%), 26 gastric (28.9%), 11 duodenal (12.2%)). There were 10 cases of post gastroscopy cancer (PGC) within 3 years giving our Trust a miss rate of 11.1% (consistent with the rate of 11.3% from a recent meta-analysis). Median age of patients with PGC was 78 (range 47 – 94), female 7/10 (70%) and interval between gastroscopies was less than or equal to 12 months for 6/10 (60%). Type of cancers: 7 oesophageal (70%), 2 gastric (20%) and 1 duodenal (10%). Photo-documentation was absent in 6/10 (60%), conscious sedation was not used in 5/10 (50%) and 8/10 (80%) were performed by consultants.

***Conclusion:*** Our study shows that our Trust has a post gastroscopy cancer miss rate of 11.1% which is comparable to that published in a recent meta-analysis. More than half the PGCs occur within 12 months of the prior gastroscopy and photo-documentation is missing in 60%. Female gender is associated with cancer diagnosed after previous gastroscopy and there is non-significant trend towards older age. We recommend the introduction of UK guidelines on acceptable upper GI cancer miss rates (as per colorectal cancer key performance indicators) to drive better standards in upper GI endoscopy.

***Keywords:*** Gastroscopy, missed cancers, guidelines

| | Post gastroscopy cancer (n=10) | No previous gastroscopy (n=80) | *p |
|---|---|---|---|
| Age (median, range) | 79 (47-94) | 72 (24-97) | 0.33 |
| Gender (Female, %) | 7 (70) | 23 (28.8) | 0.03 |

***PP-392***

## *Cholestatic jaundice caused by common bile duct polyp*

**Gde Somayana, Idn Wibawa**

*Division of Gastroentero-Hepatology, Department of Internal Medicine, Sanglah General Hospital, Denpasar, Bali, Indonesia*

A common bile duct polyp is very rare. Most CBD polyp can become malignant. Histopathological examination is importan to distinguish between benign and malignant polyp. Case description. A 68-year-old male patient came with upper right abdominal pain that accompanied by jaundice. On physical examination was found just jaundice. Laboratory results: a total bilirubin: 5.47 mg/dL, ALP: 547 U/L, GGT: 1413 U/L, HBsAg and AntiHCV non reactive. Abdominal USG: dilatation of IHBD and EHBD, enlargement of GB, cholelithiasis and CBD stone (1.45cm). CT scan: dilatation of IHBD, cystic duct and CBD, isoechoic mass at distal CBD. ERCP results: the papilla was edema, dilatation of IHBD, CBD, there was a filling defect at the distal of CBD. Bile duct clearance was done after performing sphingterotomy, and some small black stones and a pedunculated polyp were came out. Polyp biopsy was done and the plastic biliary stent (10 Fr 6.5 cm) was inserted. Patient refused surgical procedure to removed the polyp. Biopsy results: tissue coated by columnar epithelium, cells gland and lymphoplasmatic inflammatory cells infiltration, some of epithelial cells underwent severe dysplasia. Patient came back a year later without a complaint, there was no jaundice. We planned to do ERCP again to stent removal. The second ERCP results: there was no pedunculated polyp, plastic stent was clogged and we removed it. Discussion. The treatment of choice this CBD polyp was a resection. The polyp was not found when performed second ERCP, probably because of the polyp to be necrosis due to the stent pressure to the polyp stalk in the CBD.

***Keywords:*** Cholestatic jaundice, CBD polyp, ERCP

***PP-393***

## *The role of single operator peroral cholangioscopy for the diagnosis and treatment of intraductal papillary neoplasm of bile duct*

**Jong Ho Moon[1], Yun Nah Lee[1], Hee Kyung Kim[2], Jae Keun Park[1], Tae Hoon Lee[3], Sang-woo Cha[4], Young Deok Cho[4], Sang-heum Park[3]**

*[1]Digestive Disease Center and Research Institute, Department of Internal Medicine, Soonchunhyang University School of Medicine, Bucheon, Korea*
*[2]Department of Pathology, Soonchunhyang University School of Medicine, Bucheon, Korea*
*[3]Digestive Disease Center and Research Institute, Department of Internal Medicine, Soonchunhyang University School of Medicine, Cheonan, Korea*

[4]*Digestive Disease Center and Research Institute, Department of Internal Medicine, Soonchunhyang University School of Medicine, Seoul, Korea*

***Background/Aims:*** Intraductal papillary neoplasm of bile duct (IPNB) is a precursor of invasive carcinoma. However, it can be miss or underdiagnosed by cross-sectional imaging studies and/or cholangiography. Recently, as single operator peroral cholangioscopy (SO-POC) which is easy to maneuver in high image quality has been developed, SO-POC are evolving as one of the diagnostic methods of bile duct diseases. In this study, we evaluated the usefulness of SO-POC for diagnosis and management of IPNB.

***Materials and Methods:*** Data from consecutive patients undergoing SO-POC and diagnosed as IPNB were analyzed. SO-POC was performed with direct POC using an ultraslim endoscope and/or SpyGlass direct visualization system. All POC findings were reviewed by two experienced investigators. All of IPNB cases were diagnosed as IPNB according to the criteria of WHO 2010 by one expert pathologist.

***Results:*** A total of 25 patients with IPNB diagnosed by POCs was analyzed. In 12 patients (48.0%), IPNB was not observed in computed tomography (CT) and SO-POC was performed for the evaluation of dilated bile duct (n=6) and management of stones (n=6). In 17 patients (68.0%), direct POC with narrow band image and/or i-scan was used for evaluation of IPNB. Irregular tortuous and dilated vessels (p=0.036) was found to be significantly associated with invasiveness. POC-guided target biopsy was performed in all patient and sensitivity was 96.0%. In 11 patients (44.0%), management plan was changed after confirmation of IPNB extent by POC.

***Conclusion:*** SO-POC is useful to detect the IPNB which was not observed by cross-sectional imaging studies and decide the management plan of IPNB.

***Keywords:*** Peroral cholangioscopy, cholangiocarcinoma, ERCP

---

***PP-394***

## *An association between anti-saccharomyces cerevisiae antibodies (ASCA) And recurrent ileitis following total colectomy: A case series*

**Ece Bilgiç[1], Kübra Köken[1], Buğu Bulat[1], Arzu Ensari[2], Cihangir Akyol[3], Hülya Çetinkaya[4]**

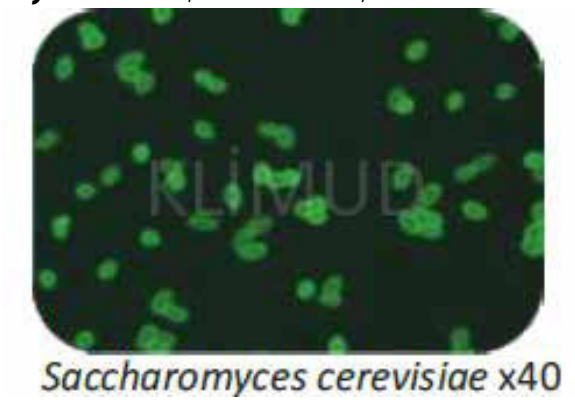
[1]*Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
[2]*Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*
[3]*Department of General Surgery, Ankara University School of Medicine, Ankara, Turkey*
[4]*Division of Gastroenterology and Hepatology, Ankara University School of Medicine, Ankara, Turkey*

***Introduction:*** Inflammatory changes of the distal ileum in ulcerative colitis (UC) may be observed in backwash ileitis and after total colectomy (TC) with ileal pouch. The IgG Anti-Saccharomyces cerevisiae antibody (ASCA) positivity rate is known 60%-70% in patients with Crohn's Disease, 10%-15% in patients with UC and less than 5% in patients with non-inflammatory bowel disease colitis. The goal of this paper is to determine the role of ASCA status on recurrent ileitis following TC that lead to altering the initial diagnosis to indeterminate colitis.

***Case:*** A case of a 28-year-old female is presented with a 15-year history of UC. TC was done at age of 18. 10 years later, recurrence was observed endoscopically as terminal ileitis (TI) and treatment with infliximab resulted in remission. A second patient presenting was 28-year old female with a 10-year history of UC. 8 years later TC, during endoscopic control, pathology showed TI and she has been treated with infliximab for a year. The third patient was 65-year-old male with a 36-year history of UC, had a TC 7 years later from diagnosis. TI was seen after 20 years later. After treatment with infliximab and adalimumab, mesalamine has been used for maintenance. The fourth patient presenting was a 55-year-old female with a 26-year history of UC, underwent TC 14 years ago. After 10 years later, routine endoscopy revealed TI. With receiving infliximab, remission has been maintained for more than 4 years. The IgG ASCA positivity was found in all patients.

***Conclusion:*** These four cases demonstrate that ASCA positivity is associated with recurrent ileitis following colectomy for UC and support using ASCA as a prognostic marker in patients with UC.

***Keywords:*** ASCA, Crohns disease, ulcerative colitis




| | Relative importance |
|---|---|
| Very young age | ++ |
| Extensive disease | ++ |
| No response to steroids | ++ |
| Increased C-reactive protein or ESR | ++ |
| Severe endoscopic lesions | ++ |
| Hospitalization soon after diagnosis | + |
| Low hemoglobin | + |
| Increased fecal calprotectin | + |
| Non smoking | + |
| No appendectomy | + |

Yeast S. cerevisiae, the cells are bordered by cell wall that contains the antigen for ASCA

***PP-395***

## *Evaluation of the changes in the incidence, localization and co-occurrence of helicobacter pylori in gastric cancers over twenty years*

**Bilger Çavuş[1], Filiz Akyüz[1], Aşkın Yazıcı[2], Alp Atasoy[1], Aslı Çiftçibaşı Örmeci[1], Kadir Demir[1], Sabahattin Kaymakoğlu[1], Fatih Beşışık[1]**

*[1]Division of Gastroenterohepatology, İstanbul University İstanbul School of Medicine, İstanbul, Turkey*
*[2]Department of Family Medicine, İstanbul University İstanbul School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Gastric cancers are the fourth most common cancer in the world and second in cancer-related deaths although it differs geographically. It has been reported in the observational studies that the incidence of gastric cancer has decreased all over the world with the improvement of socioeconomic level and hygiene conditions in the last five years decade and also according to increase in eradication of H. pylori. We aimed to reveal the change in gastric cancer in our country in terms of localization, histopathology and relationship with H. pylori with our own data over a period of twenty years.

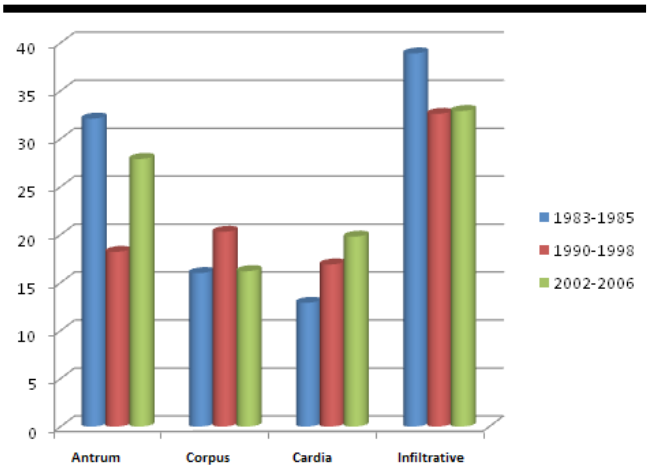



**Figure 1.** Localisation of gastric cancers.

***Materials and Methods:*** In this study, the records of 37237 patients who underwent conventional upper gastrointestinal endoscopy between January 1, 1983 and December 31, 2006 in Istanbul University Istanbul Medical Faculty Gastroenterohepatology Department Endoscopy Unit were evaluated retrospectively. The presence of H. pylori was investigated by rapid urease test during endoscopic examination or with histopathological examination.

***Results:*** The records of 37237 patients were evaluated retrospectively and 18935 (50.9%) of them were female. Gastric cancer was found in 2.2% of the patients. Histopathology of these cancers was classified as 1.5% adenocarcinoma, 0.2% lymphoma and 0.1% others. When the localization of gastric cancer over the years was evaluated, it was seen that the incidence tended to increase towards proximal (Figure 1). When the incidence of gastric cancer was evaluated in 5-year periods, it was found that it tended to decrease in a similar way with H.pylori positivity rates (Figure 2). Histopathological evaluation of gastric cancers revealed that adenocarcinoma was the most common histopathologic subgroup at all times, but tended to decrease over time (Figure 3).

***Conclusion:*** Similar to the studies in the literature, we found that the incidence of gastric cancer tended to decrease over the years in our study, which we evaluated the patients records for a period of twenty years, and that proximal gastric cancers tended to increase in this period.

***Keywords:*** Gastric cancer, H. pylori, prevelance

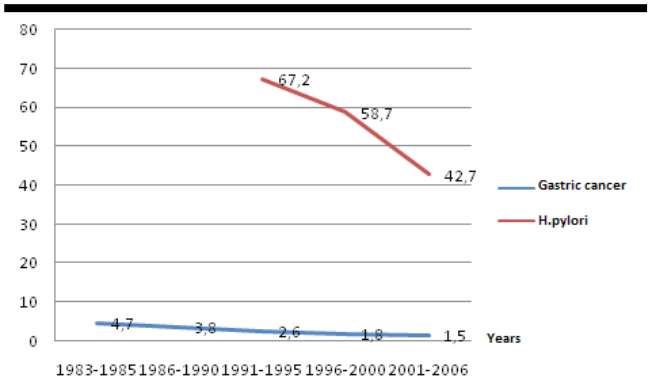



**Figure 2.** Changes in the prevelance of *H. pylori* and Gastric cancer in years

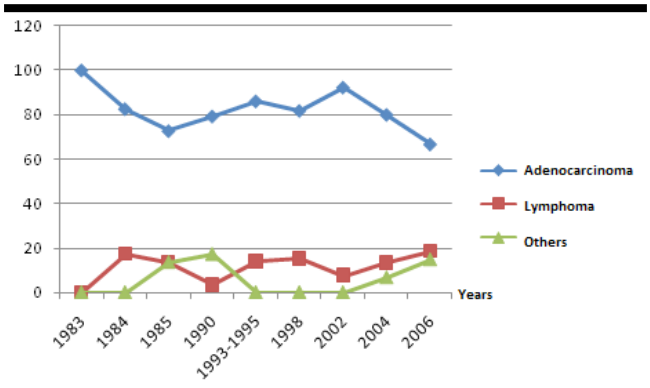



**Figure 3.** Histopathological changes of gastric cancer.

***PP-396***

## *Recurrent sweets syndrome secondary to ulcerative colitis an uncommon association*

**Ece Bilgiç[1], Buğu Bulat[1], Kübra Köken[1], Arzu Ensari[3], Hatice Erdi Şanli[2], Hülya Çetinkaya[4]**

*[1]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Dermatology, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*
*[4]Division of Gastroenterology and Hepatology, Ankara University School of Medicine, Ankara, Turkey*

***Introduction:*** Sweets syndrome (SS) or acute febrile neutrophilic dermatosis, is a condition characterized by the sudden onset of fever, leukocytosis, and tender, erythematous, well-demarcated papules and plaques which show dense neutrophilic infiltrates on histologic examination. SS can present in several clinical settings: classical (or idiopathic), malignancy associated and drug-induced SS. The association between inflammatory bowel disease (IBD) and SS was first described in 1988.It is a rare extraintestinal cutaneous manifestation (ECM) of IBD and ECMs are seen more common in Crohn's disease (70%) than in UC (30%). The most common skin or mucocutaneous lesions associated with IBD are erythema nodosum (EN), pyoderma gangrenosum (PG), and aphthous stomatitis.

***Case:*** 33 years old male diagnosed with UC at the age of 20 and at the time of the diagnosis, he presented to the Dermatology Clinic with erythematous papular lesions, scattered over his face and neck. He denied using any drug or having systemic symptoms. Skin biopsies found neutrophil rich dermal inflammation consistent with SS. His skin lesions dramatically improved with systemic corticosteroid (CS) treatment. After tapering prednisolone, intermittent exacerbations were reported and colchicine, cyclosporine were added to CS. Under treatment with infliximab and mesalazine patient has been in clinical remission for 6 years. During the remission of UC, no recurrence of SS was observed.

***Conclusion***: Because different skin lesions can develop in patients with UC, SS associated with UC often misrecognized. Co-existence of SS and UC were not defined in large series of studies in literature and case experiences should be combined so that the co-existence can be understood when present.

***Keywords:*** Sweets syndrome, ulcerative colitis

***PP-397***

## *Comparing dual therapies with quadruple therapy in the eradication of helicobacter pylori*

**Elif Gram Bacaksız, Gözde Derviş Hakim, Coşkun Yıldız, Harun Akar**

*Tepecik Training and Research Hospital, İzmir, Turkey*

***Background/Aims:*** In our study, we aimed to retrospectively compare the eradication rates of dual therapies (high-dose proton pump inhibitor (ppi)+amoxicillin) with standard triple therapy with bismuth salt in helicobacter pylori(Hp) treatment.

***Materials and Methods:*** In our study, between 1 January 2011-1 June 2018 Tepecik Training and Reseach Hospital, Gastroenterology Clinic patients who were over 18 age and had detected Hp with histopathologically. 175 patients were included the study and they were randomized for 4 groups of treatment protocols. 50 patients received standart triple therapy added bismuth (amoxicillin 1 g 2x1+clarithromycin 500 mg 2x1+ppi 2x1+bismuth subcitrate 300 mg 2x2), 50 patients received esomeprazole 40 mg 2x1+amoxicillin 500 mg 4x1, 50 patients received rabeprazole 20 mg 2x1+amoxicillin 500 mg 4x1 and 25 patients received pantoprazole 40 mg 2x1+amoxicillin 500 mg 4x1 therapy. The eradication controls performed by histologically after 6-8 weeks after the end of these treatments. SPSS 22.0 package program was used for statistical analysis. Normal distribution was evaluated by Shapiro-Wilk test. ANOVA, Chi-square test, Mc Nemar test and Kappa compliance test were performed.

***Results:*** There was no significant difference for age and sex disturbances between the groups. When the eradication rates of Hp positive patients according to different treatment options were examined, 78% (n=39) of the patients who received triple+bismuth therapy showed improvement after treatment; 66% (n=33) of the rabeprazole group, 58% (n=29) and 44% (n=11) of Pantoprazole group had Hp negative results after treatment.

***Conclusion:*** Triple + bismuth therapy was associated with a higher eradication rate of Hp compared with dual therapies in our study. Eradication rates were rather low in four groups.

***Keywords:*** Helicobacter pylori (Hp), proton pump ınhibitor (ppi), eradication treatments

***PP-398***

## *Severe iron deficiency anemia due to hookworm infection in a patient with liver cirrhosis: A case report*

**Nadya Mutiara Viryani**

*Airlangga University, Jawa Timur, Indonesia*

Iron deficiency anemia (IDA) is associated with several pathological gastrointestinal conditions and a common complication of chronic liver diseases. We report a case of a 45-yo woman with liver cirrhosis who suffered from severe chronic iron deficiency anemia due to *Ancylostoma duodenale* infection. Patient admitted to our hospital with chief complain of chronic fatigue, dizziness and shortness of breath. Six months prior to admission, she had been diagnosed with liver cirrhosis child-Pugh score B related to Hepatitis B, esophageal varices grade 1 and her fibroscan score was F4 (24.8 kPa). There is no history of nausea, burning pain in retrosternal region, coffee-ground vomit or black stool. Laboratory investigations revealed iron-deficiency anemia with microcytic hypochromic erythrocytes [RBC $2.86x10^6$/µ, hemoglobin 5.5 g/dL, hematocrit 24%, MCV 69.2%, MCH 20.5pg, MCHC 25.1 g/dL, Platelet count $84x10^3$/µ, serum iron 21 µg/dL, TIBC 348 mg/dL, serum ferritin 12.50 ng/mL]. The differential count showed neutrophils 46.8%, lymphocytes 20.9%, monocytes 9.6% and eosinophil 22.7%. Other biochemistry examinations, including electrolytes, liver and renal functions were within normal limits. Stool routine examination showed presence of occult blood but no parasitic eggs. Endoscopic examination revealed live and motile worms less than 1 cm in length in duodenum. The gastric mucous was erythematous with and old ulcer in the antrum. Three live worms were individually easily lifted off the mucosa and sent for histopathologic examination which result was *A.duodenale*. The patient was treated with blood transfusion due to symptomatic severe anemia, albendazole 400 mg po once and iron supplementation. Overlapping cause of IDA in one patient is a rare case. In this patient intestinal parasitic infection were not consider first because the underlying disease of liver cirrhosis could also lead to IDA from other route of complications such as variceal rupture, gastropathy, gastric antral vascular ectasia (GAVE) or peptic ulcers.

***Keywords:*** Iron deficiency anemia, hookworm infection, liver cirrhosis

---

***PP-399***

## *Relationships between lipid profile indicators and elastometry data in patients with nonalcoholic fatty liver disease*

**Iuliia Shekhovtsova, Larisa Zhuravlyova**

*Kharkiv National Medical University, Kharkiv, Ukraine*

***Background/Aims:*** The aim of the present study was to investigate relationships between lipid profile indicators and elastometry data in patients with nonalcoholic fatty liver disease (NAFLD).

***Materials and Methods:*** The study was performed on 36 patients (17 males, aged 52.1±2,8) with NAFLD; control group (n=20). We excluded those with excess alcohol intake, liver stiffness measurement (LSM) failure or unreliable LSM values. LSM ≥ 8.0 kPa was used as a cutoff suggesting clinically relevant fibrosis. The survey plan included: anthropometric data, indices of carbohydrate exchange (IRI, glucose, HbA1C, HOMA-IR), lipid metabolism (TC,TG, LDL,HDL).

***Results:*** BMI was higher in study groups than in control group (33.2±3.7 vs 25.8±4.2 kg/$m^2$, $p<0.05$). Hypertriglyceridemia was detected more frequently in study group compared with control group (76.3% vs 38.4% respectively, $p<0.05$). The levels of total cholesterol, TG and LDL in study group were higher than in control group (on average 29% and 18%; 19% and 17%; 34% and 26% respectively, $p<0.05$). The level of HDL was lower in study group, than control group (on average 19% and 15% respectively, $p<0.05$). The level of TC in study group was increased proportion to BMI ($r=0.39$; $p<0.05$). The ratio of TG/

HDL in study group was higher than in control group (on average 38% and 22% respectively, p<0.05). The levels of LDL were correlated with total cholesterol levels (r=0.67; p<0.001), with BMI (r=0.38; p<0.001), with HOMA-IR (r=0.18; p<0.001). In patients study group the level of LSM was on overage 9.1±9.3. LSM were correlated with LDL (r=0.55; p<0.001), BMI (r=0,52; p<0.001), total cholesterol levels (r=0.64; p<0.001), HDL (r=-0.55; p<0.001), TG (r=0.55; p<0.001).

***Conclusion:*** Patients with NAFLD have a highest rate of atherosclerotic vascular lesions and the risk of developing fibrosis.

***Keywords:*** Lipid profile, elastometry data, nonalcoholic fatty liver disease

---

***PP-400***

## *Mesalamine monotherapy for maintenance of remission in ulcerative colitis patients in Turkish population*

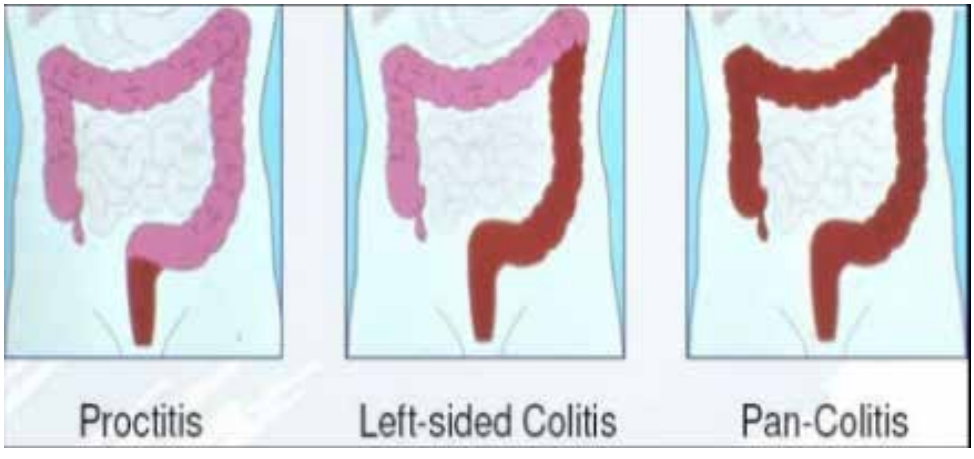
**Hülya Çetinkaya[1], Ece Bilgiç[2], Zeynep Ellik[1], Dilara Akbulut[3], Serkan Duman[1], Arzu Ensari[3]**

*[1]Division of Gastroenterology and Hepatology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Newer formulations of salicylates based drugs have fewer side-effects and are free of the sulphur component. Mesalamine is one of them and it has been used for over 30 years in the treatment of inflammatory bowel disease (IBD). The aim of this study was to analyze the role of the mesalamine in the remission of ulcerative colitis (UC).

***Materials and Methods:*** A total of 392 adult outpatients and inpatients with a previously confirmed diagnosis of UC were enrolled at the Departments of Gastroenterology of the Ankara University between 2010 and 2018. They were diagnosed on the basis of standard clinical, endoscopic, and histologic criteria. Disease activity was evaluated using the Rachmilewitz Endoscopic Index (REI) and the Mayo score. Remission is defined as ≤1 point by Mayo score and ≤4 points by REI.

***Results:*** Just over half of the patients (58%) were male, and the median age of the study population was 44 year. 45.4% of patients had their UC disease limited to the left side of the colon while 42.8% had pancolitis. 93.3% of all the patients were treated with mesalamine as a first line agent. Mesalamine has been shown to be effective in the maintenance of remission in 45% of patients with UC who were under monotherapy with mesalamine. 16.3% of patients receiving corticosteroids and mesalamine achieved remission compared to %23.4 of patients receiving azathioprine and mesalazine. %11 of all the patients who failed to maintain remission with mesalamine and azathioprine received anti TNF therapy. This study presented that%71 of all the patients on mesalamine maintained remission.



***Conclusion:*** Mesalamine is shown to be significantly superior to other therapies for maintenance of remission as a first-line therapy.

***Keywords:*** Mesalamine, ulcerative colitis

***PP-401***

## *Apoptosis in peripheral blood lymphocytes in intestinal tuberculosis and Crohn's disease: Implications to diagnostic differentiation*

**Suprabha Suresh Nayak, Cannanore Ganesh Pai, Mamatha Vishwanatha Shetty, Kanive Parashiva Guruprasad, Satyamoorthy Kapaettu**

*Academy of Higher Education, Manipal, India*

***Background/Aims:*** Intestinal tuberculosis and Crohn's disease mimic each other often leading to misdiagnosis. We evaluated difference between intestinal tuberculosis (ITb) and Crohn's disease (CD) using the extent of apoptosis in peripheral blood lymphocytes.

***Materials and Methods:*** CD4+ cells as a percentage of the lymphocytes, and viable, dead, total apoptotic, early apoptotic and late apoptotic CD4+ cells were assessed in the peripheral blood by flow cytometry in healthy controls and patients with confirmed active ITb and CD prior to initiating therapy. Early apoptotic and total apoptotic cells were further expressed as a proportion of the percentage of CD4+ cells.

***Table 1.*** Comparison of percentage of $CD4^+$ positive cells and pattern of apoptotic $CD4^+$ cells in patients with intestinal tuberculosis and Crohn's disease and healthy controls

| Parameter | ITb (N=23) | CD (N=17) | HC (N=20) | p ITb vs CD | p ITb Vs HC | p CD Vs HC |
|---|---|---|---|---|---|---|
| $CD4^+$ cells (%) | 6.5 (3.0, 8.75) | 13.40 (10.15, 13.40) | 14.97 (13.62, 19.36) | <0.001 | <0.001 | 0.027 |
| Viable $CD4^+$ cells (%) | 97.67 (95.03, 99.45) | 98.93 (97.71, 99.53) | 99.26 (98.21, 99.43) | 0.143 | 0.072 | 0.798 |
| Dead $CD4^+$ cells (%) | 0.14 (0.0, 0.71) | 0.10 (0.0, 0.50) | 0.21 (0.12, 0.33) | 0.633 | 0.620 | 0.357 |
| Total APC (%) | 0.13 (0.0, 0.22) | 0.08 (0.0, 0.21) | 0.05 (0.0, 0.07) | 0.045 | 0.029 | 0.029 |
| Late APC (%) | 1.14 (0.50, 2.19) | 0.51 (0.33, 1.13) | 0.39 (0.23, 1.21) | 0.333 | 0.896 | 0.249 |
| Early APC (%) | 1.24 (0.55, 2.54) | 0.71 (0.40, 1.30) | 0.43 (0.28, 1.56) | 0.037 | 0.023 | 0.935 |
| Early APC as a proportion of $CD4^+$ cells | 17.18 (5.61,57.33) | 4.84 (2.71, 9.83) | 2.25 (1.40, 10.90) | 0.039 | 0.039 | 0.968 |
| Total APC as a proportion of $CD4^+$ cells | 17.18 (7.4, 67.50) | 5.51 (3.10, 11.03) | 2.43 (1.87, 11.76) | 0.036 | 0.036 | 0.956 |

p value of <0.05 was considered as statistically significant by Wilks' Lambda test

Data expressed as median and interquartile range

Intestinal tuberculosis-ITb; Crohn's disease-CD; Healthy controls- HC; APC -Apoptotic cells

***Results:*** The percentages of CD4+ cells (6.5 (3.0, 8.75) versus 13.40 (10.15, 13.40)); p<0.001), total apoptotic cells (0.13 (0.0, 0.22) versus 0.08 (0.0, 0.21)); p=0.045), early apoptotic (1.24 (0.55, 2.54) versus 0.71 (0.40, 1.30)); p=0.037) and the proportion of the latter two parameters (17.18 (5.61,57.33) versus 4.84 (2.71, 9.83)); p value 0.039 and (17.18 (7.4, 67.50) versus 5.51 (3.10, 11.03)); p value 0.036 were significantly different between patients with ITb and CD. The best sensitivity, speci-

ficity, and positive and negative predictive values for the diagnosis of ITb were seen with the CD4+ cell percentage (82.6%, 82.4%, 86.4%, 77.8% respectively) and the proportion of early apoptotic cells (73.9%, 70.6%, 77.3%, 66.7% respectively).

***Conclusion:*** CD4+ cells as a percentage of peripheral blood lymphocytes and the proportion of early apoptotic CD4+ cells show promise to diagnostically differentiate ITb from CD.

***Keywords:*** Apoptosis, intestinal tuberculosis, Crohn's disease

***Table 2.*** The sensitivity, specificity, positive predictive value and negative predictive value for the diagnosis of intestinal tuberculosis for select parameters relating to $CD4^+$ cells

| Parameter | Cut off | AUC (95% CI) | Sensitivity (95% CI) | Specificity (95% CI) | PPV (95% CI) | NPV (95% CI) |
|---|---|---|---|---|---|---|
| $CD4^+$ Cells | ≤9.0 | 0.872 (0.753, 0.991) | 82.6 (61.2, 95.0) | 82.4 (56.6, 96.2) | 86.4 (65.1, 97.1) | 77.8 (52.4, 93.6) |
| Early APC | ≤1.2 | 0.340 (0.176, 0.517) | 52.0 (30.6, 73.2) | 23.5 (3.8, 43.4) | 48.0 (26.6, 66.6) | 26.7(4.7, 50.8) |
| Total APC | ≤1.4 | 0.349 (0.179, 0.519) | 60.9 (38.5, 80.3) | 23.5 (6.8, 49.9) | 51.8 (31.9, 71.3) | 30.8 (9.1, 61.4) |
| Early APC as a proportion of $CD4^+$ cells | ≥0.07 | 0.746(0.591, 0.900) | 0.739 (0.516, 0.900) | 0.706 (0.440, 0.970) | 0.773 (0.610, 0.807) | 66.7 (0.485, 0.809) |
| Total APC as a proportion of $CD4^+$ cells | ≥0.10 | 0.740 (0.583, 0.898) | 0.696 (0.470,0.867) | 0.706 (0.440, 0.896) | 0.762 (0.593, 0.075) | 0.632 (0.462,0.0 73) |

Confidence interval expressed at 95% confidence interval. APC -Apoptotic cells; Area under the curve-AUC; Confidence interval-CI: Positive Predictive Value-PPV; NPV-Negative Predictive value.

***PP-402***

## *The assessment of high-resolution manometry with non obstructive dysphagia: Moroccan study*

**Sara Ghani, Ilham Serraj, Mouna Salihoun, Nawal Kabbaj**

*Ibn Sina Hospital, Rabat, Morocca*

***Background/Aims:*** Non-obstructive dysphagia (NOD) is defined as the sensation of food stuck in the esophagus in the absence of mechanical obstruction, and is often encountered in daily clinical practice. Esophageal motility disorders, including achalasia and other hyper- or hypo-contractile disorders, are the major causes of NOD, and further investigation is often required for a correct diagnosis. High resolution manometry (HRM), currently remains the gold standard for differentiating the various esophageal motility disorders. This allows for more convenient and thorough evaluation of esophageal motor function.The aim of this study is to assess the prevalence and identify the type of esophageal motor disorders in patients with non obstructive dysphagia according to Chicago classification.

***Materials and Methods:*** 188 consecutives patients with non obstructive dysphagia underwent high-resolution manometry. Mechanical obstruction and mucosal disease have been excluded by upper endoscopy. They were 96 men and 92 women. The mean age was 41 ans (14-72). Manometry data were analyzed with esophago-gastric junction resting and relaxation pressures, and esophageal pattern contraction.

***Results:*** HRM was pathological in 116 patients (62%). Achalasia was diagnosed in 100 patients (86%). 29% classified as type I (n=29), 64% as type II (n=64) and 7% as type III (n=7). HRM has showed a motor disorders may correspond to scleroderma

in 9 patients (1,8%), and a jackhammer esophagus in 3 cases (3%) and esophagogastric junction outflow obstruction in 4 cases (8%). HRM was normal in 72 patients (38%).

***Conclusion:*** HRM is an important advance in the assessment of esophageal motor disorders. it provides benefits in research and clinical practice, is fast becoming the gold standard to study esophageal dysmotility in spite expansive equipment. Achalasia witch can be divided into 3 subtypes according to Chicago classification is the more prevalent primary motor disorder most commonly found.

***Keywords:*** Dysphagia, achalasia, manometry high resolution

---

***PP-403***

## *Impact of mesalamine on histological remission in patients with ulcerative colitis*

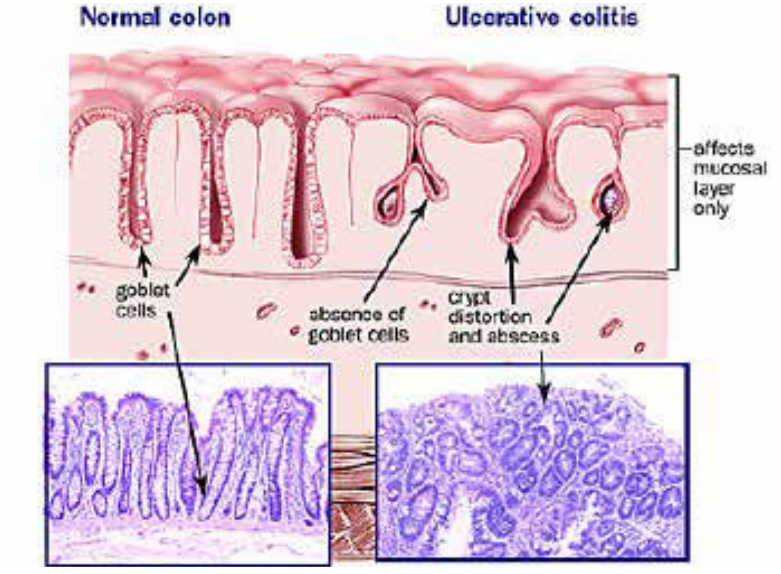
**Hülya Çetinkaya[1], Ece Bilgiç[2], Zeynep Ellik[1], Dilara Akbulut[3], Serkan Duman[1], Arzu Ensari[3]**

*[1]Division of Gastroenterology and Hepatology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Histologic measurements are gradually used in ulcerative colitis (UC) to determine response to therapies (1,2). We aimed to compare the efficacy of treatment options in terms of mucosal healing in patients with UC.

***Materials and Methods:*** The initial and follow-up biopsy specimens from patients with UC (including TI and five colonic segments) examined retrospectively from 2014 to 2018. Histological parameters of activity (cryptitis, crypt abscesses, ulceration) and chronicity (crypt distortion, mucin depletion, pyloric/paneth cell metaplasia) were analyzed in all localizations. They were classified as normal, active and chronic. Comparisons between the diagnostic groups and initial/follow-up biopsies were committed using Chi-square test and a p value less than 0.05 was considered statistically significant.

***Results:*** 167 patients with UC (mean age, 42.3 years) were included in study. 53.7% of patients were male. 116 patients (70%) received mesalamine (MMX) and 30 patients (18%) were on anti-TNF therapy while 18 patients (10.7%) were treated with azathioprine, MMX and steroid. In inicial biopsies; pancolitis pattern was observed in 60% and left colon involvement was 35.6% and after treatment, pancolitis pattern resulted in 33.6% in follow up biopsies. Mucosal healing rates were significantly higher in patients on MMX.



***Conclusion:*** We discovered the importance of MMX treatment on mucosal healing (3). MMX treatment are significantly more likely to achieve improvement on pancolitis.

***Keywords:*** Mesalamine, histological remission, ulcerative colitis

---

***PP-404***

## *The management of esophageal stenosis by using covered metallic stent: Experience of a Moroccan digestive endoscopy service*

**Sara Ghani, Asmae Sarhani, Mohammed Acharki, Mouna Salihoun, Nawal Kabbaj**

*Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Esophageal stents are important tools for palliative treatment of inoperable or recurrent esophageal cancer, for *broncho-esophageal* fistula, or more rarely for bypassing a benign stenosis. The aim of our work is to show the various types of esophageal stents currently available, indications; challenges and complications for their placement.

***Materials and Methods:*** Between May 2014 and March 2018, 09 procedures of the placement of esophageal stents were performed in 08 patients.The placement of the esophageal stent was performed by using a guidewire. Radioscopic control has been systematically carried out, and all patients were monitored for 24 hours after the procedure.

***Results:*** All stents have been successfully placed ; only 01 case which necessitated the replacement of another stent, with dilation of the oesophageal stricture by using a balloon dilator in 4 cases (50%).Two cases of stent migrations were noted (22%) treated by the placement of one or two other stent(s). No stent occlusion and no complications such as a chest pain were noted in all cases. The tolerance was considered «acceptable to excellent» by the patient and the food recovery was again possible.

***Conclusion:*** Esophageal stents remain important tools for stenosis and/or fistula of the upper third of the esophagus. The minimally invasive approach of esophageal stenting has improved the quality of life of these patients. The simplicity and the functional success obtained in the majority of the cases, give them a privileged place as a palliative treatment.

***Keywords:*** Dysphagia, stenosis, esophageal stent, covered metallic stent

---

***PP-405***

## *The prevalence of helicobacter pylori infection in gastro-duodenal ulcer: Moroccan study*

**Sara Gha[1], Asmae Sarhani[2], Mouna Salihoun[2], Nawal Kabbaj[2]**

*[1]FDE-HGE*
*[2]Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** The prevalence of gastro-duodenal ulcer has declined in industrialized countries than in developing countries over the past 3 decades in parallel with the decline in gastric infection in H. pylori. This is the first cause of high digestive hemorrhage in Morocco. The evolution of diagnostic (invasive and non-invasive) and therapeutic means has resulted in a net decrease in this pathology. Worldwide, more than 1 billion people are estimated to be infected with *H pylori*. The aim of our study is to determine the current prevalence of gastro-duodenal ulcers.

***Materials and Methods:*** 141 cases of UGD or 2% were diagnosed on 5259 FOGD performed over a period of 4 years. Only 109 patients were selected for the diagnosis of Hp infection by gastric biopsies and gastric ulcer bank biopsies. Epidemiological, clinical, endoscopic and pathological data were collected from Upper Gastrointestinal Endoscopy Register and the anatomical pathology Register.

***Results:*** During this period, 141 cases of gastro-duodenal ulcers were diagnosed. The average age of patients was 50 years [20-84 years] with a male predominance (71%). previous history of taking NSAIDs was noted in 3% of cases, portable hypertension in 3% of cases, terminal chronic renal insufficiency in 2% of cases, high blood pressure in 2% of cases, chronic smoking in 2% of cases and ischemic heart disease in 1% of cases. Upper gastrointestinal bleeding was the main indication of upper endoscopy in 61% of cases, followed by epigastralgia unresponsive to PPI in 25% of cases, vomiting in 7% of cases, dysphagia in 3% of cases, anaemia in 2% of cases, gastric thickening on the abdominal CT in 1% and before Bariatric Surgery in 1%.The ulcers were located in Bulbous in 56% of cases (IIa: 1%; IIb: 6%; IIc: 3%; III: 90%), in gastric in 32% of cases (IIa: 3%; IIb: 3%; IIc: 23%; III: 71%), in duodenal in 6% of cases (IIb: 14%; IIc: 43%; III: 43%). Anatomical-pathological tests revealed an infection with Hp in 70% of cases without signs of malignity.

***Conclusion:*** In this study, the prevalence of the gastro-duodenal ulcers is estimated at 2% which 70% is related to the infection with Hp, the most common mode of revelation is an upper gastrointestinal bleeding with a stage III of Forrest and the bulbous localization is the most predominant.

***Keywords:*** Hp infection, ulcer, GI bleeding

---

***PP-406***

## *Chronic diarrhea caused by an impacted foreign body in the sigmoid colon: A rare scenario*

**Sofia Hanif, Shahid Rasool, Ahmad Nawaz**

*University Medical and Dental College Faisalabad, Faisalabad, Pakistan*

Chronic diarrhea is a common disease which affects the quality of life of many patients. It is one of the major diseases of referral to gastrointestinal clinics. Irritable bowel syndrome, infectious diarrhea, inflammatory bowel disease and abdominal tuberculosis due to unhygienic conditions in our part of the world are the major causes of chronic diarrhea in young patients. We are reporting a young female who presented with chronic diarrhea, abdominal pain and bleeding per rectum mimicking ulcerative colitis for last many months. On colonoscopic examination an impacted foreign body was found in the sigmoid colon which was the culprit. It was a surgical sponge impacted in sigmoid colon with hyperemia and ulceration of the surrounding mucosa (Figure). This sponge was left during the procedure of LSCS which has migrated into the sigmoid colon. This foreign body in the sigmoid colon was the cause of factious diarrhea and bleeding was due to ulceration of the colonic mucosa. An exploratory laparotomy was done. On exploration there was a mass in the pelvis formed of omentum, covering the foreign body (sponge) excoriating into sigmoid colon and there was sealed perforation. Mass was explored, foreign body was retrieved; perforated sigmoid colon was resected and Hartman procedure was done. After surgery, recovery was uneventful. Her diarrhea settled after retrieval of the foreign body from the sigmoid colon.To our knowledge, this is the first description of an impacted object causing chronic gastrointestinal symptoms in a patient which was left during a LSCS. This case report underlines the importance of an individualized approach to patient care. Therefore rare causes like foreign body should always be included in the differential diagnostic related to chronic gastrointestinal symptoms.

***Keywords:*** Diarrhea, foreign body, colon

***PP-407***

## *Rectal villous tumors: About a hospital series*

**Nkurunziza Lambert, El Bacha Hicham, Benzzoubeir Nadia, Mechhor Salma, Souidine Farida, Ouazzani Laaziza, Errabih Ikram**

*Hepato-gastroenterology and Proctology Service, Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Villous tumors are precancerous lesions that are most often located in the rectum which may be resected endoscopically or surgically. Through a series of patients recruited in the Hepato-Gastroenterology and Proctology Service, we identify the epidemiological, endoscopic, histological, therapeutic and prognostic characteristics of these tumors.

***Materials and Methods:*** This is a single-center, retrospective study of all patients who presented a villous process on lower endoscopic examination or rectal polyps during the period from January 2010 to December 2018 in the Hepato-Gastroenterology and Proctology Service. We performed total colonoscopy with biopsies, cross sectional imaging and tumor markers in all patients.

***Results:*** During the period from January 2010 to December 2018, we enrolled 21 patients, among them 83% were women (n=17), the mean age was 53 years (range 41 to 72); no family history of colorectal cancer has been reported. The symptomatology was dominated by rectal bleeding in 95% (20 patients), abdominal pain in 47% (10 patients), anemic syndrome in 38% (8 patients) and rectal syndrome in 28.5% (6 patients). The rectal examination found a palpable mass in 66% of the cases (n=14). The mean size of the tumor was 3 cm (1-6 cm). All the tumors were sessile, non-stenosing. The histopathological examination of the biopsies showed high-grade dysplasia in 65% of cases (n=13). The extension assessment performed was negative in all patients except one patient who had an ovarian tumor localization. The tumor markers were negative in all our patients. Endoscopic removal was attempted in one patient, but due to the incomplete nature of the resection, the patient was referred for surgery. The surgical procedure for our patients consisted of transanal excision of the tumor in 71% of patients (n=15) versus proctectomy in 29% (n=6). The histological diagnosis from surgical specimen showed an adenocarcinoma in 29% of cases (n=6), high-grade dysplasia in 57% of cases (n=12) and low-grade dysplasia in 14% of cases (n=3).

***Conclusion:*** Villous tumors remain a diagnostic and therapeutic challenge. Indeed, 40% of these tumors have a malignant component that pre-operative biopsies can emit. Whether the treatment is endoscopic or surgical, it should allow complete excision of the villous lesion in a single fragment with healthy resection margins.

***Keywords:*** Rectal villous tumors, rectal bleeding, transanal excision

---

***PP-408***

## *Pancreatobiliary diseases: Evaluation with transabdominal and endoscopic ultrasound*

**Bimal Chandra Shil[1], Madhusudan Saha[2], Ranjit Kumar Banik[1], Anm Saifullah[1], Royes Uddin[1], Mamunur Rashid[1], Imteaz Mahbub[1]**

*[1]Sir Salimullah Medical College Mitford Hospital, Dhaka, Bangladesh*
*[2]North East Medical College, Sylhet, Bangladesh*

***Background/Aims:*** Pancreatobiliary diseases are the important causes of morbidity and mortality worldwide. Among the imaging modalities transabdominal ultrasound (TUS) is cheap, available and noninvasive but it has some limitations. Endo-

scopic ultrasound (EUS) is invasive but it has some diagnostic and therapeutic advantages. This study was aimed to see the diagnostic yields of EUS and TUS in the evaluation of pancreatobiliary diseases.

***Materials and Methods:*** This cross sectional study was conducted in SSMC Mitford hospital, Dhaka from 2017 to June 2019. All patients (n=222) were evaluated clinically with relevant investigations. TUS and EUS were done in all cases. ERCP was done in 60 patients.

***Results:*** Among 222 patients 56.8% were males; mean age was 46±16 years. In diseases of biliary trees, EUS showed dilated CBD alone or in combination with stone in 50 & 67cases and TUS showed 37, 63 patients respectively. The difference between the findings of EUS and TUS was statistically significant (p<0.001). In gall bladder, EUS could find microlithiasis in 6 (2.6%) & sludges in 24 (10.8%) cases whereas TUS found microlithiasis in 1 (0.5%) patient & sludges in 17 (7.7%) patients respectively (p=0.00). Both EUS and TUS detected cholelithiasis in 46 (20.7%) patients. On pancreatic evaluation, EUS and TUS detected parenchymal abnormalities in 24 (10.8%) and 12 (5.5%) patients respectively with significant p value (0.00). In cases of pancreatic carcinoma and cholangiocarcinoma the differences between the findings of EUS and TUS were statistically significant (p<0.05). EUS detected 7 cases of ampullary/peri-ampullary neoplasms whereas TUS detected only 2 cases. The sensitivity of EUS for detecting CBD dilatation, CBD stones, CBD SOL and pancreatic SOL was 85%, 91%, 93%, and 92% respectively.The sensitivity of TUS for detecting CBD dilatation, CBD stones, CBD SOL, pancreatic SOL was 42%, 52%, 40%, and 37% respectively.

***Conclusion:*** EUS is more sensitive than TUS in diagnosing pancreatobiliary disorders. It is of paramount importance in diagnosing CBD dilatation, choledocolithiasis, biliary microlithiasis and pancreatobiliary neoplasms. EUS has important role before proceeding to further management by more invasive techniques like ERCP or surgery.

***Keywords:*** EUS, TUS, Pancreatobiliary diseases

---

***PP-409***

## *Epidemiological, management and Barcelona clinic liver cancer staging status of hepato cellular carcinoma: Experience of a tertiary care center*

**Talha Qureshi, Nazish Butt, Mohammad Ali Khan**

*Jinnah Postgraduate Medical Centre, Karachi, Pakistan*

***Background/Aims:*** Hepato cellular carcinoma (HCC) is associated with a high degree of mortality and is one of the gravest complications of cirrhosis. In Pakistan its diagnosis is often made all too late; the disease is usually too advanced for therapeutic intervention. To determine epidemiological factors, management and Barcelona Clinic Liver Cancer Staging (BCLC) status of the HCC at a tertiary care hospital.

***Materials and Methods:*** We undertook an observational, cross-sectional study at the Jinnah Postgraduate Medical Centre, Karachi during the period of January 2017 to December 2018. Male or female patients of age 18≥ years who were diagnosed as a case of HCC on CT-Scan Abdomen with contrast (Hepatoma protocol) were eligible for induction in this study. BCLC criterion was used to stage the disease and planning of intervention if any.

***Results:*** A total of 338 patients were inducted in the study. Majority of the patients were male 235 (69.5%). The mean duration for the diagnosis of HCC was just 1.53±1.46 months with abdominal pain 180 (53.3%) being the most common symptom. Chronic Hepatitis C infection was the most common risk factor in 201 (59.5%) of patients. Most of the patients had multicentric 134 (92.9%) HCC and 164 (48.5%) also had portal vein thrombosis (PVT). A large number 117 (34.6%) had terminal stage disease according to BCLC staging; 230 (60%) patients were also not candidates for liver transplant according to Milan criteria.

***Conclusion:*** Our study gives a dismal outcome with respect to HCC, even though most patients presented within months of diagnosis, the disease had already progressed to terminal stage. Most risk factors are preventable in preventing HCC.

***Keywords:*** Hepatocellular carcinoma, cirrhosis, BCLC

---

***PP-410***

## *Pillcam SB3 capsule endoscopy of small bowel: Indications and results: A Moroccan study*

**Sara Ghani, Ilham Serraj, Mouna Salihoun, Nawal Kabbaj**

*[1]FDE-HGE*
*[2]Ibn Sina Hospital, Rabat, Morocco*
*[3]Mohammed V University of Rabat, Rabat, Morocco*

***Background/Aims:*** Video capsule endoscopy (VCE) of small bowel has become the primary tool of exploration of the small intestine, it is increasingly used for the exploration of chronic bleeding or when an inflammatory disease of the small bowel is suspected and/or known. The aims of our study is to show the different indications of VCE and their results.

***Materials and Methods:*** 20 VCE was performed from June 2018 to June 2019. VCE Pillcam SB3 Given® was used after performing upper endoscopy and colonoscopy with terminal ileum intubation with biopsies. CT enterography and MR enterography indicated in 63% of cases were normal. The main indication was iron deficiency anemia with obscure gastrointestinal bleeding in 40% of cases, followed by melena in 33% of cases, followed by 2 cases of Osler-Weber-Rendu disease with bleeding bass or 13%, and one case of suspected Crohns disease of the small intestine or 7% and one case of celiac disease with low ferritin or 7%. The preparation used is PEG (2l one day before and 1l after ingestion of the capsule) with clear broth the day before the examination and 10 days of oral iron stop.

***Results:*** During this retrospective study, 20 VCE were realized. The average age of patients was 54.6 years [16-79 years] with a female predominance of 60%. The preparation was judged good in 54% of the cases, poor in 33% of the cases and bad in 13% of the cases. VCE showed a lesions in 58% of cases; dominated by angiodysplasia in 79% (localized in jejunum in 56% of cases, ileum in 22% and in all intestine in 22% of cases), 21% had a congestive and erosive mucosa of the jejunum and ileum. VCE was normal in 42% of cases. No cases of capsule retention in the gastrointestinal tract were reported.

***Conclusion:*** Video capsule endoscopy (VCE) is a well-established diagnostic tool in small bowel diagnostics and is very well tolerated. It is superior to imaging for mucosal lesions of the small intestine. However, a good preparation is necessary to explore entire mucosa of small intestine.In our series the main indication was the iron deficiency anemia with occult digestive bleeding and VCE showed a lesions in 58% of the cases dominated by angiodysplasias.

***Keywords:*** Occult GI bleeding, small bowel, endoscopy capsule

---

***PP-411***

## *Multiple myeloma presenting with ascites*

**Zeynep Başak[1], Elif Yorulmaz[2], Kader Irak [3], Menekşe Çaptuğ[1]**

*[1]Department Of Internal Medicine Health Sciences University, Bağcılar Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Gastroenterology, Health Sciences University,Bağcılar Training and Research Hospital, İstanbul, Turkey*
*[3]Department of Gastroenterology, Health Sciences University, Kanuni Sultan Süleyman Training and Research Hospital, İstanbul, Turkey*

***Background/Aims:*** Ascites is a rare complication of multiple myeloma and may occur either at presentation or more often during the disease course. Myelomatous ascites occurs more frequently in patients having Ig-G or Ig-A paraprotein and their prognosis is poor. When it occurs, it is usually associated with extensive liver infiltration with plasma cells, infectious peritonitis or myelomatous peritoneal infiltration. It is submitted the case of a female patient aged 50 years with IgG-kappa MM with abdominal pain.

***Materials and Methods:*** A 50-year-old woman applied to the emergency department with abdominal pain a few months ago. This patient hospitalized internal medicine department. Two weeks before presentation, patient developed progressive abdominal distention resulting in significant discomfort and there was no evidence of peripheral edema. Examination; There was abdominal distension and diffuse defense. Liver was 2 cm palpabl. Complete blood count revealed anemia with hemoglobin 8.4 g/dL and white blood cell count (9.6×103/μL) and platelet count (163000/μL). Lab tests also revealed hypercalcemia (10.3 mg/dL), total protein 9.5 with low albumin (33 g/L) and serum protein electrophoresis showed gamma peak (gamma 42%). Urea: 31 cr: 1.0 crp: 32. IgA: 7.6mg/dL IgM: 9.4 mg/dL IgG: 4752 mg/dL. Serum kappa light chain 15g/L, serum lambda light chain 0.057 g/L. Immunofixation revealed monoclonal IgG kappa band. CT: Liver size is 20 cm increased.In the PET report, right humeral diaphysis and proximal femoral diaphysis and focal hypermetabolic lesions on the right fibula of the bone marrow were detected. Patient underwent abdominal fluid tap. A sample of the ascitic fluid was sent for analysis. It revealed inflammatory cells with no suspicious malignant cells. Results revealed inflammatory cells with no malignant cells and negative culture results.

***Results:*** Results of bone marrow biopsy revealed 45% plasma cells. Immunohistochemistry studies revealed a pattern consistent with multiple myeloma.

***Conclusion:*** Multiple myeloma was suspected based on anemia, hypercalcemia, and hyperglobulinemia, in addition to symptoms of weight loss and fatigue. The presentation of multiple myeloma is also atypical in this patient, with ascites. Should be considered in the patient presenting with ascites.

***Keywords:*** Ascites, multiple myeloma, hepatomegaly

---

***PP-412***

## *Feasibility and impact of ileo-or colo-stomy for bowel obstruction due to gastric cancer peritoneal dissemination*

**Hiromichi Miyagaki, Ryohei Kawabata, Yukihiro Yoshikawa, Haruna Furukawa, Chikato Koga, Masaki Wakasugi, Tei Mitsuyoshi, Masanori Tsujie, Junichi Hasegawa**

*Osaka Rosai Hospital, Osaka, Japan*

***Background/Aims:*** Peritoneal dissemination is a frequent form of metastasis of gastric cancer, and it often causes bowel obstruction. Chemotherapy is mainly used for treatment, but ileus tube decompression or Octreotide are also tried for palliation of symptoms, but Ileo-or colo-stomy or bypass may also be effective. We are working on creation Ileo-or colo-stomy in cases who are expected more than 3 months prognosis and oral intake resumption after the creation.

***Materials and Methods:*** We retrospectively analyzed 24 patients who underwent Ileo-or colo-stomy for peritoneal dissemination of gastric cancer from June 2010 to December 2018.

***Results:*** Sex: Male/Female; 12/12 cases, location of the stenosis: rectum/ascending colon and rectum/ transverse colon/ ileal terminal; 14/2/6/2 cases, location of stomas: Sigma/ Transvers/terminal ileum; 5/3/16. In 21 cases, no severe peritoneal dissemination except in the area of the stenosis or only small amount ascites was observed by the examination in stoma creation. Additional small intestine bypass was also performed simultaneously in two cases. Grade 2 (Clavien-Dindo classification) Surgical site infection SSI were observed postoperatively in 4 cases and Gr 5 intestinal perforation in 1 case. Progression

after R0/R1 resection (Progression group)/ non-resected for Stage IV or R2 resection (Residual cancer group); 17/7. Histologic type: Diffuse/ Intestinal; 23/1, Schnitzler metastasis (Rectum stenosis) observed in 16 cases. Hydronephrosis was observed in 16 cases and it was more frequent in Schnitzler metastasis cases significantly. The median of oral intake duration after creation ileo-or colo-stomy was 155 days. There was no difference between Progression group and Residual cancer group, but the median duration was longer in the cases who received chemotherapy after creation of ileo-or colo-stomy significantly (304 days) than best care support group(94 days, $p<0.05$). The median prognosis was 143 days for Schnitzler cases and 427 days for non-Schnitzler metastasis cases ($p<0.05$).

***Conclusion:*** In cases without advanced peritoneal dissemination, ileo-or colo-stomy for bowel obstruction can be safely performed, and it can be expected to extend the oral intake duration. In particular, oral intake can be expected for about 1 year at median value in cases who undergo additional chemotherapy.

***Keywords:*** Gastric cancer, peritneal dissemination, stoma

---

***PP-413***

## *A rare case of intracranial metastases as manifestation of hepatocellular carcinoma with esophageal varices*

**Yafanita Izzati Nurina, Titong Sugihartono**

*Airlangga University, Surabaya, Indonesia*

Hepatocellular carcinoma (HCC) is the most common causes of cancer related deaths worldwide in patients with underlying chronic liver disease (especially due to Hepatitis B and C). In Indonesia (2016), one year survival rate was very low 29.4%. Intracranial metastases in HCC are extremely rare (1.2% in Japan 2011) and associated with poor prognosis (median survival rate 1-2 months). Due to its rarity, the optimal treatment strategies are still being researched. Esophageal varices is associated with a higher risk of poor prognosis in HCC. A male, 61 years old with major complaint body weakness of the right side. He also complaint upper right abdominal pain without ascites, nausea, melena history. He denied of seizure, loss of consciousness, liver, diabetes, hypertension history. Laboratory results positive HbsAg, negative HIV, AST 207, ALT 345, AFP 491, total bilirubin 0.43, Albumin 3.5, INR 1.7. Abdominal CT showed solid lession diameter 6cm with early wash in at arteries phase, early wash out at venous phase and delayed phase, got feeding from hepatica arteries. Brain CT showed multiple enhancing solid mass and hemorrhage in right left fronto parieto temporo occipital, left hemisphere cerebelli and midbrain. Endoscopy showed esophageal varices grade 2. He was diagnosed as HCC BCLC C and continued to sorafenib as paliative therapy. The most common site metastases of HCC is lung, regional lymph nodes, bone, adrenal gland, peritoneum, pancreas, kidney. Intracranial metastases (brain) is less common occurrence and frequently associated with hemorrhage as manifestation. Hemiplegia, headache, conscious change, nausea are the most frequent symptom. The most distribution of metastases was supratentorial and can be in frontal and parietal. The number of brain lesions is an important prognostic factor. A limited number of brain lesions is relatively improved survival rate and median survival with single brain lesions appears longer than that observed in those with multiple lesions.

***Keywords:*** Intracranial (brain) metastases, hepatocellular carcinoma, esophageal varices

---

***PP-414***

## *Ergonomics of gastrointestinal endoscopies: Musculoskeletal injury among endoscopy physicians, nurses and technicians*

**Shahab Abid, Samana Shah, Mohsin Ali**

*Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Ergonomics is the study of physical and cognitive demand of a task in accordance with an individual's capacity. Several studies have suggested a high prevalence of musculoskeletal injuries among endoscopists and ancillary staff. Survey-based studies estimate a 37% to 89%[1-7]prevalence of musculoskeletal pain among gastroenterologists. Musculoskeletal problems are widespread and specific in kind as well as strongly correlated with high procedure volume and procedure duration. There is paucity of data especially of endoscopists from eastern populations. Moreover a robust analysis to identify risk factors associated with endoscopy-related injury is lacking. Presence of musculo skeletal injury among endoscopists Identification of risk factors for injury Measures to educe musculoskeletal injury.

***Materials and Methods:*** The data was collected by using an 11-question, self-administered survey.

***Results:*** Data from 56 participants was collected, male 39 female 17, 87.5% had right hand dominance and 12.5% had left hand dominance. There were endoscopist 23.2% GI residents 16.1% endoscopy nurse 26.8% endoscopy technician 33.9%. Assessing level of activity, 41.1% had no regular exercise, 23.2% had exercised less than 150 minutes per day, 8.9% had 150 minutes and 26.8% had more than 150 minutes o exercise. 48.9% of the participants had been doing endoscopies for upto 5 years, 51% had been involved in endoscopy for more than 5 years. 75% reported experiencing pain or numbness, neck (41.1%) lower back pain (32.1%) shoulder pain (21.4%), thumb pain (12.5%) hand pain (23.2%), elbow pain (8.9%) and carpal tunnel (7.1%). 25% of those having pain attributed it to endoscopy 39.3% were not certain whether the symptoms had been caused by endoscopy, 10.7% said that symptoms were not caused by endoscopy. Pain evident during endoscopy in 32.1%, 25% were quite bothered by their symptoms. Duration of symptoms more than 6 months in 30.5%, in 57.1% symptoms were static and increasing in 10.7% 21.4% had to take time off from work, 23.4% of total group. 33.9% took medications for resolution of pain. The responders were asked if they use some modifications to prevent these injury and Endoscopic monitor at eye level (21.4%), cardiac monitor in front (12.5%) stopped to move patients (8.9%) sit while performing colonoscopy (12.5%), height adjustable bed (23.2%).

***Conclusion:*** This study shows that there is high prevalence of musculoskeltal injuries in endoscopists and endoscopic staff.

***Keywords:*** Ergonomics, gastrointestinal endoscopies

***PP-415***

## *An unusual case of chronic diarrhoea and palatal ulcer a case report*

**Chandrasekar Thoguluva Seshadri[1], Gokul Bollu Janakan[1], Raja Yogesh Kalamegam[1], Sathiamoorthy Suriyanarayanan[1], Sabarinathan Ramanathan[1], Prasad Menta Sanjeevaraya[1], Viveksandeep Thoguluva Chandrasekar[2]**

*[1]Medindia Hospital, Chennai, India*
*[2]University of Kansas School of Medicine, Chennai, India*

Disseminated histoplasmosis is lethal, if left untreated. Gastrointestinal Histoplasmosis is often misdiagnosed as tuberculosis, inflammatory bowel disease or malignancy. A high index of suspicion is needed and often, a re-evaluation helps in diagnosis. In our report, we describe a patient with chronic diarrhea and non-healing palatal ulcer secondary to disseminated histoplasmosis, diagnosed on re-evaluation. A 57-year-old-male, a known diabetic, presented with non-healing palatal ulcer (Figure 1a), intermittent diarrhea and significant weight loss over the last four years. On his previous evaluation, hemoglobin was 10.6 gm/dL, other blood investigations were normal. Tuberculin skin test was negative. A computed tomography (CT) of the abdomen revealed multiple enlarged mesenteric lymph nodes, colonic wall thickening and bilaterally enlarged adrenals (Figure 2). Biopsies from the palatal ulcer and colonic ulcers revealed granulomatous inflammation. He had received anti-tubercular therapy for a year without any improvement. During the present evaluation, he appeared emaciated, afebrile, and anicteric. Laboratory parameters showed anemia (10.0 g/dL), hypoalbuminemia (2.6 gm/dL) and elevated CRP (31.5 ng/mL). A central ulcer with erythematous raised edges was noted over the hard palate, biopsy from which showed histiocytic aggregates with multiple budding fungal elements, strongly PAS positive, consistent with Histoplasma (Figure 3). A gastroscopy revealed nodular lesions over the aryepiglottic folds and posterior pharynx and discrete duodenal ulcers. Biopsy from ulcer showed macrophages in the lamina propria containing spore forms of Histoplasma. An ileo-colonoscopy revealed nodular lesion in the

ileum and multiple colonic ulcers, biopsies were consistent with Histoplasma. His serology for HIV was negative and serum immunoglobulin levels were normal. He was treated with intravenous Amphotericin B for 7 days followed by oral Itraconazole 200 mg twice daily for two months. At follow-up after two months, the palatal lesion showed significant resolution (Figure 1b) and patient had gained weight. This case report emphasizes the need to consider Histoplasma in patients with chronic palatal ulcer and diarrhea and stresses the importance of re-evaluation with repeat biopsies. Supraglottic laryngeal and hypopharyngeal involvement as seen in our patient, is a rare presentation. Following amphotericin B, oral itraconazole for at least 12 months is recommended for disseminated disease.

***Keywords:*** Disseminated Histoplasmosis, chronic diarrhea, palatal ulcer

**Figure 1. a, b.** Palatal ulcer before (a) and after (b) two months of itraconazole treatment.

**Figure 2.** Computed tomography of abdomen showing bilaterally enlarged adrenal glands.

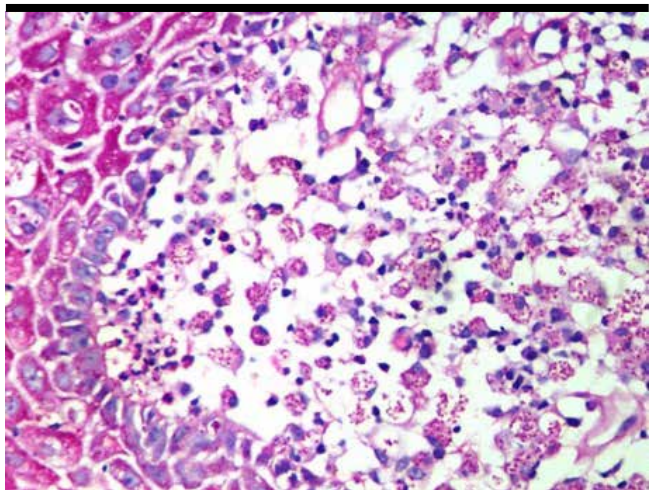


**Figure 3.** Palatal biopsy under high power magnification showing histiocytes with numerous intracellular yeast forms of Histoplasma organisms (PAS stain, x400).

***PP-416***

## *Concomitant diseases of colonic diverticular disease*

**Bayasgalan Luvsandagv [1], Namsrai Renchinsengee[1], Battulga Adiyasuren[1], Narantsatsralt Jalbuu[1], Davaadorj Duger[2]**

*[1]Ulaanbaatar Songdo Hospital, Ulaanbaatar, Mongolia*
*[2]Mongolian National University of Medical Sciences, Ulaanbaatar, Mongolia*

***Background/Aims:*** To analyze the epidemiological features of colonic diverticular disease and to determine the association between colonic diverticular disease with other colonic diseases.

***Materials and Methods:*** The consecutive colonoscopy results reviewed the time duration of January 2007 to December 2017 from Endoscopy department of Ulaanbaatar Songdo Hospital, Ulaanbaatar, Mongolia. This retrospective study analyzed the detection rate of diverticular disease and the association of colonic diverticulum with age, gender, location of the diverticulum, and other colonic diseases.

***Results:*** A total of 11229 consecutive colonoscopy cases, 322 were (2.87%) diagnosed colonic diverticulum. The mean age of patients with colonic diverticulum was 60±13.3, and females were predominant 61.2%. The detection rate of the diverticulum was increased yearly and with increasing age. Females had higher detection rate compared to males (2.5% vs. 3.18%, p<0.01). The detection rate increased with age. The left-sided colonic diverticulum (54.7%) was predominant among the patients with diverticulum. Moreover, the left sided diverticulum has higher detection rate among senior patients. Concurred colonic polyp seen in 32.6% of patients and regression analysis indicated that colonic diverticulum independently association to the colonic polyps (Odds ratio=1.79; 95% CI: 1.41-2.27; p<0.001).

***Conclusion:*** The detection rate of diverticular disease increased annually, and senior patients have statistically higher detection rate compared to younger patients. The left colonic diverticulum was predominant among the patients. The females have a higher detection rate of colonic diverticular disease. Colonic polyps are associated with colonic diverticular disease.

***Keywords:*** Diverticular disease, colonoscopy

---

***PP-417***

## *Outcome predictors in patients with acute-on-chronic Liv hospitalized in the intensive care unit*

**Stefan Chiriac, Carol Stanciu, Camelia Cojocariu, Catalin Sfarti, Ana Maria Singeap, Irina Girleanu, Oana Petrea, Laura Huiban, Tudor Cuciureanu, Cristina Muzica, Anca Trifan**

*University of Medicine and Pharmacy "grigore T.popa" Iasi, Yaş, Romania*

***Background/Aims:*** Liver cirrhosis (LC) has been associated with high mortality rates, especially in intensive care units. Although the natural progression of LC leads to decompensation and subsequently death, surprisingly, some patients develop organ failures and more rapidly and have a worse prognosis than others. These observations led to the definition of a new concept, namely Acute-on-chronic liver failure (ACLF), a syndrome characterized by high mortality. We aimed to assess the predictive factors for mortality in the intensive care unit for patients with ACLF.

***Materials and Methods:*** We performed a retrospective study including cirrhotic patients hospitalized in the intensive care unit of "St. Spiridon" Emergency Hospital Iasi, Romania, between March 2015-September 2017.

***Results:*** 72 patients were included, mostly men (72.2%), mean age 62±5.4 years. The etiology of LC was alcohol (53%), hepatitis C virus (HCV) (33%), alcohol and HCV (8%), alcohol and hepatitis B virus (HVB) (3%), and HVB and hepatitis D virus in 3%.

58 (81%) died and the median survival was 4 (3-7) days. ACLF was diagnosed in 81%, mostly ACLF grade 3 (83%). Within the ACLF group, the death rate was 90% and ACLF grade 3 patients had the highest mortality (96%). ACLF was a risk factor for death [OR=2.092, CI (1.135-3.854), p<0.001]. In the ACLF group univariate analysis identified circulatory [OR=1.852, CI (0.693-4.948), p=0.034], coagulation [OR=1.200, CI (1.037-1.389), p=0.013], and renal failure [OR=1.385, CI (0.782-2.451), p=0.05] as risk factors for death; circulatory failure was also a mortality predictor in multivariate analysis (p=0.045). Receiver-operating characteristic analysis showed good mortality predicting accuracy for Model for end-stage liver disease (MELD) and Chronic liver failure (CLIF) scores and moderate for Child-Pugh score (area under the curve 0.904, 0.897, 0.795, respectively).

***Conclusion:*** Mortality was high among critically-ill cirrhotic patients and even higher in LC patients with ACLF. MELD and CLIF scores could be used to accurately predict death in patients with ACLF hospitalized in the intensive care unit. Circulatory, renal and coagulation failures were predictors of mortality, therefore intensive treatment should be provided for these patients. As almost all cirrhotics with ACLF grade 3 died, intensive treatment could be futile and thus withheld for these patients.

***Keywords:*** Liver cirrhosis, acute-on-chronic liver failure (ACLF), mortality

---

***PP-418***

## *The management of gastrointestinal bleeding of rare etiology*

**Salma Douihi Touzani, Hicham El Bacha, Nadia Benzzoubeir, Hasna Chergui, Tarik Gharbi, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-gastroenterology and Proctology Service, Ibn Sina University Hospital, Khartoum, Sudan*

***Background/Aims***: In 90% of cases gastrointestinal hemorrhages are caused by lesions of the gastrointestinal tract, while in 10% of cases they are due to rare causes related to the lesions of adjacent organs or with systemic diseases. The aim of this work is to shed light on the rare causes of gastrointestinal hemorrhage concerning their clinical presentation, prognosis and treatment.

***Materials and Methods:*** Our work is about 4 cases of digestive hemorrhage rare etiologies collected in our service between January 2017 and April 2019. They all underwent upper endoscopy and abdominal CT scan.

***Results:*** A 21-year-old patient who had hematemesis and melena since the age of 13 and had a normal findings of upper endoscopy and CT scan at the time. Coelio-mesenteric arteriography revealed a parietal arteriolar network with micro-aneurysms at the expense of the duodeno-jejunal angle arteries, ileal arteries, and gastric curvatures suggestive of gastroduodeno-jejunal vasculitis. The diagnosis was a micro-Periarteritis Noueuse. The patient was put on steroids with good clinical progress. 44-year-old patient admitted to the emergency department for hematemesis and melena, in whom the esogastroduodenal endoscopy showed duodenal jet bleeding, and whose abdominal CT scan revealed a pancreatic head tumor with duodenal invasion and two hepatic metastases. The patient underwent pancreatic duodeno-pancreatectomy (PCD) with metastasectomy and post-operative chemotherapy. She had a good clinical progress. A 67-year-old patient, admitted to the emergency department for hematemesis of great abundance, in whom upper endoscopy was normal, the abdominal CT scan revealed an aneurysm of the fistulized splenic artery in the antral region. She underwent resection of the aneurysm and ligation of the splenic artery without splenectomy with good outcome. 54-year-old female patient, admitted for high rectal bleeding, who required the transfusion of 8 red blood cell pellets. During the colonoscopy there was long active bleeding colon hindering the examination. She was transferred urgently to the operating room where she rapidly died. It was a renal tumor fistulated into the colon.

***Conclusion:*** Knowledge of the rare causes of digestive hemorrhage is essential. Their diagnosis is made by the combination of endoscopy with other imaging means thus allowing adequate management for each of these etiologies that can sometimes be life-threatening.

***Keywords:*** Gastrointestinal bleeding, rare etiology, management

***PP-419***

## *Cause of in hospital death in IBD patients during 2012-2018, Shiraz*

**Sulmaz Ghahramani, Kamran Bagheri Lankarani**

*Health Policy Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran*

***Background/Aims:*** Inflammatory bowel disease (IBD), including Crohn's disease (CD) and ulcerative colitis (UC), is a chronic intestinal inflammatory disease. Studies have documented increasing rates of hospitalization among patients with inflammatory bowel disease. There is an obvious need to elucidate in-hospital mortality of IBD patients as this has important implications for patients and public health planning. Due to lack of information about in-hospital mortality of IBD patients in our area, we aimed to establish the in-hospital cause of death for IBD in Shiraz from 2012 to 2018.

***Materials and Methods:*** The settings of this cross sectional study was the two Shiraz' university affiliated referral hospitals of IBD patients. Shiraz is the center of Fars province in south east of Iran. The Records of administrative inpatient and mortality data of IBD hospitalized patient for ≥1 day during 2012 to 2018 were reviewed. The main outcome measure was in-hospital mortality. Data including demographic characteristics of patients and cause of death were entered SPSS ver 18 and analyzed using descriptive and analytic statistics. Significant p value was set 0.05.

***Results:*** During study period, 438 patients were admitted with diagnosis of IBD in both hospitals. Mean age of admitted patients was 37±18 and most of them (276=63%) were Female. Out of the 438 admitted IBD patients, 14(3%) died during 7 years (2 CD and 12 UC patients). Overall in-hospital Mortality was 0.4% for CD, and 2.7% for UC. Mean age of deceased IBD patients was 50.8±23 and was not significantly higher than alive IBD patients (p: 0.22) and 9(64.3%) patients were female. Both CD patients died due to pulmonary thromboembolism (PTE). Causes of death for 2 UC patients were stroke and sinus venous thrombosis, 5 of UC patients died due to PTE, 5 died due to sepsis and one due to multi-organ failure. No death was occurred in last two years of study.

***Conclusion:*** Most of IBD patients in this setting died due to thromboembolic (TE) events. Although the particular etiology for association between IBD and thromboembolism is as yet unidentified, but it is thought that multiple factors are interacting and producing the increased predisposition for thrombosis in the local intestinal microvasculature, as well as in the systemic circulation. Compared other study, deceased IBD patients were younger (however not significant). So Clinicians' alertness of the risk of TE events in IBD patients, and their ability to prompt detection and manage thromboembolic complications are of utmost significance. Further population based cohort studies for assessment of standard mortality rate of IBD patients as well as factors affect on investment in decreased in-hospital IBD mortality rate is also recommended.

***Keywords:*** Cause of death, in-hospital, IBD, Shiraz

---

***PP-420***

## *Effects of pancreatin therapy on gastrointestinal symptoms of type 2 diabetic patients*

**Mustafa Reşat Dabak[1], Engin Ersin Şimşek[2], Sabah Tüzün[2], Can Öner[2], İsmet Tamer[3], Ekrem Orbay[2], Oya Uygur Bayramiçli[4]**

*[1]Department of Family Medicine, İstanbul Haseki Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Family Medicine, Kartal Dr Lütfi Kırdar Training and Research Hospital, İstanbul, Turkey*
*[3]Department of Family Medicine, İstinye Universitesi School of Medicine, İstanbul, Turkey*
*[4]Private Office*

***Background/Aims:*** Gastrointestinal symptoms are more common in individuals with type 2 diabetes mellitus (DM) in comparison to normal population. This study aims to evaluate the effects of the pancreatin therapy on the gastrointestinal symptoms of DM.

***Materials and Methods:*** This retrospective study included patients with type 2 DM presented to the Gastroenterology Department between February to July 2017. Age, HbA1c, level of C-peptide, triglyceride, antidiabetic treatments, fecal elastase levels are evaluated retrospectively. The gastrointestinal system complaints of the patients, who were considered to suffer from the exocrine pancreatic insufficiency, consisted of abdominal pain, bloating, constipation and diarrhea. These compliants were evaluated before and after the 25000 IU pancreatin therapy.

***Results:*** The study included 35 patients with DM, the mean age was 59.08±7.57, and 24 of the patients (68.57%) were female. The exocrine pancreatic insufficiency was detected in one of the patients (2.86%). Prior to the pancreatin therapy, 33 (94.29%) of the patients were determined to have abdominal pain, 34 (97.14%) had bloating, 33 (94.29%) had constipation and 32 (91.43%) had diarrhea. After the therapy, 29 (82.86%) of the patients were found to have abdominal pain, 31 (88.57%) had bloating, 31 (88.57%) had constipation and 29 (82.86%) had diarrhea. Table 1 gives a summary of the severity of the gastrointestinal system symptoms before and after the pancreatin therapy.

***Conclusion:*** Gastrointestinal symptoms of patients with type 2 DM can be treated with pancreatic enzyme replacement therapy.

***Keywords:*** Exocrine pancreatic insufficiency, diarrhea, constipation, abdominal pain

***Table 1.*** Severity of the gastrointestinal system symptoms before and after the pancreatin therapy

| | Before treatment (n=35) | After treatment (n=35) | p |
|---|---|---|---|
| Abdominal pain | 2.00 (0.00-4.00) | 1.00 (0.00-5.00) | 0.015 |
| Bloating | 4.00 (0.00-5.00) | 2.00 (0.00-5.00) | <0.001 |
| Constipation | 3.00 (0.00-5.00) | 2.00 (0.00-5.00) | 0.001 |
| Diarrhea | 1.00 (0.00-5.00) | 1.00 (0.00-4.00) | 0.024 |

***PP-421***

## *Investigation of column polyp properties, single center experience*

**Mustafa Zanyar Akkuzu, Serkan Yaraş, Osman Özdoğan, Enver Üçbilek, Fehmi Ateş, Engin Altıntaş, Orhan Sezgin**

*Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Gastrointestinal polyps are proliferative and neoplastic lesions originating from mucosa and submucosa epithelium and protruding into the gastrointestinal lumen. Early diagnosis of colorectal cancers is important because of the long course of the disease. In this study, we aimed to determine the demographic data, histopathological features, malignancy potentials and characteristics of patients with colon polyps in our region by evaluating the results of 5-year colononoscopic polypectomy.

***Materials and Methods:*** The reports of patients over 18 years of age who underwent colonoscopic polypectomy between 2014-2019 in our hospital were determined by retrospective scanning. Demographic characteristics, localization, diameter and histopathological characteristics of polyps were evaluated.

***Results:*** 180 patients who underwent polypectomy were examined. The total number of materials we examined was 240. One hundred twenty-five (69.44%) of these patients were male and fifty-five (30.55%) were female. The mean age of the males was 59.24±14.39 years and the mean age of the females was 57.22±11.33 years. Histopathological features of the polyps were one hundred ninety-six adenomatous polyps, twenty-four hyperplastic polyps, eight adenocarcinomas, seven inflammatory polyps, two mixed types (hyperplastic+adenomatous), two mild chronic nonspecific inflammation and one focal erosive area.

***Conclusion:*** In our study, polyps were more common in men aged 50-60. According to localization, polyps were mostly localized in sigmoid colon and rectum in 26.66% and 24.16%, respectively. In our study, 85.76% of the polyps were neoplastic polyps. Adenomatous polyps were detected in 81.66% of all polyps, and 67.35% of them were tubular adenoma, 27.55% of tubulovillous adenoma, 2.55% of voice serrated adenoma, 1.90% of flat adenoma and 0.51 were villous adenomas. This may be associated with Mediterranean type nutrition.

***Keywords:*** Colon polyps, adenomatous polyps, Mersin

***PP-422***

## *Stenting in digestive system stenosis: Single center experience*

**Mustafa Zanyar Akkuzu, Osman Özdoğan, Serkan Yaraş, Enver Üçbilek, Fehmi Ateş, Engin Altıntaş, Orhan Sezgin**

*Department Of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Use of esophageal stents; the use of palliative for esophageal cancer in advanced stages for palliative purposes, for clarity due to external compression of the esophagus in lung cancer, for benign reasons such as stricture and esophagitis, for the closure of fistulas and for postoperative stenosis in gastric malignancies are increasing recently. We aimed to share the reasons for stenting, complications, survival, demographic data of our patients and our clinical experience about stents that are used less frequently in stenosis.

***Materials and Methods:*** A total of 25 stent cases with stent placement for various reasons were included in the study. From these retrospectively analyzed data, the reason for stent placement, type of stent, whether there were complications, management of complications and survival of the patients were examined. The efficacy and survival of stents in palliative treatment were evaluated especially in advanced cancers.

***Results:*** Seventeen (68%) of the patients were male and 8 (32%) were female. The mean age of the males was 66.05±13.46 years and the mean age of the females was 46.85±11.83 years. When we examined the clinical data of our patients, it was esophageal cancer (40%) and palliative stents were placed in these patients. Nine (36%) patients were still alive. The mean survival of the remaining 16 patients was 103.12 days. Seven (28%) of these patients had a life expectancy of less than one month.

***Conclusion:*** The use of metallic stents in palliation of patients with non-operative digestive system stenosis is an effective method for short-term quality palliation due to lack of mortality and limited morbidity. Alleviating malignant and benign dysphagia can be achieved by using self-expanding metal stents.

***Keywords:*** Esophageal stents, self-expanding stents, palliative support

***PP-423***

## *Non-surgical management of esophageal perforation and fistulae-9 cases managed conservatively in Pakistan*

**Om Parkash, Samana Shah, Shah Yousaf**

*Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Esophageal perforation, spontaneous or iatrogenic, is considered a difficultly managed clinical condition. Esophageal perforation during surgery or endoscopy is a devastating complication resulting in significant morbidity with

pneumomediastinum, pneumothorax, subcutaneous emphysema, sepsis. There is significant mortality, ranging from 12% to 50%, associated with operative repair of perforation. Surgical and conservative approaches are both characterized by considerable morbidity and mortality. The application of self-expanding covered metallic stents offer an alternative treatment to surgery. In case series, endoluminal esophageal stent placement was found to be an effective method for the treatment of acute, iatrogenic perforations of the intrathoracic esophagus. These resulted in rapid leak occlusion, provided opportunity for early oral nutrition, and were noted to significantly reduce hospital length of stay, being removable they avoided the potential morbidity of operative repair.

***Materials and Methods:*** Over a 18 month period, patients found to have an esophageal perforation at a tertiary care medical center were offered endoluminal esophageal stent placement instead of operative repair of the esophagus as initial therapy. Self expandable covered metallic stents were placed endoscopically utilizing general anesthesia and fluoroscopy. Adequate drainage of infected areas was also simultaneously achieved. Leak occlusion was confirmed by esophagram. Patients were followed until their stent was removed and their esophageal leak had resolved.

***Results:*** Of the 5 patients who presented with iatrogenic esophageal perforations, 3 presented to the center within 48 hours, these underwent esophageal stenting with self expandable metal stents and had healing of perforation with 2 patients undergoing removal of stent within 6 weeks. Late presentation resulted in prolonged hospital stay and significant morbidity, with need of repeat stenting because of non-healed perforation Timely intervention with stent placement eliminated the need of surgical repair, surgery was required as additional procedure for drainage. Patient who presented with malignant perforation was managed with esophageal stenting, stent was retained and allowed for palliative care. Patient presented with Boerhaave syndrome within 24 hours of symptoms, was managed with VATS and esophageal stenting. The stent was removed before complete healing of perforation because of patient intolerance. One patient died 25 days after presentation with severe sepsis, metabolic acidosis, renal failure and refractory hyperkalemia. He presented three days after esophageal perforation after balloon dilatation at outside center underwent esophageal stenting, and chest tube insertion 72 hours after injury, and video assisted thoracotomy and drainage. 120 hours after perforation, for empyema.

***Conclusion:*** Self expandable covered metallic stenting is a good alternative treatment option to surgical repair for esophageal perforation in experienced hands. They result in reduction of surgery related morbidity and cost, length of hospital stay.

***Keywords:*** Esophageal perforation, esophageal stenting

---

***PP-424***

## *The clinical features and management of esophageal stricture at Dr. Soetomo General Academic Hospital Surabaya Indonesia*

**Imroati Tri Asih, Sugihartono Titong, Widodo Budi, Kholili Ulfa, Maimunah Ummi, Purbayu Herry, Setiawan Poernomo Budi, Nusi Iswan Abbas**

*Dr. Soetomo General Academic Hospital, Surabaya, Indonesia*

***Background/Aims***: The first-line treatment of benign esophageal strictures consists of dilation via a balloon or bougie. If refractory to dilation and corticosteroid injection, the next option is often expandable stent placement. There are no good data to support the superiority between dilating balloon and bougie dilators methods, their use depends mostly upon personal preference. This case reports aims to show the clinical features and management of esophageal stricture at our center.

***Materials and Methods***: Five patients with esophageal stricture at Gastrointestinal Endoscopic Center of Dr. Soetomo General Academic Hospital Surabaya have been followed from February 2018 until July 2019.

***Results***: From five patients, there were four males and one female, with age 24-68 years. The patients chief complaint was solid food dysphagia, which is progressive with weight loss. Another complaints were chest pain, odynophagia and heartburn.

The suspected etiology were autoimmunity, idiopathic, tuberculosis, gastric acid reflux, and corrosive agent ingestion. Most of them were located at medial segment of esofagus, and the co-exist endoscopic findings were esophageal web, laryngo-pharyngeal reflux, fundal divertikulum, and gastroduodenitis. The stricture management of these patient consisted of dilation via balloon (one patient) or Savary-Gilliard bougie (four patients), followed by triamcinolon acetonic injection intra lession at four quadrants (four patients). Four patients were still followed until now, which were one patient without complaint after the first dilation, one patient had recurrent stricture, one patient felt that his complaint had improved, one patient had no improvement.

***Conclusion***: In our health center, most patients with esophageal stricture are men, middle ages, with complaints of progressive dysphagia and weight loss. The etiology of this disorder varies greatly. The management includes balloon dilatation and/or Savary-Gilliard bougie at one week intervals followed by intralesional corticosteroid injection. The four patients still being followed until now, while one patient has no complaints.

***Keywords:*** Esophageal stricture, endoscopic dilation

---

***PP-425***

## *Crohns disease discovered by adenocarcinoma colon cancer*

**Yasmine Fetati[1], Mona Boudabous[2]**

*[1]Department of Hepatogastroenterology, Hedi Chaker Hospital, Sfax, Tunisia*
*[2]Department of Carcinology, Hbib Bourguiba Hospital, Sfax, Tunisia*

***Introduction:*** Inflammatory bowel disease predisposes to a higher risk of developing colorectal cancer, especially for old diseases that have been evolving for more than 10 years. Thus, patients with these diseases should undergo routine endoscopic surveillance to detect neoplasia. However, it is unusual to discover Crohn's disease after the development of cancer.

***Case:*** We present the case of a 62-year-old male, former smoker, with Crohn's disease in the family background, who consults for feverish abdominal pain with a normal bowl movement. Abdominal tomography showed a circumferential thickening of the last ileal loop next to a 5 centimeter abscess. The decision was to perform an exploratory laparotomy and an ileo-coecal resection after failure of antibiotics. The pathological examination of the resection piece showed a mucinous adenocarcinoma classified pT4aN1a; as well as a segmental ileocolic inflammation suggestive of Crohn's disease. The diagnosis of Crohn's disease was established by clinical, radiological (MRI), endoscopic (Colonoscopy) and pathological features, showing the disease affected the ileal loop. The patient received chemotherapy for his tumor and has been followed up, he stayed reasonably well and no treatment for Crohn's disease has been introduced.

***Conclusion:*** Colorectal cancer remains a real public health problem. Diagnosis and early management is a therapeutic challenge because it is potentially treatable by curative surgery and adjuvant chemotherapy. The knowledge of the risk factors of which inflammatory bowel disease is essential. But when Crohns disease has evolved without symptoms for a long time as is the case in our patient, the diagnosis remains difficult. Thereby, the simultaneous discovery of colorectal cancer and IBD can be a real therapeutic challenge. Which maintenance treatment for Crohn's Disease should we introduce? Where does immunosuppressive therapy fit in this particular case, notably that we know how this therapy should be avoided in case of cancer? In that situation, radical surgery should be discussed. Indeed it is a standard surgery in case of colorectal cancer complicating IBD. Therefore, ought we to total up the bowl resection by a second surgery? Colorectal adenocarcinoma is tumor a with an easy diagnosis, conferring a good prognosis. Physicians should have a high level of suspicion of cancer in patients with longstanding Crohns disease. But should also think of the possibility of quiescent disease.

***Keywords:*** Crohn's disease, ileo-coecal adenocarcinoma

***PP-426***

## *Endoscopic aspects of stomach cancer: About a university series*

**Manal Mahmoudi, Nawal Lagdali, Camelia Berhili, Imane Benelbarhdadi, Mohamed Borahma, Fatima Zahra Ajana**

*Department of Gastroenterology, Ibn Sina University Hospital, Mohamed V University, Souissi, Rabat*

***Background/Aims:*** The purpose of our work is to describe the endoscopic; epidemiological; histological and prognostic aspects of gastric cancer.

***Materials and Methods:*** This is a descriptive retrospective study over a period of 7 years of interest to patients with gastric cancer. The data is retrieved from the archived files.

***Results:*** We collected 156 cases, 90 men and 66 women, with a median age of 59 years (35.76); the most affected age group was less than 65 years old. Toxic habits were found in 19.84% of cases and a family history in 2.3%. The mode of revelation was epigastralgia: 49.6%, weight loss with deterioration of the general state: 52%, upper gastrointestinal haemorrhage: 25.19% of cases, and anemic syndrome 3%. Gastrointestinal endoscopy revealed a burgeoning ulcerative process: 74%, hypertrophic large folds: 12.5%, gastric ulcer appearance in 9.37% and ulcerated polyploid formations: 4.13%. The histological types were: adenocarcinoma: 54%, kittens ring cell carcinoma: 30%, B lymphoma: 14%, neuroendocrine carcinoma: 1% carcinoid tumor: 1%. The extension assessment found a metastatic form in 61% of cases. The treatment was surgical + chemotherapy in localized forms, palliative in metastatic forms with symptomatic treatment if necessary.

***Conclusion:*** Our study shows that whatever the endoscopic and histological profile, the diagnosis is often made at a late stage, thus justifying an awareness of the population and health personnel of the need for an early diagnosis of gastric cancer. This in the absence of an early detection policy and the eradication of Helicobacter Pylori (HP).

***Keywords:*** Endoscopic aspects-stomach cancer-histological

---

***PP-427***

## *Complete resolution of migraine attacks after adalimumab therapy in a crohns disease patient*

**Özlem Yönem[1], Özgür Yeniova[2], Engin Altınkaya[1], Hilmi Ataseven[1], Erol Çakmak[1]**

*[1]Cumhuriyet University School of Medicine, Sivas, Turkey*
*[2]Tokat Gaziosmanpaşa University School of Medicine, Tokat, İstanbul*

Migraine is a common neurological disorder affecting 10-20% of the population. Migraine pathophysiology is incompletely understood. A link between TNF-alpha and migraine is plausible, since TNF-alpha can stimulate transcription of calcitonin gene-related peptide (CGRP), which plays a pivotal role in migraine pathophysiology. However Anti-TNF therapy is not used as routine therapy for migraine. A 27 year old patient who had Crohns disease since 2016 applied to our clinic with abdominal pain and diarrhoea. She was under remission with azathioprine until that time. Workup for bacterial infection was negative and colonoscopy showed ulcerations of the ileum and colon. A decision was made to initiate induction therapy with the anti-tumor necrosis factor (TNF) agent adalimumab 160 mg s.c. then 80 mg s.c. 2 weeks later, followed by maintenance therapy at a dose of 40 mg s.c. every 2 weeks. Her symptoms related with Crohns disease resolved after therapy. At her control visit at the 4$^{th}$ month she told that she had been suffering from menstrual migraine since she was 18 years old. She had used frovatriptan during her attacks and she told that this drug did not ever relieve her terrible headaches. Her migraine headaches completely disappeared after initiating adalimumab therapy. We think that this is a valuable observation as the prevalence of migraine in general population is high and quality of life during migraine attacks is disturbed. Further studies are needed to prove our observation.

***Keywords:*** Migraine, adalimumab, crohns disease

***PP-428***

## *The effect of tamoxifen on metastasis in gastric cancer stem cells derived from MKN-45 cell line*

**Hassan Akrami, Ali Reza Safarpour, Mohammad Reza Fattahi**

*Gastroenterolohepatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran*

***Background/Aims:*** Gastric cancer (GC) with 1,000,000 new cases in 2018 is the fifth most common cancer worldwide and an estimated 783,000 deaths making it the third leading cause of cancer-related death. Cancer Stem Cells (CSCs) are the subpopulation of cancer cells with the ability to initiate uncontrolled cell proliferation, metastasis and self-renewal. Isolation and identification of gastric cancer Stem Cells (GCSCs) maybe provide a new treatment approach for GC. Drug repositioning is efficient and low-cost strategy that old drugs used for new targets. Tamoxifen is a non-steroidal anti-estrogenic drug with antitumor effect and can inhibit the growth of breast and prostate cancer cells. In this study for the first time, the effect of tamoxifen on metastasis was investigated in the GCSCs.

***Materials and Methods:*** GCSCs of MKN45 cell line was isolated by the spheroid colony formation technique. GCSCs were treated by different concentration of tamoxifen at 0, 25, 50, 100, 200, 400 and 600 μM to obtained the cytotoxicity effect of tamoxifen on GCSCs.Metastatic potential of GCSCs treated with 100 μM of tamoxifen compared to control cells was determined using the zymography techniqueon 48 h.

***Results:*** Spheroid body cells isolated from MKN45 cell line without using growth factors have stemness properties. The GCSCs treated with 100 μM tamoxifen showed MMPs activities were significantly reduced in GCSCsin compared with untreated GCSCs ($p<0.001$).

***Conclusion:*** Drug discovery is a time-consuming, costly, high-risk process and low success rate of developing a new drug. Therefore, finding novel therapeutic targets for existing drugs can be an efficient strategy to treat diseases.The results of this study indicated that tamoxifen significantly decreased metastasis and MMPs activities in GCSCs.

***Keywords:*** Gastric carcinoma, metastasis, tamoxifen, GCSCs, stem cell

---

***PP-429***

## *Incidence of "slipped off stones" in the common bile duct following laparoscopic cholecystectomy in patients who have undergone prior endoscopic retrograde cholangio pancreaticography (ERCP) and complete bile duct stone clearance*

**Chandrasekar Thoguluva Seshadri, Sathiamoorthy Suriyanarayanan, Gokul Bollu Janakan, Raja Yogesh Kalamegam, Prasad Menta Sanjeevaraya, Sabarinathan Ramanathan, Viveksandeep Thoguluva Chandrasekar**

*Medindia Hospitals, Nungambakkam, Tamilnadu, India*

***Background/Aims:*** Patients with concomitant Gall Bladder (GB) and Common Bile Duct (CBD) stones undergo Endoscopic Retrograde Cholangio Pancreatography (ERCP) for CBD stone extraction initially, with or without CBD stenting followed by cholecystectomy and CBD stent removal as the standard of care. Manipulation of GB during cholecystectomy may result in inadvertent slippage of stones from the GB into the CBD (''slipped off stones'') which is not reported in literature. The aim is to identify the incidence of ''slipped off stones'' in CBD during stent removal.

***Materials and Methods:*** Single centre: MedIndia Hospitals, Chennai, Tamilnadu, India. Study Type: Retrospective, observational. Study period: January 2018-June 2019. Study patients: Consecutive patients of concomitant GB and CBD stones

detected either by ultrasound, CT scan, or MRCP who had undergone ERCP and complete stone clearance confirmed by occlusion cholangiogram and CBD stenting for cholangitis and subsequent laparoscopic cholecystectomy within 48 hours and CBD stent removal within 1 month of cholecystectomy. Primary Outcome Measures: Presence of common bile duct stones during stent removal.

***Results:*** Medicals records of 50 patients who satisfied the inclusion criteria were analyzed. The incidence of ''slipped off stone'' was 14% (7/50). The mean age was 55.4 years with a female preponderance (5/7). All patients had single small black CBD stone and the stone size was 5 mm in 57.14% (4/7). During laparoscopic cholecystectomy 57.14% (4/7) had multiple small black GB stones, 85.7% (6/7) had difficult and prolonged procedure due to adhesions and 28.57% (2/7) had empyema GB.

***Conclusion:*** There was a significant incidence of ''slipped off stones'' identified during CBD stent removal after difficult and prolonged cholecystectomy in patients with concomitant CBD and multiple small GB stones. Complete clearance of CBD should be documented by balloon sweeping and occlusion Cholangiogram after CBD stent removal to avoid cholangitis.

***Keywords:*** Concomitant CBD and GB stones, post ERCP and cholecystectomy, ''slipped off stones''

---

***PP-430***

## *Small intestinal adenocarcinoma after forty years of celiac disease*

**Hülya Çetinkaya[1], Mesut Gümüşsoy[1], Mehmet Bektaş[1], Akın Fırat Kocaay[2], Berna Savaş[3]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of General Surgery, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*

***Introduction:*** Small intestine neoplasms constitute only 0.6% of all cancers and 1-3% of gastrointestinal malignant neoplasms. There are only limited number of studies showing association of celiac disease and small intestinal adenocarcinomas in which female gender, younger age of onset seem to be risk factors. Here we present a male patient diagnosed with small intestinal adenocarcinoma.

***Case:*** A 64-year-old male admitted with complaints of vomiting, abdominal pain, and 30 kg.s of weight loss in the last year. In his medical history, he was diagnosed with celiac disease at 24 years of age and was in clinical remission since then with strict gluten-free diet. In physical examination, he had abdominal tenderness, and his abdominal X-ray was compatible with ileus. In laboratory evaluation he had anemia, hypoalbuminemia, iron deficiency, elevated INR, and high celiac autoantibody levels. Other results, including vitamin B12, folate levels, liver and kidney function tests and tumor markers were in the normal range. Abdominal-CT showed features suspicious for ileus. Radiographic evaluation with barium revealed 5 cm dilatation in the small intestine. He was diagnosed with chronic pseudo-obstruction. In clinical follow-up his complaints relieved and he was discharged. Three months after discharge, he admitted to emergency department with same clinical picture. In abdominal CT, dilatation and thickness in the jejunal wall suspicious of malignancy and LAP in the mesenteric area were detected. Single-balloon enteroscopy revealed jejunal dilatation, ulcer in the jejunum narrowing the passage. PET-CT results showed pathological SUV max value (24.6) around the narrowed area. Pathological diagnosis of the laparoscopically resected segment was poorly differentiated adenocancer, with serosal and lymphovascular invasion. The patient is on FOLFOX treatment regimen now.

***Coclusion:*** Celiac disease may be complicated with malignancy even in patients with diet compliance in long term follow up. This possibility should be kept in mind during follow up and anytime patient admits with a different complaint than usual.

***Keywords:*** Celiac, adenocarcinoma, malignancy

***PP-431***

## *Budd-chiari syndrome: About 20 cases*

**Irambona Aimé-parfait, Benelbarhdadi Imane, Berhili Camilia, Laghdali Nawal, Borahma Mohamed, Ajana Fatima Zahra**

*CHU Ibn Sina, Rabat, Morocco*

***Background/Aims:*** Budd-Chiari syndrome (BCS) is a rare condition. It results from obstruction of hepatic venous drainage, from hepatic venules to the terminal part of the inferior vena cava (IVC), whatever the cause of the obstruction. The objective of this study is to specify the different epidemiological aspects, etiologies of SBC and evolution under treatment.

***Materials and Methods:*** This is a retrospective study including all patients with BCS collected in our department between 2006 and June 2019.

***Results:*** 20 patients were included in our study. The mean age was 29.7 years and the sex ratio F/M was 3. The clinic was dominated by ascites in 70% of cases (n=14), abdominal pain in 35% of cases (n=7) and haematemesis in 30% of cases (n=6). Abdominal ultrasonography coupled to Doppler showed thrombosis of Hepatic veins (HV) in 50% of the patients (n=10), thrombosis of IVC and HV in 25% of the patients (n=5), thrombosis of the IVC in 15% patients (n=3), GHV with an intrahepatic portosystemic shunt in 5% of cases (n=1), and tumor infiltration of HV by HCC in 5% of patients (n=1). BCS was primary in19 patients and second in one patient. The etiological assessment revealed: Behcet's disease (n=4), thrombophilia (n=4), myeloproliferative disorder (n=2) including 1 case of CML and 1 case of essential thrombocytemia, Khaler's disease (n=1), antiphospholipid A syndrome associated with protein C and ATIII deficiency (n=1), systemic sarcoidosis (n=1), celiac disease (n=1), Biermer's disease (n=1) and one case of secondary BCS at HCC. In addition, the etiological assessment was negative in 4 patients. Specific treatment was initiated, associated with anticoagulant therapy in 14 patients and symptomatic treatment of Portal hypertension. The evolution was marked by the repermeabilisation of the thrombosed vessels on the data of the echodoppler of control in 50% of the cases (n=7).

***Conclusion:*** Our work reflects the diversity of etiologies of the BCS. The importance of the anticoagulant treatment which allowed the recanalization of the thrombosed vessels (RTV) in 50% of the patients is emphasized. Treatment of the cause of BCS should be done where possible.

***Keywords:*** Budd-Chiari syndrome (BCS), behcets disease, recanalization of the thrombosed vessels (RTV)

---

***PP-432***

## *Prompt upper endoscopy versus the test and treat strategy for uninvestigated dyspepsia, a decision tree analysis and the relevant sensitivity analyses*

**Siavosh Nasseri-moghaddam[1], Amir Anoushiravani[1], Gordon Guyatt[2]**

*[1]Digestive Diseases Research Institute, Tehran University of Medical Sciences, Tehran, Iran*
*[2]McMaster University, Ontario, Canada*

***Background/Aims:*** Dyspepsia affects about 20% of the global population. Considering that major guidelines have no consensus on the appropriate age of recommending endoscopy for uninvestigated dyspepsia, and that their recommendations are mostly based on the prevalence of upper gastrointestinal cancers, we assessed a model of dyspepsia in a high prevalence area to see when does endoscopy actually make a difference in its management.

***Materials and Methods:*** The study question was: "Under what circumstances of utility and cancer prevalence, is prompt endoscopy more valuable than the test and treat strategy for approach to a patient with uninvestigated dyspepsia in the

community". The following steps were taken: development of a decision tree with a base case, introducing the probabilities and utilities in their proper places in the decision tree, determination of the expected values of each strategy under the base case assumptions, and finally performing sensitivity analyses to assess the model under circumstances different from the base case.

***Results:*** Pathways to the outcomes were presented to twelve physicians (ten gastroenterologists, four females, mean age 43.6+/-9.1 years), and twenty patients (twelve females, mean age 45.6+/-13.7 years) in detail and they were asked to assign a utility from zero to one to each. This was done in face to face interviews. The expected values for the endoscopy and "test and treat strategies" were 0.721 and 0.980, respectively. The test and treat strategy was the winner with the basic assumptions. We showed that only when the prevalence rate of upper gastrointestinal cancer in the population under investigation was 69.0%, the two strategies got equal expected values. With less than 2% disutility of endoscopy, endoscopy would have an expected value almost equal to the test and treat strategy at a background prevalence rate for upper gastrointestinal cancers of 3.0%.

***Conclusion:*** Dyspepsia is a common problem worldwide, yet the optimal approach and management remains to come. Our decision tree model indicates that utility is the major determinant of whether endoscopy is justified as first line assessment in uncomplicated dyspepsia, not the cancer prevalence rates.

***Keywords:*** Dyspepsia, endoscopy, cost utility, sensitivity analysis

---

***PP-433***

## *Fungal infections in patients with chronic liver disease: mortality and associated risk factors*

Shahid Rasool, Ahmad Babar

*Madina Teaching Hospital, Faisalabad, Pakistan*

***Background/Aims:*** Fungal infections in patients admitted with liver cirrhosis are not rare and they may increase mortality and morbidity of these patients. Aims is to determine the mortality and its risk factors associated with fungal infections in patients with chronic liver disease.

***Materials and Methods:*** In this retrospective study patients admitted with chronic liver disease during last four years in our hospital were studied for diagnosed fungal infections. A matched control group of cirrhosis patients with a ratio of 1:2 admitted without fungal infections was also studied and mortality was compared between the two groups.

***Results:*** Seventy admitted patients of liver cirrhosis with microbial and histopathological evidence of fungal infection were found while 140 patients of control group had no evidence of fungal infection. Hepatitis C virus infection was the major cause of cirrhosis (65%) and most of the patients were in child class C (63%). Urinary tract infection, esophageal candidiasis and mucormycosis were major fungal infections. Mortality was much higher in the fungal infections group (34.3%) as compared to non-infectious group (16%). On multivariate analysis, high WBCs count, hypoalbuminemia and high creatinine levels were the worst factors effecting mortality.

***Conclusion:*** Fungal infections are a significant cause of morbidity and mortality in patients with decompensated cirrhosis. Advanced cirrhosis, renal insufficiency and leukocytosis are independent predictors of fatal outcome in these patients.

***Keywords:*** Fungal infection, liver cirrhosis, mortality

***PP-434***

## *Are complications more frequent in malnourished cirrhotic patients?*

**Mirabela-madalina Topan, Mirela Danila, Roxana Sirli, Ana-maria Ghiuchici, Calin Burciu, Andreea Corobea, Ioan Sporea**

*Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** In chronic liver disease, malnutrition is a frequent burden and this has a detrimental effect on the outcome of the patients. The aim of the study was to investigate the frequency of serious complications between cirrhotic patients with and without malnutrition.

***Materials and Methods:*** Data were collected from patients with advanced liver fibrosis of different etiologies admitted in our department. We assessed the nutritional status of these groups according to the SGA and the score PG-SGA and anthropometric measurements (skinfold-thickness, BMI, mid arm circumference and hand grip strength). Characteristic of cirrhotic patients with and without malnutrition were compared. We searched for ascites, infections, hepatic encephalopathy and variceal bleeding.

***Results:*** 150 patients were included, with a mean age of 62.66±10 years. 25% had compensated liver cirrhosis and 75% were decompensated. The main etiology was alcoholic liver disease 50%. The prevalence of malnutrition was 73% in patients with decompensated liver cirrhosis and 27% in patients with compensated disease. The development of serious complications was closely related to the nutritional status. 74% of the malnourished patients developed ascites versus 48% in the well-nourished group (p=0.001; OR=3.1); Infections occurred in 28% of the cases in patients with malnutrition vs 14% in patients without (p=0.001; OR=4.3). 1-3 grade hepatic encephalopathy was present in 19% of the patients, 65% of them were severely malnourished. 35% of the malnourished patients had a variceal bleeding episode compared with 12% in patients without malnutrition (p=0.01).

***Conclusion:*** The presence of serious complications was significantly more frequent between cirrhotic patients with malnutrition than in those without malnutrition so it is of particular importance to identify malnourished patients so that nutritional therapy can be instituted.

***Keywords:*** Malnutrition, complications, cirrhosis

---

***PP-435***

## *Rutgeerts score: What impact in the management of Crohn's disease?*

**Tarik Gharbi, Hicham El Bacha, Nadia Benzzoubeir, Nada Azib, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-Gastroenterology and Proctology Service, Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Given that surgery does not cure Crohns disease, it is common to observe postoperative recurrences that may lead to new surgical resections. The main issue during postoperative recurrence is to make the diagnosis before the clinical recurrence to be able to propose a therapeutic management before the reappearance of the symptoms. Endoscopic examination is the gold standard in this situation, as the ECCO consensus has pointed out. It allows the use of the Rutgeerts score to formulate a prognosis for relapse and therefore to adapt the therapeutic strategies.

***Materials and Methods:*** This is a retrospective, single-center study conducted at the Hepato-Gastro-Enterology and Proctology service "Medecine B" in IBN SINA university hospital, which included 57 patients with Crohns disease operated from January 2010 to January 2019 out of a total of 248 Crohns patients over the same period. The Rutgeerts score was used to detect endoscopic postoperative recurrence (OPR) which was defined as ≥i2. Clinical postoperative recurrence was defined

as the recurrence of symptoms leading to hospitalization or therapeutic modification. Surgical postoperative recurrence was defined as the recurrence of symptoms requiring bowel resection.

***Results:*** 53 out of 57 operated Crohns diseases were included. The mean age of the patients was 41.8 years, a sex-ratio H / F at 1.1, the median time between surgery and endoscopy was 13.5 months.13 patients (36.1%) had a score i2. Nearly 3/4 of the patients had a therapeutic escalation in case of endoscopic postoperative recurrence. A strategy based on endoscopy was associated with a clear decrease in the risk of clinical postoperative recurrence and new surgery.

***Conclusion:*** A postoperative strategy based on systematic endoscopy ideally performed between 6 and 12 months after surgery should be adopted in all patients with intestinal resection for Crohns disease since it is associated with a reduced risk of clinical RPO and surgical in the medium and long term.

***Keywords:*** Crohns disease, endoscopic postoperative reccurence, strategy based on endoscopy

---

***PP-436***

## *Association between vitamin D deficiency, malnutrition and hepatic encephalopathy in patients with chronic liver disease*

**Mirabela-Madalina Topan, Mirela Danila, Roxana Sirli, Ana-Maria Ghiuchici, Calin Burciu, Andreea Corobea, Ioan Sporea**

*Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** Vitamin deficiencies in liver disease are related to hepatic dysfunction, diminished reserves and in severe disease-inadequate dietary intake and malabsorption. In the general population vitamin D deficiency has been demonstrated to be associated with loss of cognitive function, all-cause dementia and Alzheimer disease. The aim of the study was to investigate the relationship between vitamin D deficiency, malnutrition and hepatic encephalopathy in patients with chronic liver disease.

***Materials and Methods:*** Data were collected from 150 patients with advanced liver fibrosis of different etiologies admitted in our department (75% decompensated liver cirrhosis and 25% were compensated). We assessed the nutritional status of these groups according to the score PG-SGA and MAMC (malnutrition was defined as MAMC <23cm (men) and <18cm (women)). Vitamin D deficiency was defined as <20 ng/mL. Serum vitamin D levels were prospectively determined in 50 of the patients. We classified HE according to West-Haven clinical Criteria.

***Results:*** The prevalence of malnutrition was 73% in patients with decompensated liver cirrhosis. Moderated to severe vitamin D deficiency was identified in 32 (64%) patients all of them with sever liver disease (Child Pugh B or C). 1-3 grade hepatic encephalopathy was present in 19 (59%) patients. A significant correlation between vitamin D deficiency and malnutrition ($p<0.001$) and a significant correlation between malnutrition and the presence of hepatic encephalopathy ($p<0.0001$) was found. Patients with hepatic encephalopathy had severe vitamin D deficiency and were sever malnourished compared with non-encephalopathic patients.

***Conclusion:*** Vitamin D deficiency was common in the majority of patients with chronic liver disease and was present in all patients with malnutrition. Severe vitamin D deficiency was associated with hepatic encephalopathy and sever malnutrition. This suggests that vitamin D deficiency and malnutrition may have an unrecognized role in the development of HE.

***Keywords:*** Vitamin D, hepatic encephalopathy, malnutrition

***PP-437***

## *Isolated pancreatic cyst hydatid disease*

**Ozan Cengiz[1], Soner Önem[1], Süleyman Dolu[1], Göksel Bengi[1], Müjde Soytürk[1], Özgül Sağol[2]**

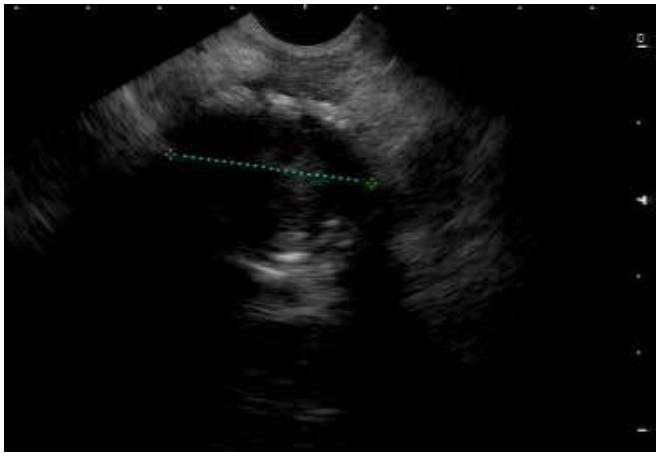
*[1]Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*
*[2]Department of Pathology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

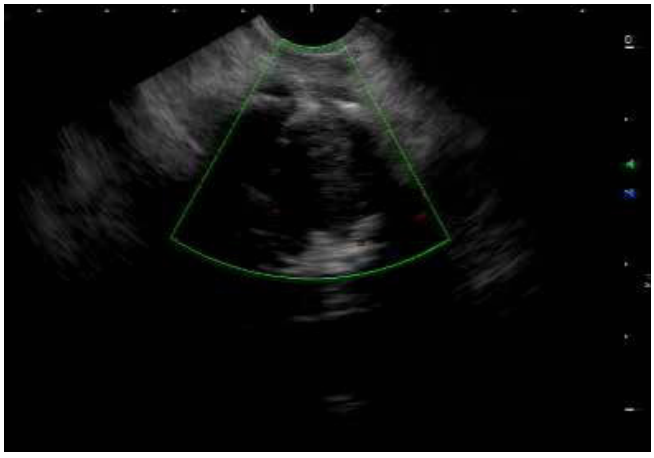
***Introduction:*** Hydatid cyst which caused by Echinococcus granulosus parasite is usually seen in liver and lung, it can also be seen in any organ and soft tissue. In the literature, the incidence of isolated pancreatic hydatid cyst is reported as 1-2%.The complaints of the patients vary according to the size and location of the cyst. Ultrasonography and cross-sectional images show the cyst anatomically but it is insufficient to diagnose the hydatid cyst. Serological tests are not always helpful in diagnosis. In this case, we present a patient with pancreatic cyst on cross-sectional imaging and diagnosed as pancreatic hydatid cyst after endoscopic ultrasonography Fine Needle Aspiration (EUS-FNA).

***Case:*** A 61-year-old male patient who had epigastric pain for 6 months with no known disease history was referred to our clinic to perform EUS because his computerize tomography had showed a 3 cm cyst showing peripheral calcification in the tail section of the pancreas tail and findings consistent with chronic pancreatic. Laboratory tests of the patient were normal. A linear EUS examination showed a calcified, heterogeneous, irregularly circumscribed, hypoechoic lesion with a diameter of approximately 2x3 cm in the pancreatic corpus-tail section, and a fine needle aspiration biopsy (FNA) was performed from this lesion. Pathological examination revealed a fragment and calcification consistent with hydatid cyst lamella membrane. The patient who had no other organ involvment on imaging was diagnosed as isolated pancreatic hydatid cyst.

***Conclusion:*** It is often difficult to make a differential diagnosis of pancreatic cystic lesions. Hydatid cyst of the pancreas is often confused with cystic lesions of the pancreas. Ultrasonography and cross-sectional images show the cyst anatomically but not enough to diagnose the hydatid cyst. Serological tests are not always helpful in diagnosis. EUS-guided FNA increased the rate of diagnosis of hydatid cyst in the pancreas which is a rare involvement. This method shows up as an important diagnostic tool that prevents unnecessary surgical intervention. Although isolated pancreatic involvement of cyst hydatid disease is rare, it is an antithesis that should be kept in mind in the differential diagnosis with cystic lesions of the pancreas in the regions where the disease is common.

***Keywords:*** Hydatid cyst, pancreas involvement





***PP-438***

## *Ascites in a young woman: A rare presentation of eosinophilic gastroenteritis*

**Belhadj Mabrouk Emna, Zaimi Yosra, Ayari Myriam, Ayadi Shema, Mouelhi Leila, Dabbèche Radhouène**

*Department of Gastroenterologyi, Charles Nicole Hospital, Bab Souika, Tunis*

Primary-eosinophilic-gastrointestinal disorders are characterized by abnormal accumulation of eosinophils in the gastrointestinal tract in the absence of secondary causes of eosinophilia. Eosinophilic ascites (EA) represent an unusual presentation of eosinophilic gastroenteritis. We report the case of a 29 years old white woman, without any medical history. She came to emergency department with a 2 weeks history of abdominal distention and vomiting without fever or abdominal pain. She presented distended abdomen with active bowel sounds and ascites. Hepatomegaly, splenomegaly, and abdominal mass were ruled out. Urgent abdominal ultrasonography confirmed these clinical signs but ruled out portal hypertension. A complete blood count revealed an increase in the white cell count (13 650 m/L with 6380 m/L eosinophils), elevated C reactive protein (25.8 mg/L), and normal results in the liver and renal function tests. Tumor markers, celiac serology, and digestive parasites were normal during admission. Serum IgE was elevated (>500UI/mL). A thoracic-abdominalpelvic computed tomography scan showed a hight abundance ascites without lymphadenopathies. Paracentesis revealed hematic fluid (total protein, 5.60 g/dL) with abundant count of eosinophils. Upper gastrointestinal endoscopy did not reveal macroscopic anomalies. Histopathology showed heavy infiltration of eosinophils corresponding to esophageal epithelium (35 cells/HPF). Stomach and duodenum biopsies were normal. With a high suspicion of EA, we started the patient on oral prednisone (60 mg/day). Symptoms resolved rapidly after a few days, the blood eosinophil count (1800 m/L) decreased, and the abdominal fluid gradually disappeared. Oral corticosteroids were maintained for 2 weeks and then tapered. The patient presented 3 similar episodes that were resolved after corticosteroid treatment. After 2 years follow-up, the patient was clinically asymptomatic without medication. Eosinophilic gastroenteritis is a rare condition with a highly variable clinical presentation. It is a diagnosis of exclusion. Secondary causes of eosinophilia such as intestinal tuberculosis, parasitosis, and malignant neoplasms should be excluded.

***Keywords:*** Ascites, eosinophil

---

***PP-439***

## *Autoimmune hepatitis in children presenting with seboroic dermatitis, anemia and moderate malnutrition: Difficulty in enforcement of diagnosis*

**Evi Rokhayati, Bagus Setyoboedi, Sjamsul Arief**

*Department of Child Health, Medical Faculty of Universitas Airlangga, Dr Soetomo Academic General Hospita,l Surabaya, Indonesia*

Autoimmune Hepatitis (AIH) is a chronic liver disorder which the body develops autoantibodies against liver tissue resulting in damage and loss of function. This condition can be triggered by dysregulation of the immune system, genetic predispositions, and environmental factors. Clinical, histological, and laboratory findings in each were different, can be coexist or overlap creating clinical and histological diagnostic difficulties. A 12 years old Indonesian girl presented with history of fever 1 month before admission and jaundice without previous similar history, no history of drug allergy, no family history of liver disease and no history of transfusions before. Examination revealed conscious girl, looks pale and jaundiced with no respiratory distress. Ideal Body Weight (IBW) was 70%. Abdominal examination: no distension, no ascites, no organomegaly. Skin: erossive, with thin squama all over the body, crusta at palpebra and lip. Laboratory tests found anemia, leukocytosis, thrombocytosis, hypoalbuminemia, increased serum transaminase, increased alkaline phosphatase, increased coagulation factor, serum electrolyte imbalance, cholestasis, coombs test direct was positive, decreased of C4, hepatitis serology and Anti-nuclear antibodies (ANA) were negative. Ultrasonography in normal limit. Work up Tuberculous disease was negative. Liver biopsy could not be

done because public insurance was not covered. The patient was treated with methylprednisolone, ursodeoxycholic acid, vitamin K. After 3 weeks hospital treatment she was discharged and follow up in policlinic.

***Keywords:*** Autoimmune hepatitis, children, diagnosis

---

***PP-440***

## *Spontaneous biliary cutaneous fistula in a child with billiary atresia and portal hypertension: A rare case report*

**Bagus Setyoboedi**

*Department of Child Health, Medical Faculty of Universitas Airlangga, Dr Soetomo Academic General Hospital, Surabaya, Indonesia*

Biliary cutaneous fistula or external biliary fistula is an abnormal communication between the biliary tree and the skin surface. It has been reported in fewer than 25 cases over the past 50 years. In children, this is an extremely rare condition. Only two cases have been reported in elderly age group patients. Underlying pathology was cholangiocarcinoma in both the cases. We present cases of spontaneous biliary skin fistulas that we have never met before and rarely occur in a child. An Indonesian girl, 1 year 10 months old came with the parents to the hospital with a yellowish discharging sinus in the epigastric region since 1 year ago. From history, she suffered from icteric since birth until 7 months old. Abdominal wall abcess appeared when she was aged 7 months with laboratory findings were leucocytosis and increased of C-reactive protein (145 mg/L). The abscess was already incised and drainaged. When abscess was improved, icteric was diappeared but the discharge became yellowish. She also with history of melena twice. The endoscopy found there were esophageal varices grade II-III, fundal varices and gastroduodenopathy congestive. The child came fully aware, no icteric the skin, good nutrition growth, development in accordance with their peers, and the child appear to be actively engaged. Laboratory finding revealed increasing level of serum transaminase with normal bilirubin. Ultrasonography revealed billiary atresia and subcutaneous fistula in epigastric region. Abdominal CT angiography revealed portal hypertension. Fistulography will held to confirm the diagnose and Kasai procedure is planned as the next management.

***Keywords:*** Biliary cutaneous fistula, external biliary fistula, abdominal wall abscess

---

***PP-441***

## *Hepatobiliary IgG4 related disease datas in a single center*

**Ozan Cengiz, Soner Önem, Süleyman Dolu, Yakup Duran, Zarni Htway, Farid Hajiyev, Ali Bilgen, Hale Akpınar, Ömer Topalak, Ender Ellidokuz, Mesut Akarsu, Müjde Soytürk, Göksel Bengi**

*Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

***Background/Aims:*** IgG4-related disease is an immune-mediated fibroinflammatory condition with a diverse spectrum of organ involvement, commonly in the pancreas and bile ducts among other organs such as salivary and lacrimal glands. The pathogenesis seems to be a mixture of Th1-and Th2-immune responses, whereas the role of the non-pathogenic IgG4antibodies is still unclear. Histopathological characteristics are a lymphoplasmacellular infiltrate with IgG4+ plasma cells, a storiform fibrosis and an obliterative phlebitis.These diseases should be differentiated from conditions with a similar presentation (eg, pancreatobiliary malignancy, primary sclerosing cholangitis) by comparison of serum IgG4 concentration, imaging features, other organ involvement, histology, and steroid responsiveness. We present the data of pathologically diagnosed IgG4-related diseases with gastrointestinal system involvement in in Dokuz Eylül University Research and Application Hospital.

***Materials and Methods:*** The data of 17 patients (6 female, 11 male) who evaluted because of hepatobiliary disorders and diagnosed with IGG4-related disease by pathologic examination between 2015-2019 in Dokuz Eylül University Research and Application Hospital were analyzed.

***Results:*** The mean age of these patients was 55 years and the youngest patient was 17 years; the oldest patient was 74 years old. CT / MR imaging of these patients; mass lesion in 9 patients, compatible appearance with autoimmune pancreatitis in 6 patients, cholelithiasis in 1 patient, undetermined choledoc duct dilatation were determined. Two of these patients were diagnosed with papilla biopsy taken during ERCP, 6 of them with EUS-FNA, 8 of them with whipple operation and 1 patient with cholecystectomy. The diagnosis was made in 2 patients with papilla biopsy taken during ERCP, in 6 patients with EUS-FNAB, in 8 patients with whipple operation and in 1 patient after cholecystectomy. The following table presents the diagnosis of patients with IgG4-related disease during imaging and the method used for pathological sampling.

***Conclusion:*** IGG4-related diseases worldwide is a new concept, awareness among clinicians is not yet sufficient. Igg4-associated autoimmune pancreatitis may display a pancreatic mass on imaging and therefore lead to unnecessary surgery, leading to morbidity and mortality. Autoimmune pancreatitis should be kept in mind in the differential diagnosis of pancreatic head cancer in patients presenting with painless jaundice with pancreatic mass on sectinal image, systemic organ involvement should be investigated, serum IgG4 level should be observed and lymphoplasmosis cell infiltration and IgG4 positive staining should be done for the detection of positive cells.

***Keywords:*** IgG4 releated disease, hepatobiliary

---

***PP-442***

## *Pancreatic cancer in liver transplant recipients*

**Peter Macinga, Darina Gogova, Klara Chmelova, Lukas Bajer, Sona Frankova, Jan Sperl, Julius Spicak, Tomas Hucl**

*Institute for Clinical and Experimental Medicine, Prague, Czech Republic*

***Background/Aims:*** The chronic use of immunosuppressive agents in liver transplant recipients increases the long-term risk of malignancy, compared with that of general population. The purpose of our study was to investigate incidence and characteristic of pancreatic cancer in liver transplant recipients.

***Materials and Methods:*** We performed a retrospective analysis of medical records of all adult patients who underwent liver transplantation in our center between years 1996 and 2017. All patients were treated by combination of calcineurin inhibitors and mycophenolate mofetil with or without concomitant corticosteroids.

***Results:*** In examined period, one thousand, three hundred fifty-two adult patients underwent liver transplantation in our center; the median follow-up was 60 (1-276) months. Adenocarcinoma of the pancreas was diagnosed in five patients (0.4%, SIR 1.76), four men and one woman. Average age of patients diagnosed with pancreatic cancer was 61 (56-67) years, the mean period between liver transplantation and occurrence of malignancy was 54 (26-136) months. Indications for liver transplantation were alcoholic liver cirrhosis (2x), overlap syndrome of primary sclerosing cholangitis and autoimmune hepatitis, liver cirrhosis due to chronic HCV infection and secondary sclerosing cholangitis. Four of five patients were non-smokers; the only smoker had tumor duplicity (lung cancer). Two patients were diabetics; one of them was diagnosed with new-onset DM six months prior to finding of cancer. One patient had chronic pancreatitis. One patient was diagnosed with stage IB cancer, all the others with stage IIB. Three patients underwent surgical treatment. Median overall survival was 3 (1-30) months, in resected group it was 12 (1-30) months.

***Conclusion:*** In our study, liver transplant recipients had higher incidence of pancreatic cancer compared to that of general population. They were diagnosed in younger age and with earlier stage of the disease. Despite that, the prognosis was unfavorable.

***Keywords:*** Pancreatic cancer, immunosuppression, liver transplantation

***PP-443***

## *Special features of CMV infection in chronic inflammatory bowel disease (IBD): About 20 cases*

**Hind Beggar, Ikram Errabih, Laaziza Ouazzani, Hicham El Bacha, Nadia Benzzoubeir**

*Clinical B, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Cytomegalovirus (CMV) infection has been reported as an exacerbating factor in inflammatory bowel disease (IBD). It is assumed that CMV infection in IBD is caused by reactivation due to the immunosuppressive therapy, but the role of CMV as a pathophysiological factor and prognostic marker in IBD is unclear. The aim of our study was to evaluate the clinicopathologic, endoscopic, and therapeutic features of CMV infection in IBD.

***Materials and Methods:*** In this retrospective study, 350 patients with active IBD (210 RCH and 140 MC) out of a total of 898 IBD, were collected during the period from January 2006 to January 2019. The inclusion criteria are: active IBD (colonoscopic assessment was made for the extent, collection of specimen and activity of IBD: using Mayo and CDAI), CMV inclusions on colon biopsy and immunohitochemistry, CMV serology as well as PCR on a blood sample were performed in patient entity when it was possible.

***Results:*** 20 cases of IBD with concomitant CMV infection were collected including 16 patients with ulcerativ colitis (UC) and 4 with Crohns disease (CD). The mean age was 40 years (range: 18 to 50 years), male predominance objectified with a sex ratio of 2 (12H/6F). The prevalence of CMV infection in our IBD population is estimated at 5.71%. 12 patients (61%) with histologically positive CMV had clinical signs (fever and lymphoadenopathy) and endoscopic signs of severity. These 61% were of interest only to UC with a MAYO score >8, and among 16 patients with UC associated with CMV: 10 cases were stero-resistant and 3 were under immunosuppressive therapy. PCR was positive in 5 patients, who went into remission after antiviral treatment.

***Conclusion:*** Many convergent studies show an association between CMV infection and steroid-resistant forms of UC, whereas in CD this association is rare. Rectal biopsy should always be performed in severe steroid-resistant or refractory colitis.

***Keywords:*** CMV infection, IBD, refratory colitis

---

***PP-444***

## *Clinical presentation and endoscopic findings in Turkish adult patients with eosinophilic esophagitis-a multicentered-retrospective study*

**Nurten Türkel Küçükmetin[1], Özdal Ersoy[1], Hakan Ümit Ünal[1], Suna Yapalı[1], Arzu Tiftikçi[1], Fatih Oğuz Önder[1], Aysun Bozbaş[1], Füsun Baba[2], Eser Vardareli[1], Murat Saruç[1], Süha Göksel[2], Nurdan Tozun[1]**

*[1]Department of Gastroenterology, Acıbadem Mehmet Ali Aydınlar University, İstanbul, Turkey*
*[2]Department of Pathology, Acıbadem Mehmet Ali Aydınlar University, İstanbul, Turkey*

***Background/Aims:*** The frequency of eosinophilic esophagitis is rising over the last decades. It is mostly diagnosed based symptoms, endoscopic findings and histopathological examination. This study aimed to define clinical and endoscopic characteristics of patients diagnosed with eosinophilic esophagitis based on recently recommended histopathological criteria.

***Materials and Methods:*** This retrospective study included 54 patients [mean age: 33,6 (16-61) years, 81.5% were males) who underwent upper GIS endoscopy and diagnosed with eosinophilic esophagitis based on latest histopathological criteria (≥15 eosinophils per high power field). Clinical, endoscopic and histopathological data of the patients were examined.

***Results:*** The most common presenting complaint was dysphagia (61.1%), followed by dyspepsia (24.0%), regurgitation (16.6%), chest pain (16.6%), epigastric pain (12.9%), food impaction (11.1%), and halitosis (3.7%). White papules and linear furrow were the most frequent finding on endoscopic examination (35.0%) followed by circular rings (24.0%), paleness (22.0%), normal endoscopic finding (20.0) and small caliber esophagus (11.0).

***Conclusion:*** Endoscopic examination and esophageal biopsy are the mainstays of diagnosis in eosinophilic esophagitis, while the frequency of findings suggestive of the condition as well as the definitions of endoscopic findings may vary considerably.

***Keywords:*** Eosinophilic esophagitis, endoscopic examination; histopathological examination; eosinophil count

---

***PP-445***

## *Overlap syndrome of autoimmune hepatitis (AIH) with primary biliary cirrhosis (PBC): An emerging diagnostic and therapeutic challenge*

**Hind Beggar, Ikram Errabih, Laaziza Ouazzani, Hicham El Bacha, Nadia Benzzoubeir**

*Clinical B, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Over the last 2 decades, theres has been increasing attention to a rare clinical subgroup of patients who appear to have a combination of two distinct hepatopathies: primary biliary cirrhosis (PBC) and autoimmune hepatitis (AIH), whose diagnosis is based on clinical, biological, immunological and histological criteria. In about 10% of cases, the elements of these two conditions are combined in the same patient thus determining an overlap syndrome (OS). The diagnosis of these borders is based on criteria developed by Chazouillères and al. The aim of our study is to recall the epidemiological and diagnostic particularities of OS, and highlight on the prognosis and the therapeutic strategy.

***Materials and Methods:*** In this retrospective study, 13 cases of OS were identified over a period of 14 years (January 2004-December 2018), according to the criteria of Chazouillères and al, by the simultaneous or consecutive presence of at least 2 of the 3 criteria of PBC: 1) alkaline phosphatase (ALP) ≥2N and/or gamma-glutamyl transpeptidase (GGT) ≥5N, 2) Antimithochondrial antibody(AMA) ≥1/80, 3) presence of a destructive cholangitis at the liver biopsy puncture (PBF); and 2 of the 3 criteria of AIH: 1) ALAT ≥5N, IgG ≥2N and/or anti-smooth muscle antibody ≥1/80, 3) presence of periportal and lobular inflammation to PBF. During the OS, the complete response to treatment was defined by the normalization of alanines transaminases, ALP and GGT; and partial response by decreasing more than 50% of these parameters.

***Results:*** 13 cases of OS were collected. The average age is 44 years (range: 37-72 years). Overall 92.3% of patients were female with a sex ratio (12F/1H) of 12. The main circumstance of discovery was jaundice in 60% of cases and pruritus in 30% of cases. Biologically cytolysis was found in all patients with an average rate of 5.3N, cholestasis in 100% of cases with an average GGT at 5.6N and PAL at 5.8N. Anti-mitochondrial antibodies were positive in 100% of cases, and anti-smooth muscle antibodies were positive in 78% of cases. An increase in IgG was noted in 69% of cases. Hepatic biopsy puncture was performed in 6 patients, concluded at a PBC. Our patients were put on a regimen combining ursodeoxycholic acid (UDCA) with immunosuppressive therapy (azathioprine and corticosteroids). The evolution was marked by the development of cirrhosis in 5 cases (30%) of which 2 are currently in the terminal stage, and one case died. No patients had a complete biochemical response, 2 had a partial response and 3 were non-responders after a mean follow-up of 28 months.

***Conclusion:*** Overlap syndrome (PBC-AIH) in hepatology is emerging as a diagnostic and therapeutic challenge, early identification is essential in providing appropriate therapy to potentially prevent long-term adverse outcomes in patients with overlap syndrome.The treatment is not codified, the triple therapy based on the combination of corticosteroids-azathioprine-UDCA seems the most appropriate in the first intention, and allows to obtain a complete answer in the major cases.

***Keywords:*** PBC, AIH, triple therapy

***PP-446***

## *The impact of serum mean platelet volume in chronic peptic ulcer disease*

**Cem Aygün[1], Nigar Rustemova[2], Aysun Bozbaş[1], Nesliar Eser Kutsal[1], Nurdan Tozun[1]**

*[1]Department of Gastroenterology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*
*[2]Department of Internal Medicine, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Peptic ulcer disease (PUD) represents defects in gastrointestinal mucosa that may extent through the muscularis mucosa into deeper layers of the gastric or intestinal wall. Usually it is chronic, benign and located in stomach or proximal duodenum. Symptoms of chronic PUD are not specific and therefore have limited predictive value in diagnosis. Patients with chronic PUD, especially elderly patients, may be asymptomatic or have only mild symptoms. Mean platelet volume (MPV) is accepted as a representative laboratory indicator of platelet function and activation. Over the past few decades, a considerable numbers of studies have investigated the associations between MPV with several diseases. In this study we aimed to evaluate the impact of MPV on endoscopically" diagnosed chronic PUD patients and compare this data with healthy individuals.

***Materials and Methods:*** This study retrospectively evaluated the hospital records of 120 patients with chronic PUD who underwent upper gastrointestinal endoscopic examination in our gastroenterology clinics. Exclusion criteria included previous surgery for peptic ulcer disease, esophageal ulcer, gastric cancer, severe systemic diseases such as diabetes mellitus, hypertension, cardiovascular diseases, liver and kidney diseases, myeloproliferative disorders, leukaemia and Bernard-Soulier Syndrome. A control group was formed including 120 healthy individuals who had compatible ages and sexes and were found to be in good health as a result of a check-up procedure. Demographic features and complete blood count with MPV were recorded for all participants. Age, leukocyte, hemoglobin, platelet count and MPV were compared between the two groups.

***Results:*** The data showed that mean platelet count was significantly higher in the PUD group compared with the control group (p=0.04). However, the mean MPV was significantly lower in the PUD group when compared with the control group (p<0.001). There were no significant differences in mean age, sex, hemoglobin and leukocyte counts between the two groups. According to the ROC curve analysis performed for the prediction of chronic PUD in the study, the best cut-off point for the MPV was 10.1 fl (sensitivity 68%, specificity 87.3%, area under curve [AUC]:0.8). There was no correlation between MPV with hemoglobin or leukocyte counts but there was a negative correlation between MPV and platelet counts (r=-0.2966, p=0.0024).

***Conclusion:*** Our study results revealed that mean platelet count is increased but MPV is decreased in chronic PUD patients as compared to controls. Complete blood count is a cheap and easily accessible test. Although MPV is a routine component of complete blood count, it is often overlooked. Interpretation of MPV levels in chronic PUD patients may be a useful marker in assessment of the disease and future folow-up. According to our results low MPV can be a unique and an important additional risk factor as well.

***Keywords:*** Mean platelet volume, platelets, peptic ulcer disease

---

***PP-447***

## *Hepatitis B virus (HBV) and hepatitis C virus (HCV) infections among men who have sex with men, Brazil*

**Ana Rita Motta-Castro[1], Ligia Kerr[2], Carl Kendall[3], Mark Drew Crosland Guimarães[4], Rosa Salani Mota[2], Ana Maria De Brito[5], Maria Amelia Veras[6], Ines Dourado[7], Lisangela Oliveira[8], Laio Magno[7], Raimunda Hermelinda Maia[2], Regina Célia Moreira[9]**

*[1]Universidade Federal Do Mato Grosso Do Sul, Campo Grande, Brazil*
*[2]Universidade Federal Do Ceará, Fortaleza, Brazil*
*[3]Tulane University, New Orleans, USA*

[4]*Universidade Federal De Minas Gerais, Belo Horizonte, Brazil*
[5]*Centro De Pesquisas Aggeu Magalhaes, Recife, Brazil*
[6]*Faculdade De Ciências Medicas Da Santa Casa De São Paulo, São Paulo, Brazil*
[7]*Universidade Federal Da Bahia, Salvador, Brazil*
[8]*Centro Universitário Autônomo Do Brasil, Curitiba, Brazil*
[9]*Instituto Adolfo Lutz, São Paulo, Brazil*

***Background/Aims:*** The aim of this study was to estimate hepatitis B virus (HBV) and hepatitis C virus (HCV) infections among MSM in Brazil.

***Materials and Methods:*** In 2016, a total of 4.176 MSM were recruited from 12 Brazilian cities using Respondent Driven Sampling (RDS) cross sectional study. Serological markers of HBV (HBsAg) and HCV (anti-HCV) infections were performed on 3.176 and 3.963 MSM blood samples, respectively using rapid tests (RT). Positive or indeterminate samples for HBsAg were tested with Real Time HBV assay (qPCR) for HBV DNA. If negative for HBV DNA, samples were tested by immunoassay (ECLIA) for HBsAg, anti-HBs and total anti-HBc. Negative samples for HBsAg and total anti-HBc were submitted to anti-HBs detection. Anti-HCV positive samples were submitted to a qPCR to amplify HCV genomic region (5'-UTR). RDS weighted prevalence rates with 95% confidence intervals (95%CI) were estimated for these infections.

***Results:*** Among 3.179 individuals, 30 (1.1%; 95%CI: 0.6–2.1) were positive for HBsAg by RT. Of these, 26 were confirmed by ECLIA. Global HBV prevalence rate was 11.0% (95%CI: 8.9–13.6). The immune response to HBV vaccine (anti-HBs alone) was present in 74.4% of the 1,034 MSM tested for this marker. Among HBsAg positive samples (n=30), 70.0% were HBV DNA positive. Out of 3,963 MSM samples that were screened for anti-HCV by RT, 24 (0.9%; 95% CI: 0.4%-1.8%) were anti-HCV positive. Of these, 16 were confirmed, resulting in a HCV exposure prevalence of 0.7% (95% CI: 0.3%-1.7%). The presence of HCV RNA was detected in 13/16 (81.2%) anti-HCV positive samples.

***Conclusion:*** Despite of high overall HBV prevalence, especially when compared to the general population, many MSM have serological evidence of HBV vaccination, low prevalence of active hepatitis B infection and low HCV exposure prevalence compared to that found among Brazilian general population. Considering that MSM are engage in high-risk sexual behavior, these findings highlight that preventives measures should be scaled up to close gaps in prevention of these infections.

***Keywords:*** HCV, HBV, MSM, RDS

---

***PP-448***

## *Cronkhite Canada syndrome: A Moroccan case*

**Hind Beggar, Maryeme Kadiri, Ikram Errabih, Laaziza Ouazzani, Nadia Benzzoubeir**

*Clinical B, Ibn Sina Hospital, Rabat, Morocco*

***Introduction:*** First described in 1955 by Cronkhite and Canada, this syndrome includes the association of non-hereditary digestive polyposis, skin hyperpigmentation, onychodystrophy and alopecia (1).It is a rare disease with about 500 cases that have been reported in the literature, that it is more likely to affect males in their fifties. CCS has a potential for cancer that affects 9 to 15% of cases reported in the literature (5,8). Despite various medical and surgical treatments, no optimal treatment is yet known. In this reported case, we describe the first case of CCS reported in Morocco with a literature review.

***Case:*** Mr. K.A. 33 years old, with no significant record of CCS in their family history, was hospitalized at the B Medical Clinic at Ibn Sina Hospital, in Rabat, in April 2017, for the treatment of chronic bloody diarrhea.The patient has been followed by a pediatrician, since his childhood for a failure to thrive, with a normal etiological assessment. In March 2006, at the age of 22, the patient was taken to the emergency room with severe colitis bleeding, requiring subtotal colectomy with ileoanal anastomosis. The anatomopathological examination of the surgical part showed, on the one hand, an aspect of acute ulcerative colitis

with the presence of cryptococcosis parasitic agents, and, on the other hand, 3 hamartomatous polyps from Peutz-Jeghers. The progress was good until January 2013, at this time the patient was operated on at the emergency room for graft occlusion on flanges, a hail resection with terminal ileo-rectal lateral anastomosis was performed, the same histological aspect was found, namely Peutz-Jeghers polyps and intestinal cryptococcosis. In April 2017, the patient was received by our department due to a series of bloody and mucus diarrhea (more than 9 stools per day). The clinical examination found the patient in bad general condition, pale, and dehydrated. Phanareal-cutaneo examination revealed alopecia and onychomycosis lesions. Biological examination revealed microcytic hypochrome anemia at 5.4g/dL, hypo albuminemia at 19 g/l, elevated CRP at 88.5 mg/l, hyponatremia at 117 mmol/l, hyperkalemia at 5.6 mmol/l. Thyroid tests, cortisol levels, as well as stool parasitology came back negative. Gastroduodenal fibroscopy was normal. The colonoscopy showed the presence of several hamartomatous polyps of variable size and shape, bleeding easily at the contact with the rectum and the ileo-rectal anastomosis. The histological study had shown inflammatory and hyperplasic polyps. With the presence of a combination of intestinal polyposis, onychomycosis, alopecia, alteration of the general condition of the patient, with endoscopic and anatomopathological data; the diagnosis of CCS was retained. The patient received nutritional support and treatments containing vitamins, combined with full-dose corticosteroid, antibiotics with anti-protozoals, pro-biotics and aminosalicyles. An improvement was noted. However, 7 days later the patient died in a severe sepsis.

***Conclusion:*** Cronkhite Canada Syndrome is a rare, unhealed disease without a family form, whose origin remains unclear, even if a possible autoimmune origin is mentioned. First described by Leonard Cronkhite and Wilma Canada in two patients (4). Since then, more than 500 cases have been reported worldwide with a predominance among the Asian population, more likely to affect males in their fifties, triggering factors such as stress and fatigue have also been identified. The pathogenesis of CCS is still unclear, however in published cases, it may be associated with systemic lupus erythematosus, vitiligo, rheumatoid arthritis and hypothyroidism, suggesting an autoimmune factor (1,8). Clinically, CCS is characterized by digestive and skin symptoms. It most often associates watery, hemorrhagic diarrhea, linked with abdominal pain, weight loss, anorexia, and asthenia. These disorders are secondary to malabsorption syndrome and exudative enteropathy, which are themselves secondary to changes in the digestive mucosa. Dermatological disorders are not specific to CCS, they are marked by order of frequency, onychodystrophy, alopecia, and hyperpigmentation. The etiology of these disorders seems to be deficient, and there is remission under protein and/or vitamin supplementation. In biology, deficiencies are most often found. It is classic to encounter anemia, hydroelectrolytic disorders, and hypoprotidemia linked with hypo albuminemia. Endoscopically, a diffuse digestive polyposis is found, characterized by juvenile, hamartomatous polyps affecting the entire digestive tract, except the oesophagus, and most often having an aspect of "strawberry" or "raspberry". The histological study shows an infiltration of inflammatory cells, as well as sub-mucosal edema in the lamina propria linked with cystic dilation of the mucous glands. The polyp-free mucosa is characterized by significant alteration of crypts and constant villositary atrophy. The main differential diagnoses are, in the first place, digestive polyposes such as family adenomatous polyposis or Peutz-Jeghers syndrome, juvenile polyposis, Cowdens disease. Treatment is not based on a standardized protocol. Indeed, at present, several treatments have been identified and used with various degrees of success. It is recognized that nutritional supplementation is a pillar of care, such as the corticosteroid treatment. The analysis of clinical-biological-endoscopic developments makes it possible to determine the effectiveness of treatments. Indeed, the use of corticosteroids seems to be the reason of the digestive disorders remission, both clinically and endoscopically. Skin disorders seem to be improved by nutritional protein and vitamin treatment, whether enteral or parenteral. The use of surgery and immunosuppressants seems to be reserved in case of failure of the above-mentioned treatments. Finally, other protocols were used, such as antibiotics and digestive anti-inflammatory drugs (sulfasalazine, salazosulfapyridine). The prognosis is poor with an estimated mortality rate of 55% at 5 years. The development of the syndrome is characterized by many complications such as digestive hemorrhages that can be cataclysmic, malnutrition, infections and cancers. The frequency of neoplasia is more frequent in patients with CCS compared to the general population, and is estimated at about 18%. The etiology of this complication is still being debated today. Some hypothesize an adenome-adenocarcinoma sequence from the polyp, others suggest the possibility of de-novo cancer, and others assume an infectious origin. In addition, it is important to provide regular endoscopic monitoring to remove any suspicious polyp and/or polyp larger than 1 cm. CCS is therefore a complex pathology, sometimes with diverse appearances, and whose diagnosis, which is not easy, requires clinical, biological, endoscopic and anatomopathological analysis. Delay in diagnosis is common. Nutritional support, antibiotics, corticosteroids, and surgery have all been used with varying degrees of success. Unfortunately, therapeutic trials were not possible due to the rarity of the syndrome.

***Keywords:*** Cronkhite Canada syndrome, chronic diarrhea, onychodystrophy, intestinal polyposis

***PP-449***

## *Faecal calprotectin in clinical assessment of inflammatory bowel disease*

**Vladimir Borzan[1], Vlasta Oršić Frič[1], Ines Šahinović[1], Biljana Borzan[2]**

*[1]Clinical Hospital Center Osijek, Osijek, Croatia*
*[2]Faculty Of Medicine, University J. J. Strossmayer of Osijek, Osijek, Croatia*

***Background/Aims:*** Faecal calprotectin (FC) is a useful biomarker of inflammation in inflammatory bowel diseases (IBD) with the advantage of being cheap and non-invasive. It has a role in distinguishing IBD from non-IBD diseases, but also in IBD patients' follow-up. Chemiluminiscent immunoassay (CLIA) is a method of quantitative determination of FC in stool sample with a shorter turn-around time. Our aim was to present diagnostic accuracy of a novel faecal calprotectin test used in our hospital in differentiating IBD and non-IBD patients.

***Materials and Methods:*** We collected FC results of all patients tested from the introduction of the new method in March 2018 until November 2018. FC was measured by chemiluminiscent immunoassay (QUANTA Flash Calprotectin) on the BIO-FLASH instrument (Inova Diagnostics, San Diego, CA, United States) in the Department of Clinical Laboratory Diagnostics of Clinical Hospital Centre Osijek, Croatia. We obtained patients' medical records from hospital's database. In the final analysis, we included only patients that had an ileocolonoscopy done a month before or after of FC measurement and were older than 18 years. Data were analysed using Mann-Whitney U test for independent samples and ROC curve analysis for measuring diagnostic accuracy. We used a cut-off value of 120 mcg/g for a positive result as assigned by the manufacturer.

***Results:*** Out of 977 patients with measured faecal calprotectin, we included 81 patients with IBD and 56 patients with non-IBD diagnosis. Patients with IBD had significantly higher levels of FC compared to non-IBD patients (170 vs. 38.5, $p<0.0001$). Considering disease activity in IBD patients, patients with endoscopically proven active disease had significantly higher FC levels compared to patients in endoscopic remission, both in Crohn's disease and ulcerative colitis (596 vs. 77, $p=0.0002$ and 427.5 vs. 115, $p=0.0143$, respectively). At a cut-off value of 120 mcg/g, we calculated sensitivity of 78.1% and specificity of 80.4% in differentiating active IBD from non-IBD patients.

***Conclusion:*** We showed that this new chemiluminiscent test could be used with a high sensitivity and specificity in distinguishing IBD from non-IBD diseases, although slightly lower in our patient population than stated by the manufacturer. A great advantage of this test is also a short turn-around time for results, which gives us opportunity to act fast when needed.

***Keywords:*** Feacal calprotectin, IBD

---

***PP-450***

## *Acute pancreatitis and cholangitis due to migrating surgical clips into common bile duct*

**Cem Aygün, Aysun Bozbaş, Nesliar Eser Kutsal, Nurdan Tozun**

*Department of Internal Medicine and Gastroenterology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*

Biliary tract related conditions are among the most common disorders that require hospitalization in gastroenterology units. While majority of patients with incidental gallbladder stones will not develop symptoms, approximately 15-25% might become symptomatic during follow-up. The presenting symptoms are highly variable and unlike gallbladder stones most patients with common bile duct stones develop symptoms. Surgical clip migration into common bile duct is a rare complication after cholecystectomy. It may lead to stone formation, obstruction, stricture, cholangitis and pancreatitis. Patients with acute cholangitis or pancreatitis due to surgical clip migration and common bile duct obstruction

who have signs of septic shock require urgent biliary decompression. A 81-year-old male patient was admitted to our emergency department with recurrent jaundice for 2 weeks. He had nausea and upper abdominal pain for 2 days with high-grade intermittant fever starting just before the day of admission. There was mild pruritis all over the body. He had laparoscopic cholecystectomy (LC) for acute calculous cholecystitis 3 months ago. In his history there was no any other systemic disease other than hypertension. On physical examination, there was yellowish pigmentation of the skin and sclerae due to suspected high bilirubin levels. He had a temperature of 38.50C with tachycardia (heart rate: 115/minute). Previous LC scares were seen on abdominal wall on inspection. There was marked tenderness of epigastric area and right upper quadrant region during palpation. Prompt laboratory analysis revealed the following results: Hemoglobin (Hb) level, 11 g/ dL (normal 13.5-17 g/dL); white blood cell (WBC) count, 15.6×103/μL (normal 4.1-10.6×103/μL); platelet (PLT) count, 153×103/μL (normal 159-388×103/μL); neutrophil count, 13.5×103/μL (1.9-7×103/μL), and C-reactive protein (CRP) level, 11.3 mg/dL (normal 0-0.5 mg/dL). Alanine aminotransferase (ALT) 276 U/L (normal up to 59), aspartate aminotransferase (AST) 169 U/L (normal up to 37), gamma glutamyl transpeptidase (GGT) level, 633 U/L (normal up to 55), and total bilirubin 6.4 mg/dL (normal up to 1.2). Serum amylase was 2250 U/L (normal up to 115) and serum lipase was 18108 U/L (normal up to 393). Magnetic resonance cholangiopancreatography (MRCP) showed dilated common bile duct with suspected calculi and sludge inside. An urgent endoscopic retrograde cholangiopancreatography (ERCP) was performed. Cholangiogram revealed dilated intra and extrahepatic biliary tree with distal suspected calculi or sludge. Sphincterotomy was done initially and then by using exraction balloon two surgical clips were removed from the common bile duct. Pain and fever promptly disappeared after the ERCP with progressive decrease in amilase, lipase and liver functions tests. Patient was discharged in good condition after 5 days of hospitalization. With this case we aimed to report that surgical clip migration into common bile duct can be seen as a leading cause of obstruction, cholangitis and pancreatitis. ERCP can be performed succesfully and safely in the treatment of the migrated surgical clips before clinical detoriation occurs.

***Keywords:*** Migrating surgical clips, acute pancreatitis, acute cholangitis

---

***PP-451***

## *Endoscopic approach to the management of patients with bleeding from gastroesophageal varicose veins or with the risk of the bleeding*

**Tarverdi Rzayev, Natavan Khidirova, Senem Memmedova, Nuru Bayramov, Eldar Aliyev**

*Azerbaijan Medical University, Baku, Azerbaijan*

***Background/Aims:*** Varicose bleeding make up 10% of all upper gastrointestinal bleedings. Their treatment is difficult, often we can observer the recurrence bleeding or death. The recurrence of bleeding may be observed during first 6 weeks, if endoscopic management did not applied. Gastric varicose veins (GV) are observed less than esophageal (EV) (20%) and its are more serious due to severe bleeding and complications rate. Endoscopic using of tissue glue such as cyanoacrylate is the good alternative to the less invasive therapeutic management methods. Endoscopic band ligation is the choice method for the treatment of patients with esophageal varicose bleeding. The choice of treatment tactic for the patients with Gaastroesophageal varicose (GOV 1 and GOV 2) bleeding, when and which vein should be treated first.

***Materials and Methods:*** 83 patients with upper gastrointestinal bleeding from gastroesophageal varicose (GOV) veins were treated by Glubran-2 injection and band ligation. The patients were divided into 3 groups: I group-42 patient bleeding EV and risk GV bleeding, II group-18 patient with the risk of EV bleeding and active GV bleeding and the III group is included 23 patient with the risk of EV and GV bleeding. The rate of complications, recurrence bleeding and the optimal time for sclerotherapy were studied at these patients.

***Results:*** The average age of patients 59.8+9.6. The ratio of male to female patients were 53/30. The medium duration of observation was 409.6=202.3. In the first group after band ligation the rate of repeated bleeding was much higher at patients with risk of GV bleeding 14-33.3%. At these patients the ligation contributed increasing of portal tension and it resulted in GV interruption and bleeding. At 5 patient in the 1 st group for the reason GV bleeding were performed GV obliteration. One patient were undergone to the TİPS, because it was impossible to control bleeding by endoscopic methods. In the second group at 8 patients were performed obliteration of GV and ligation of EV at the same time. At 10 patients at the first step we have done GV obliteration, with following EV ligation after 3-4 weeks. At the patients in the third group were performed GV obliteration and EV ligation during the same procedure. In all groups were observed such complications, like pneumonia, postligation ulcers, bacterial peritonitis, ascites, encephalopathy.

***Conclusion:*** During the bleeding at the first step should be endoscopically impacted to the source of bleeding. At patients with the gastric veins bleeding and with the risk of esophageal veins bleeding at the same time different endoscopic management types should be performed simultaneously.

***Keywords***: Portal hypertension, gastroesophageal varicose veins, cyanoacrylate, band ligation

---

***PP-452***

## *Role of ERCP in choledocholithiasis*

Namig Novruzov

*Department of General Surgery, Central Customs Hospital, Baku, Azerbaijan*

***Background/Aims:*** The purpose of this study was to share our experience of ERCP in the surgery department.

***Materials and Methods:*** ERCP procedures performed between January 2015 and January 2019 at the Surgical Department of Central Customs Hospital were evaluated retrospectively. Patients characteristics, procedure outcome, conversion rate and complications were reviewed.

***Results:*** A total of 148 ERCP procedures were performed in 144 patients. 63 man (44%) and 81 women (56%) had a mean age of 45 (26-84) years. The cannulation was not achieved in 17 (11%) of the procedures due to different reasons. Total cannulation success was 89%. 4 of the patients underwent 2 attempts of ERCP and cannulation was achieved by precutting in 14 (11%) patients. In 14 (11%) of the procedures amylase level elevated more than 3 times of upper limit. In 3 (2%) cases clinical pancreatitis required conservative treatment. In 1 patient bleeding, in 1 patient lithotriptor compression and in 1 case retroperitoneal perforation were observed which were required surgical intervention. In 2 cases laparoscopic choledoch exploration was done due to residual stones.The morbidity rate of ERCP procedures was 15.3% and there was not mortality. 90 patients with gallbladder stones underwent laparoscopic cholecystectomy 3-5 days after ERCP. Stone extraction was performed in 27 out of 30 patients with cholecystectomized and choledochal stones, and 3 patients underwent plastic stents. 7 patients underwent ERCP due to choledochal stenosis and 4 patients due to bile fistula. The morbidity rate of ERCP procedures was 15.3% and there was not mortality. 90 patients with gallbladder stones underwent laparoscopic cholecystectomy 3-5 days after ERCP. Stone extraction was performed in 27 out of 30 patients with cholecystectomized and choledochal stones, and 3 patients underwent plastic stents. 7 patients underwent ERCP due to choledochal stenosis and 4 patients due to bile fistula.

***Conclusion:*** Since ERCP allows minimally invasive procedures, such as laparoscopic fibrocholedocoscopy and laparoscopic common bile duct exploration, its use in hepatopancreatobiliar surgery clinics is increasing.

***Keywords:*** ERCP, common bile duct exploration

***PP-453***

## *Assessment of health-related quality of life in patients with inflammatory bowel disease or chronic liver disease hospitalized in gastroenterology department*

**Fatma Ben Farhat, Meriem Sabbah, Dorra Trad, Asma Ouaksaa**

*Habib Thameur Hospital, Tunis, Tunisia*

***Background/Aims:*** The Heath related quality of life (HRQoL) is a subjective, multidimensional concept addressing various aspects of the individuals' life such as age, gender, socioeconomic status, type of illness, and treatment that should be considered during patient evaluation. The aim of our study was to assess the quality of life of patients with inflammatory bowel disease or chronic liver disease hospitalized in gastroenterology department.

***Materials and Methods:*** A cross-sectional study among 61 patients hospitalized was performed. To determine the health-related quality of live in patients, we used the SF-36 questionnaire and the HAD score.

***Results:***

| | Inflammatory Bowl Disease (n=32) | Chronic Liver Disease (n=29) |
|---|---|---|
| Mean age | 41.09 | 61.4 |
| Sex Ratio | 1 | 14/15 |
| Comorbidities | 10 (31%) | 20 (68.9%) |
| Daily Hospital | 10 (31%) | 5 (17.24%) |
| Long term unit | 18 (56.25%) | 18 (62.06%) |
| Intensive care | 4 (12.5%) | 6 (20.68%) |
| Anxiety | 21 (65%) | 16 (55%) |
| Depression | 11 (34.3%) | 7 (24.13%) |
| Physical score <50 | 11 (34.3%) | 15 (51.72%) |
| Mental score < 50 | 12 (37.5%) | 10 (34.4%) |
| Lower Physical/mental score | 5/13.3 | 18.75/24.5 |

***Conclusion:*** A significant number of patients hospitalized in gastroenterology department have a bad health-related quality of life especially those with inflammatory bowel disease who suffer from anxiety and depression regardless the age and gender while patient with cirrhosis have especially a bad Physical Score. These patients require, apart from the medical management, a psychological support and if necessary, an opinion of experts should be requested.

***Keywords:*** Quality of life, Chronic liver disease, inflammatory bowel disease, HAD score, SF36

***PP-454***

## *The efficacy of cholinolytic therapy of hypercontractile esophagus*

**Elen Valitova, Olga Berezina, Yulia Embutnieks, Dmitry Bordin**

*Moscow Clinical Scientific Center A.S. Loginov, Moscow, Russia*

***Background/Aims:*** Jackhammer esophagus is a primary motility disorder, which is diagnosed by high resolution manometry and characterized by excessive contractions of esophagus. The aim of our study was to evaluate the frequency of Jackhammer esophagus and efficacy of therapy.

***Materials and Methods:*** 132 consecutive patients, who reffered to the laboratory of functional diagnostic of gastric and esophagus disorders of Moscow Clinical Scientific Centre from January 2018 to May 2019 were involved in this study. All patients underwent upper endoscopy, high resolution manometry after 7 days. High resolution manometry was performed on water perfusing system by MMS products. Jackhammer Esophagus was established, when at least one hypercontractile contraction with DCI >8000 mmHg-s-cm and normal contractile propagation and normal contractile latency are presented.

***Results:*** Jackhammer esophagus was evaluated in 4 patients among all 132 subjects, which was 3%. All of them were females from 36 to 65 years old. Three of them suffered from noncardiac chest pain, two patients parodoxal dysphagia (i.e. presence of liquid dysphagia within absence of solid dysphagia). One patient with dysphagia complaint of globus. Upper endoscopy didn't reveal any mucosal lesions. All patients took cholinolytics (hyoscine butylbromide) 10 mg 3 times a day 1 month. Two patients had positive effect: the chest pain was relieved. One patient marked the reduction of globus sensation. However there was no effect in patient with dysphagia.

***Conclusion:*** The prevalence of Jackhammer esophagus in our Centre doesn't differ from other investigations. The patient with hypercontractile esophagus with chest pain are more likely to reveal the pain after cholinolytics.

***Keywords:*** Jackhammer esophagus

---

***PP-455***

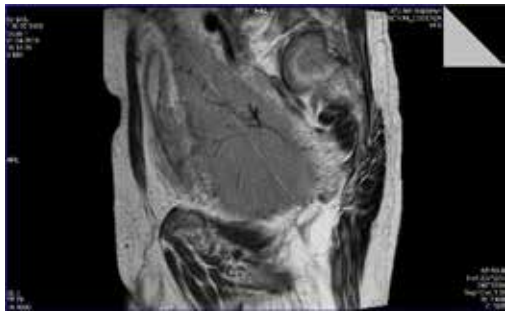
## *Mucosa-associated lymphoid tissue (MALT) lymphoma of the rectum presenting as a large pelvic mass: A case report*

**Irena Eftimovska Rogach, Biljana Prgova Veljanova, Jusuf Vejseli, Ljupcho Dameski**

*City General Hospital 8th September, Skopje, Macedonia*

Mucosa-associated lymphoid tissue (MALT) lymphoma, is classified as an extranodal marginal zone B cell lymphoma of MALT type, accounting for 5% of all NHL. Colonic MALT lymphoma with rectal involvement is extremely rare. We describe a case of an immuno-comepetent 60-year-old man admitted to our department in April 2019, had suffered from diarrhea stools for a tree months, weight loss, fatigue, subfebrile temperature, amaemia and hypoalbuminemia. No personal history of previous diseases. Ultrasonography of abdomen and pelvis and MRI of pelvis with post-contrast series showed well demarcated massive tumor mass (15 cmx10 cm) in the pelvis involving the rectal wall. Colonoscopic examination presented circumferential extensive infiltrative form with erosions in rectum without any normal mucosa in-between, length of 20 cm, the rest of the colon was clear. Histological and immunohystochemical evaluation showed positive staining for C-20, C-79 (strongly positive), CD-3 positive, Bcl-2 diffuse positive, 40% of the tumor cells were positive for Ki-67 and Bcl-6 negative, supporting a diagnosis of low grade MALT lymphoma – centoblastic/centrocytic type. H.pylori tests were all negative. Staging evaluation Positron Emission Tomography /Computer Tomography with radiotracer 2-deoxy-2-[fluorine-18] fluoro-D-glucose of total body was done, demonstrated intrapelvic metabolic active tumor mass arising of rectum dimension in length 15 cm, and retroperitoneal lymph nodes and along arteria mesenterica inferior, no other positive findings. Started treatment of monotherapy with rituximab (treatment ongoig), followed by reduction of tumor mass, and improvement of patient's condition. The incidence of primary colorectal lymphoma is rare (0.2-0.6%) of large bowel malignancy, rectum is an uncommon site. It remains still unclear, whether rectal MALT lymphoma is related to H. pylori infection or not. Optimal treatment of rectal MALT lymphoma is not well defined. Optionally –surgery, chemotherapy and radiotherapy. The rarity of the disease renders clinical trials very difficult, and the optimal treatment remains uncertain.

***Keywords:*** Tumor pevic mass, rectum, MALT lymphoma



***PP-456***

## *Hereditary angioedema: An unusual cause of vomiting: A case report*

**Sara Ghani, Nadia Benzzoubeir, Tarik Gharbi, Laaziza Ouazzani, Farida Souidine, Ikram Errabih**

*Department of Hepato-gastroenterology and Proctology, Ibn Sina University Hospital, Rabat, Morocco*

***Introduction:*** The first clinical description of angioedema was made by Von Quincke (German physician) in 1882, and the term hereditary angioneurotic edemawas coined in 1888 by Sir William Osler. Hereditary angioedema (HAE) is an autosomal dominant disease, resulting from a heterozygous deficiency of C1-inhibitor, and patients with HAE have intermittent cutaneous or mucosal edema, a consequence of poorly controlled local production of bradykinin. These oedemas usually evolve in a few hours and persist for a few days.

***Case:*** A 39-year-old patient, followed in endocrinology since the age of 20 for hypogonadotropic hypogonadism treated by Androtardyl: 1 injection / 3 weeks, consults for recurrent abdominal pain and chronic vomiting (the patient had three episodes of vomiting monthly), with episodes of edema of the face and hands. This symptomatology began in childhood. His father died of laryngeal edema, two sisters and one brother also have the same symptomatology. Digestive explorations are strictly normal; including many upper endoscopy and abdominal ultrasound and CT scan, the complement C4 compound was however collapsed (0.03g / dL-Nl 0.15 to 0.57) as well as the concentration of C1-inhibitor (C1-INH) measured by a Two-fold functional test is less than 10% (Nl>50%). The diagnosis of hereditary angioedema type I, characterized by a genetic deficiency in C1-inhibitor causing the excessive generation of bradykinin is retained. A substitution treatment with tranexamic acid (anti-fibrinolytic) at a dose of 1 to 1.5g/day was started, with resolution of symptoms.

***Conclusion:*** AOB remains a rare disease. The prevalence of hereditary AEB per C1inh deficit is estimated to be between 1/10 000 and 1/50 000 without pre-ethnic dominance (1). Angioedema is related to the excessive release of bradykinin. ıt was found that the abdominal involvement is most often present, associated with vomiting. The diagnosis retained on lower concentration of C1 inhibitor. In case of severe crisis the treatment is based on the administration of icatibant (Firazyr, 30 mg subcutaneously) or C1Inh concentrate (Bérinert, 20 U/kg IVL), while contacting its local or national referent CREAK (2). HAE is a rare disease that must be known and evoked in front of unexplained vomiting and chronic abdominal pain with a face edema, because of its potential severity and the effective therapies available. Although their clinical presentation is generally common to all types of AE, HAE have some digestive particularities not to be ignored, which should lead to the dosage of the inhibitor in order to establish adequate management. Currently there are several national and international reference centers, allowing a network in all territories to facilitate the diagnosis and treatment.

***Keywords:*** Hereditary angioedema, chronic vomitin, C1 inhibitor, prophylaxis

***References***

*1. Cicardi M, Zingale L, Zanichelli A, Pappalardo E, Cicardi B. C1 inhibitor: molecular and clinical aspects. Springer Semin Immunopathol 2005; 27: 286-98.*

*2. Longhurst H, Cicardi M. Hereditary angioe-dema. Lancet 2012; 379: 474-81.*

***PP-457***

## *Levofloxacin induced heaptotoxicity in patient with autoimmune hepatitis*

**Dalia Allam, Hala Abuelhassan**

*National Centre for Gastroentrology and Hepatology Disease, Ibn Sina Hospital, Rabat, Morocco*

Drug related hepatotoxicity is consider one of the major cause of acute liver faiulre, hepatic injury might range from mild liver damage that appeared in form mildly elevated transaminases to severly fulminant hepatic failure. This 27 year old female, who is a known case of autoimmune hepatitis (AIH) on predinslone and azathioprine, diagnosed with pulomonary tuberculosis for which non hepatotoxic drugs were started in form of ethambutol. Streptomycin and levofloxacin. Two weeks later she was having elevated transaminases her ALT >50ULN, liver biopsy WSA done for her which showed severe hepatic necrosis with drug induced liver injry as underlying cause. Thus levofloxacin was discontune and her liver enzymes were gradually improved. This case is important in light of levofloxacilin induced liver injury is uncommon in literature.

***Keywords:*** Levofloxacilin induced hepatoxcicty, AIH, pulomonary tuberculosis

---

***PP-458***

## *Walled off necrosis treatment combining placement of lumen-apposing metal stent and endoscopic retrograde cholangiopancreatography*

**Aleksandar Čubranić[1], Vladimir Borzan[2], Vlasta Oršić Frič[2], Biljana Borzan[3]**

*[1]Clinical Hospital Center Rijeka, Rijeka, Croatia*
*[2]Clinical Hospital Center Osijek, Osijek, Croatia*
*[3]Faculty Of Medicine, University J. J. Strossmayer Of Osijek, Osijek, Croatia*

This is a case of seventy-four year old male patient who was admitted to the Department of Gastroenterology and Hepatology of Clinical Hospital Center Osijek with clinical and laboratory signs of moderately severe acute pancreatitis. Two days from admission, abdominal contrast enhanced computed tomography (CT) scan showed hypoenhanced zones in uncinate process and body of pancreas with blurred fat tissue surrounding pancreas and small amounts of ascites, suggesting development of necrotizing pancreatitis. During further diagnostic work up, magnetic retrograde cholangiopancreatography (MRCP) was done which showed walled off necrosis (WON) in body of pancreas, 71×40 mm in size. Patient was treated with standard supporting measures for moderately severe acute pancreatitis, and was released from hospital upon improvement of clinical and laboratory features. Six weeks from beginning of symptoms, patient was admitted again for placement of lumen-apposing self-expandable metal stent (LAMS) guided by endoscopic ultrasound (EUS) for treatment of walled off necrosis in body of pancreas. Necresectomy was done on several occasions through the LAMS, with complete resolution of WON cavity. Four weeks after LAMS placement, endoscopic retrograde cholangiopancreatography (ERCP) was done and plastic stent was placed in pancreatic duct (3F, 7 cm) in order to restore function of pancreatic duct. During ERCP, biliary tract was shown normal, and spfincterotomy was done due to papillitis. After ERCP, LAMS was removed. Control CT scan, done 8 weeks after LAMS placement, showed no focal lesions of pancreas, and patient had complete resolution of symptoms. Pancreatic stent was removed 7 months after its placement. This case presents a successful treatment of large walled off necrosis, first by WON drainage with EUS-guided LAMS placement, followed by ERCP guided restoration of pancreatic duct drainage with plastic stent.

***Keywords:*** Walled off necrosis, LAMS, ERCP

***PP-459***

## *The use of infliximab in the treatment of immune related side effects: Case presentation*

**Arzu Tiftikçi[1], Bahattin Çiçek[1], Sibel Erdamar Çetin[2], Nurdan Tözün[1]**

*[1]Department of Gastroenterology, Acıbadem University School of Medicine, İstanbul, Turkey*
*[2]Department of Pathology, Acıbadem University School of Medicine, İstanbul, Turkey*

Immune control check-point inhibition with the anti-PD-1 and anti-CTLA-4 antibodies survival has been improved in many cancer types. Augmented immune response causes many side effects like diarrhea, colitis, hepatitis, skin toxicities, and some endocrinopathies. Treatment regimens are formed according to developed side effects. We would like to present colitis case immune related side effects due to pembrolizumab. When there was no response to steroid treatment, we performed a single dose of infliximab infusion. A 66 years-old male patient who had been operated due to lung cancer and had taken various chemotherapies, he relapsed and has been using pembrolizumab for the last three months. He was complaining from diarrhea started after the fifth dose of immunotherapy and he was first treated with ciprofloxacin and metranidazole for the last two weeks. In lab evaluation there was no leukocyte in stool microscopy and no growth in the culture. Clostridium difficile toxins were negative. We started parenteral metilprednizolone as 1mg/kg dose for 2 weeks. However plenty of watery diarrhea was still present 7-10 times a day. Pembrolizumab was stopped considering stage three immune colitis. In performed USG, thickness was detected in colonic wall. Colonoscopy was performed four days after the last dose of pembrolizumab. The rectum was the most severely effected part and also the entire colon mucosa was inflamed, edematous and submucousal venous plexus was disappeared. In hystopathological examination of taken colon biopsies, severe active transmucosal colitis was detected. There were widespread patchy losses, widespread crypt abscesses, epithelial flattening in crypts showing abscess formation, significant mucin loss, eosinophilic appearance with necrosis and apoptosis in some, cystic dilatation in some crypts and cell debris in lumens. It was thought that the immun-check point inhibitor treatment indicated in the patients history might have caused this condition. Chest x-ray and Quantiferon were checked. Infliximab (5 mg/kg) was applied without prophylaxis for tuberculosis. A clinic response was obtained in 24-hour. It was watery, non-shaped in first days, stool was shaped in 2 weeks. He took methylprednozolone for a while, one month after infliximab performing, methylprednisolone was stopped and the patient did not complain of diarrhea again. Immun-checkpoint inhibitor was not performed again. Brain metastasis developed in the patient. Five months after İnfliximab infusion, the patient died. Prevelance of immune related Colitis cases will be increased as usage of immune checkpoint inhibitors is used frequently. In immune related colitis cases not responding to steroids, even a single dose of infliximab can be very effective.

***Keywords:*** Immune related colitis, steroid, infliximab

---

***PP-460***

## *Multidetector computed tomography accuracy in preoperatively staging in gastric cancer a single center study*

**Fatjona Kraja, Adrian Hoti, Erald Karaulli, Myzafer Kaci, Orges Spahiu, Bledar Kraja**

*University Hospital Center "mother Teresa", Tirana, Albania*

***Background/Aims:*** Multiple studies on Multidetector Computed Tomography (MDCT) accuracy in preoperatively gastric cancer showed controversial results. Our aim was to evaluate the role of MDCT in the preoperative staging according the TNM and to compare with the post-surgery histopathology findings in patients with gastric adenocarcinoma.

***Materials and Methods:*** A single center data of 70 consecutive patients with confirmed gastric cancer by endoscopy biopsy with no neoadjuvant chemotherapy who underwent preoperatively MDCT and surgery were retrospectively analysed. The invasion depth, location, presence of lymph nodes, organ invasion and histopathology reports were recorded. The results were

expressed as sensitivity, specificity and overall accuracy. The statistical analysis was made through SPSS version 20.0 (SPSS, Chicago, IL).

***Results:*** The mean age of patients was 51.8±6.1 years (range 28-82 years). The male to female ratio was 2.5:1. MDCT correctly identified the localization of the mass in 94% of the patients. In 24% the mass was located in cardio-oesophageal, in 19% in corpus and in 57% in antro-pyloric region. The MDCT accuracy for the T stage was 72.7% in T2, 93.7% in T3 and 72.2% in T4. According to the lymph node involvement, the MDCT accuracy varied from 44.4% in N0, 55% in N2/N3 and up to 82.4% in N1 disease. The evaluation of metastatic involvement showed an accuracy of 88%. Over staged and under staged was 24% and 27%, respectively.

***Conclusion:*** MDCT demonstrated clinically relevant accuracy in the preoperatively gastric cancer staging regards to T stage, tumour localization and metastatic involvement.

***Keywords:*** MDCT, gastric cancer, accuracy

---

***PP-461***

## *Colorectal cancer and cigarette smoking in Albania*

**Marsela Sina, Skerdi Prifti, Adea Kocollari, Dorina Osmanaj**

*Clinic of Gastrohepatology, Center Mother Teresa University Hospital, Tirana, Albania*

***Background/Aims:*** Colorectal cancer (CRC) is the fourth cause of cancer-related death worldwide. The aim of our study was to evaluate smoking habits in Albanian patients with colorectal cancer.

***Materials and Methods:*** This was a prospective, case-control study, conducted at the University Clinic of Gastrohepatology, University Hospital Center Mother Teresa in Tirana, Albania from January 2011-September 2016. A detailed questionnaire about smoking habits was filled for every CRC patient and healthy individual in the control group. Multivariable analysis was used to determine associations between patient characteristics and different characteristics of smoking. Statistical analysis was made with Chi-square (p-value, significance level: 0.05).

***Results:*** 262 patients with CRC (56.2% M: 43.8% F), and 400 healthy individuals (56.1% M: 43.9% F) were enrolled in this study. The mean age at diagnosis was 62.7±10.1 for CRC group and 51.2±15.8 years for controls. There was a statistically significant difference of the percentage of never smokers (63% *vs* 64.5% respectively) and former smokers (21.8% *vs* 11.3%), between CRC group of patients and controls (p<0.001). There was an evident difference between CRC and controls regarding the average number of cigarettes per day (6.86±11.625 and 6.66±10.737, p=0.827), and the number of years of smoking (9.47±13.673 *vs* 6.79±12.259), even with no statistically significance (p=0.105). The number of years of smoking was higher in CRC group of male patients (16.05±14.716 *vs* 11.70±14.701, p=0.002), while there was no difference among women in both groups.

***Conclusion:*** We found cigarette smoking more frequently in our CRC patients than in general population. The number of cigarettes per day seemed to play an important role in CRC, even if not fully supported statistically. Long term smoking was also important, particularly in male CRC patients.

***Keywords:*** Colorectal cancer, smoking habits, Albanian patients

---

***PP-462***

## *Contribution of anorectal manometry air charged catheters in children*

**Maryeme Kadiri, Serraj Ilham, Salihoun Mouna, Kabbaj Nawal**

*Department of Gastroenterology, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Anorectal manometry is an examination that analyzes the two main functions of the anorectal region, continence and defecation. This test is useful in the exploration of certain entities: Terminal constipation, faecal incontinence. ARM becomes an increasingly used test in children at any age. The objective of this study was to determine the indications of the ARM and to evaluate the interest of this new technique.

***Materials and Methods:*** A retrospective study was conducted from February 2017 to July 2019 involving 101 children who performed ARM air charged catheters in our training. We recorded their clinical data and their manometric results

***Results:*** Males dominate our series with 70 cases (69; 3%) against 31 female cases (30.6%) with a sex ratio of 2.2. The average age was 9 years (2 months-17 years). 60 patients (59.4%) complained of encopresis, 31 children (30.6%) of constipation, and 10 children (9.9%) had both of them. Among the 60 children who had an encopresis, ARM showed: isolated abdominopelvic asynchrony in 33 cases (55%), poor anal contraction isolated in 11 cases (19%) and the 2 associated in 16 patients (26%) in 31 patients with constipation, the ARM found: 21 cases (67.7%) of abdominopelvic asynchrony, 9 cases (29%) of megarectum and one case of Hirshsprungs disease (3.3%).

***Conclusion:*** The ARM air charged catheters remains the "gold standard" in the exploration of terminal constipation and encopresis in children. It helps to establish a faster and more accurate diagnosis than the standard ARM, and to orientate an adequate therapeutic management such as Biofeedback rehabilitation.

***Keywords:*** Anorectal manometry-children

---

***PP-463***

## *Comparison of the manual and automatic analysis of the 24 hour multichannel intraesophageal ph-impedance monitorization before and after proton pump inhibitor treatment in patients with gastroesophageal reflux disease*

**Ozan Fatih Sarıkaya[1], Yusuf Serdar Sakin[2], Serhat Bor[3]**

*[1]Clinic of Internal Medicine, Manisa Merkezefendi State Hospital, Manisa, Turkey*
*[2]Department of Gastroenterology, Gülhane Training and Research Hospital, Ankara, Turkey*
*[3]Department of Gastroenterology, Ege Reflux Study Group, Ege University School of Medicine, Izmir, Turkey*

***Background/Aims:*** 24 hour multichannel intraesophageal ambulatory impedance-pH meter (MII-pH) is an important diagnostic tool for diagnosis of gastroesophageal reflux disease (GERD). Many researchers analyse MII-pH test with automatic analysis as manual analysis takes a long time. In this study, we aimed to compare automatic and manual MII-pH analysis of the same patients with GERD, before and during Proton Pump Inhibitor (PPI) treatment, to predict the need for manual analysis in clinical practice.

***Materials and Methods:*** The data of patients with the diagnosis of GERD between 2005 and March 2018, who were performed MII-pH analysis before (off) and during (on) PPI use were included in the study. The data were evaluated manually by using MMS-Laborie version 9.3 program, and were compared with the automatic analysis data. In this study, the comparison of manual and automatic analyses in on-off PPI use were examined by using various parameters, and Blant Altman graphs were used.

***Results:*** The correlation between PPI treatment according to manual and automatic analyses were evaluated and Intraclass Correlation Coefficient (ICC) was used. Reflux counts, acid-weak acid-nonacid reflux counts, mixed-liquid reflux counts, bolus clearing times, reflux counts at 15 cm above lower esophageal sphincter were evaluated separately. We found that there was a good correlation between all reflux counts and acid reflux counts in both "on" and "off" PPI patients. In patients who are not under treatment, automated analyses showed significantly higher rates of weak acid

reflux and compliance is impaired between automated and manual analyses. The compliance of manual and automated analyses were improved in patients with relatively low reflux rates. The higher the number, the greater the differences, which can lead to misdiagnosis.

***Conclusion:*** Automatically performed MII-pH analysis should be manually analysed in patients with weak acid reflux dominant reflux, and patients with a relatively high reflux rates, regardless of symptoms. In this way, it may be possible to prevent misdiagnosis in the analyses. Automated analysis should be used safely in patients with pathologic acid refluxes regardless of PPI use.

***Keywords:*** Ambulatory intraesophageal multichannel impedance-ph meter, Manual analyses, Gastroesophageal reflux

---

***PP-464***

## *Pancreatitis in inflammatory bowel disease: Case series of 4 patients in a university hospital*

**Cristian Camilo Páez Cancelado[1], Rafael García Duperly[1], Jong Hyuk Park[2], Adriana Margarita María Rey Rubiano[1], Rocío Del Pilar López Panqueva[1], Belén Elvira Mendoza De Molano[1]**

*[1]Fundación Santa Fe de Bogotá, Colombia, USA*
*[2]Universidad de Los Andes, Colombia, USA*

***Introduction***: Inflammatory Bowel Disease (IBD), which includes Ulcerative Colitis (UC) and Crohns Disease (CD), is a systemic disorder than can compromise various organs. The extraintestinal manifestations (EIM) of IBD include a group of heterogeneous symptoms that affect in descending order of prevalence the: musculoskeletal, cutaneous, ocular and hepatobiliary systems. Despite having a low prevalence, pancreatitis associated to IBD has been increasing in incidence. Worldwide it has been reported that IBD increases the risk of biliary calculi formation, production of pancreatic antibodies, morphological alterations and even of directly damaging the pancreas through inflammation. Despite there not being case reports in Colombia of IBD associated pancreatitis, it is important to know that it still can affect patients in Colombia. Our aim is to present the epidemiological characteristics of the clinical manifestations and outcomes of 4 cases attended at our University Hospital of Fundación Santa Fe de Bogotá (UH-FSFB), along with a literature revision of IBD associated pancreatitis.

***Case 1:*** 53 year old made with previous diagnosis of CD attended the emergency department (ED) due to an intense lumbar pain associated with shivers. Urinary lithiasis, considered as a primary possible diagnosis, was discarded. Patient referred to be receiving medical treatment for his IBD with oral mesalazine and azathioprine, this last drug started a week ago. The values of amylase and lipase were found to be elevated (see Table 1); the biliary tract ecography was reported as normal and an abdominal computerized tomography (CT) scan with contrast showed multiple segmental thickenings of the colon including ileum, pancreas thickening and alterations in peripancreatic adipose tissue. Patient was further diagnosed with a possible azathioprine induced severe acute pancreatitis (AP) and active CD. He is consequently transferred to the intensive care unit (ICU) in which after discontinuing azathioprine he receives fluid replacement therapy, parenteral nutrition and vedolizumab. Later on patient refers gastrointestinal symptom control, adequate pain control and oral tolerance with normal diet. Patient is discharged with vedolizumab as his biological therapy treatment.

***Case 2:*** 40 year old female with previous diagnosis of UC attended the ED due to 2 weeks of multiple episodes of bloody diarrhea and generalized abdominal pain. She referred to be taking since 1 month ago oral mesalazine, intrarectal budesonide and adalimumab. Upon entry she presents normal vital signs. Laboratory exams reported: negative for *Clostridium difficile* C-reactive protein, normal liver function test, normal ferrokinetic test, and a positive coprological test for *Entamoeba histolytica* cysts. Patient was hospitalized with diagnosis of parasite-associated infectious colitis. Patient receives as medical treatment ciprofloxacin, nitazoxanide, rectal and oral mesalazine and dose-adjusted adalimumab because she had previously received a dosage that was not in optimal therapeutic ranges. 48 hours later, patient presented postprandial intense epigastralgia. Amylase and lipase lab reported were requested, which later on were reported as normal (see Table 1). With respect to other

lab reports, the patient presented normal transaminases, bilirubin values and abdominal echography. A magnetic resonance imaging (MRI) of the abdomen was later on requested, which showed a morphologically normal pancreas and a thickening of the left colon. No other alteration was reported in the MRI. The patient was diagnosed with idiopathic AP possibly due to the inflammatory burden associated with the active UC without sufficient criteria to be transferred into the ICU. Supportive management for the pancreatitis was established until oral tolerance of normal diet was achieved. Patient was discharged with pharmacological treatment for his IBD. Remission of his clinical presentation was achieved.

***Case 3:*** 68 year old female with previous diagnosis of UC and history of total proctocolectomy with ileoanal pouch anastomosis and severe chronic pouchitis, sclerosing cholangitis and chronic abdominal pain. During the clinical follow up in external consultation, an abdominal MRI and endoscopic ultrasonography (EUS) of the biliary tract was requested. The exams report chronic pancreatitis based on Rosemon criteria. As a result, autoimmune pancreatitis is proposed as a possible differential diagnosis. Pancreatic biopsies were further on requested in order to quantify 2 sets of IgG4, of which both were reported as normal. Therapeutic testing with 15 mg daily oral prednisolone during 2 months without a clinical response. Additionally, the patient presented with a negative Sudan test and a normal elastase test. 3 follow up echo-endosonographies, which were realized annually, showed the same echographic findings previously mentioned. In order to control her severe pouchitis the patient was further on treated with biological therapy, metronidazol, and ciprofloxacin. In addition, pancreatic enzymes were prescribed for optimal dosage. Strict vigilance with abdominal MRI and echo-endosonography was continued.

***Case 4:*** 17 year old male with history of AP of possibly biliary origin done 2 years ago attends the ED due to vomit, diarrhea and abdominal pain. Patient refers to be receiving treatment with mesalazine and cyclic steroid therapy for his indeterminate IBD. Treatment is initiated with metronidazole, mesalazine and pulse corticosteroid. Afterwards, a colonoscopy with biopsies was requested. The colonoscopy report showed extensive active inflammation of the colon. Consequently, the patient is diagnosed with ulcerative pancolitis and treatment with 150 milligrams/day of azathioprine, 4 grams/day of mesalazine and biological therapy is established. 24 hours later, the patient presented a high intensity epigastralgia. Under the suspicion of pancreatitis, pancreatic enzymes were requested. Further on, lab results reported elevated pancreatic enzymes and normal liver profile (Table 1). An echoendoscopy was then solicited. Due to the extensive duodenitis, however, the echoendoscopy procedure was not able to be done completely. Thus, only duodenal biopsies were obtained, which showed duodenal mucosal with atrophy and widening of the villi accompanied by a dense diffuse lymphoplasmacytic infiltrate with severe activity but without evidence of dysplasia, granulomas or microorganisms. Later on an abdominal CT with contrast that was done showed a thickening of pancreas parenchyma with alterations of peripancreatic adipose tissue. As a result, the patient was diagnosed with idiopathic AP, possibly due to structural alteration of the duodenum. CD was also being suspected due to the gastrointestinal localization of the compromise. The patient was stabilized with medical standard treatment for AP and later on discharged with adalimumab, prednisolone and oral mesalazine until clinical remission was achieved.

***Conclusion:*** IBD-associated pancreatitis is a rare entity but of great clinical importance due to its implications on the quality of life of the patients. Table 1 summarized the demographic and clinical characteristics of the four patients at the moment of their diagnosis of pancreatitis. In none of the patients was a history of chronic alcohol consumption identified. Among the previously mentioned cases, there were important differences with respect to the etiology of their pancreatitis, which was common to observe in other reported retrospective studies. According to worldwide literature, there exist diverse causes of pancreatitis as mentioned in Table 2. It is important to recognize that based on our database of 398 patients with IBD, 4 patients were identified with pancreatitis. Among the 398 patients, 86.9% were receiving mesalazine, 59.3% steroids and 32.1% azathioprine. In other words, only 0.86% of patients with mesalazine, 1.27% with steroids and 0.78% with azathioprine developed pancreatitis. Therefore, it would not be justified to prohibit the use of these pharmacologic treatments established for the management of IBD because of a possible risk of developing pancreatitis. This observation is concordant with the conclusion of a systematic revision which reports that the association between azathioprine and pancreatitis is significant, the associated incidence is still very low (2%). The manifestations of pancreatitis among the 4 cases was difficult to diagnose except in the first case, where the association between the beginning of immune-modulating therapy with azathioprine triggered the clinical presentation and its withdrawal resulted in the resolution of the acute inflammation. The three additional cases clearly represent the diagnostic challenge that any treating doctor must confront at the moment of having a patient with IBD and pancreatitis. Other causes of pancreatitis were excluded through an adequate clinical investigation. The interdisciplinary unit of the UH-FSFB evaluated these cases through its corresponding groups of gastroenterology, coloproctology, pathology, nutrition and metabolic support. Since worldwide literature report that the main treatment of the AP does not vary than that of a patient without IBD we will refrain from extending our analysis of it in all our cases. In

the first case, a causative agent of the AP was identified and confirmed after the withdrawal of azathioprine. Thiopurines are the main drugs associated with AP, generally presenting within the first month of its utilization. Its reported incidence varies between 3-5% and it has been mostly associated with CD, as it occurred in our patient. Particularly, the female gender has been reported to have a 3-4 greater risk of presenting azathioprine associated thiopurines than males. Additionally, current CD patients also present an elevated risk. The patient in our case required hospitalization in the ICU because of the gravity of his pancreatitis, which later on resolved with conservative therapy. He was later on discharged with vedolizumab since he had not achieved clinical remission of his CD with infliximab. Potentially, a genetic exam could be done, since it has been identified that patients heterozygous for the rs2647087 gene have a greater risk of developing pancreatitis secondary to the administration of thiopurines. On the other hand, in the second clinical case the main diagnostic suspicion was that of an AP secondary to a biliary calculi due to the abrupt clinical presentation it presented with, the early autolimited inflammation and the elevation of pancreatic enzymes. However the presence of biliary lithiasis was not able to be identified in the abdominal ultrasonography. It is important to highlight that it was not possible to properly classify the severity of the AP because the patient refused that certain laboratory exams be taken. Taking this into consideration and the follow up evaluation of the patient, a presumptive diagnosis of idiopathic AP secondary to the IBD-associated inflammation of the pancreas as described in literature. This entity is reported to have an approximate incidence that varies between 1.5-33%. The third case represents the patient with the longest duration of an active IBD, as well as the patient with the greatest number of comorbidities among the four cases. As mentioned in literature, the follow up was done with imaging which were essential to know the pancreatic alterations that oriented towards the diagnosis of chronic pancreatitis. In addition, published studies helped us establish that the pancreatic exocrine insufficiency was secondary to the IBD. The continuous analysis of the interdisciplinary unit of IBD sought to discard differential diagnosis such as autoimmune pancreatitis. However, the patient had a poor response to a steroid empiric therapy and her laboratory results did not meet criteria for a definitive diagnosis. It was proposed that follow up would be continued with biopsies through echo-endosonographies in order to determine in the future the behavior of the pancreatopathy and adjust the administration of pancreatic enzymes according to her needs. The fourth case was the most discussed and debated case within the interdisciplinary unit of our institution. This was due to the fact that the patient seemed to be "converting" to CD as seen on the endoscopic findings and duodenal biopsy results. The management of the AP was satisfactory as the patient was able to gain clinical remission. The pancreatic involvement due to structural alterations of either the pancreatic ducts or the duodenal ampulla have already been documented. Under these considerations, the patient was discharged and managed with adalimumab, corticosteroids, mesalazine and endoscopic vigilance with new histologic biopsies in order to establish a possible "conversion" to CD.

***Keywords:*** Inflammatory bowel disease, extra-intestinal manifestations, pancreatitis

---

***PP-465***

## Endoscopic surveillance of biermers disease: monocentric experience

**Maryeme Kadiri, Salihoun Mouna, Acharki Mohamed, Kabbaj Nawal**

*Department of Gastroenterology, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Biermers disease is an autoimmune disorder leading to atrophic gastritis of the fundus. It constitutes a precancerous state and can evolve towards a neuroendocrine tumor or a gastric adenocarcinoma whose prognosis is poor. Endoscopic monitoring of Biermers disease is therefore necessary and regular. The purpose of our study is to report our experience in endoscopic monitoring of Biermers disease.

***Materials and Methods:*** This is a study conducted between January 2006 and April 2019 reporting all cases of Biermers disease diagnosed and followed within the department. All patients underwent gastrointestinal endoscopy with systematic antral and fundic biopsies and biopsies of current lesions. The epidemiological, clinical, endoscopic, histological and therapeutic aspects were analyzed.

***Results:*** 304 cases of Biermers disease were collected from 19197 endoscopies, representing a frequency of 1.58%. The average age of patients was 40 years with a slight male predominance (56.5%). The GI endoscopy found congestive funditis

with rarefaction of fundic folds in 65% of patients, small polypoid lesions in 25% of patients. The GI endoscopy was normal in 8% of patients.The histological study found chronic atrophic funditis in 32% of cases, chronic atrophic funditis with intestinal and pyloric metaplasia and ECL cell hyperplasia in 40% of cases, a neuroendocrine tumor with ECL cell hyperplasia in 15% cases, hyperplastic polyps in 9% of cases, a tubular adenoma in high grade dysplasia in 3% of cases. Hp infection was present in 75% of hyperplastic polyps, 50% of adenomas and 50% of neuroendocrine tumors.

***Conclusion:*** Biermers disease is a precancerous pathology. In our series, 18% of patients presented tumor degeneration, but we did not find any cases of gastric adenocarcinoma. Endoscopic and pathological monitoring is therefore necessary and regular.

***Keywords:*** Biermers disease endoscopy

---

***PP-466***

## *Foreign bodies in the upper GL tract in adults: About 79 cases*

**Maryeme Kadiri, Salihoun Mouna, Acharki Mohamed, Kabbaj Nawal**

*Department of Gastroenterology, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** The accidental or voluntary ingestion of foreign bodies (CE) is a frequent and multifactorial situation. Ingested foreign bodies can be dangerous by their location or their nature, which sometimes makes their endoscopic extraction urgent. The purpose of our work is to evaluate the success rate of extraction of foreign bodies and the means used.

***Materials and Methods:*** This is a retrospective, descriptive study over a period of 10 years (January 2009 April 2019), including all patients admitted for ingestion of foreign bodies as part of the emergency. We have listed all the foreign bodies ingested, the means used for their extraction, as well as the therapeutic success rate.

***Results:*** 79 Upper GI endoscopy (EGD) were performed for the extraction of an ingested foreign body. There is a female predominance (sex ratio: 0.73), an average age of 45.5 years (16 years-75 years). Four patients had a psychiatric history and 20 were prisoners, accidental ingestion was found in 59 cases, voluntary ingestion in 20 cases. The delay between ingestion and endoscopy was between 2 and 48 h. A scarf pin ingestion was reported in 20 patients, a food impaction in 16 patients, a dental prosthesis in 14 patients. Chicken bone in 5 patients, a razor blade ingestion in 4 patients, a coin in 3 patients, a cocaine capsule in 2 patients, the rest of patients, EGD found batteries, lighters, trichobeoar, nail clippers, snail shell, toy piece. 36.7% of the foreign body were located in the esophagus, and in 63.2% of cases in the stomach. The extraction was done by the diathermic loop, the retrieval basket and the tripod forceps, the extraction success was obtained in 60 cases (75.9%), the extraction had failed in 12 cases (15.1%) and in 7 patients (8.8%) the foreign bodies were evacuated to the stomach.

***Conclusion:*** The success rate of extraction of foreign bodies ingested, in our practice, is very satisfactory. Different means are used to achieve this extraction, which must be realized as early as possible to avoid impaction and avoid the need for surgery.

***Keywords:*** Foreign bodies endoscopy

---

***PP-467***

## *Endoscopic factors of gravity during the ulcerative colitis: The role of the ulcerative colitis index of severity*

**Salma Mechhor, Hicham El Bacha, Nadia Benzzoubeir, Manal Cherkaoui, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-Gastroenterology and Proctology, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Many different scoring systems are used as outcome measures in clinical trials, and endoscopy has an important role in most. Given the wide variation in the endoscopic assessment of the severity the Ulcerative Colitis Endoscopic Index of Severity (UCEIS) with three items: vascular pattern, bleeding and ulceration has been developed. The aim of our study is to determine the endoscopic factors of gravity during the UC, and to highlight the role of the UCEIS in the assessment of severity

***Materials and Methods:*** This is a retrospective study over a period of 5 years [January 2013 – January 2018] within the Hepatogastro-Enterology service Medicine B at the university Ibn Sina Hospital of Rabat.480 patients followed for RCH were included. The severity of the disease was assessed with the Truelove and witts score and the endoscopic severity was assessed with the UCEIS. Statistical Analysis was performed with SPSS ®20.0

***Results:*** The average age was 40 years, the sex ratio (F/H)=1.2. 33.7% of our patients were under 5ASA, 9.09% had thiopurines, 2.6% had biotherapy and 73% corticosteroids. The clinical evaluation finds a severe flare up in 28.57%. The endoscopy revealed a vascular pattern obliteration in 66.23%, patchy obliteration in 27.27% and normal in 6.49%,bleeding was absent in 46.8%, 42.9% in mucosal, luminal mild in 37.7% and luminal moderate in 1.3%.Ulcerations were absent in 18.2%, erosions in 37.7%, superficial in 19.5% and deep in 24.7%. Multivariate analysis shows that vascular pattern obliteration and the presence of ulcerations are associated with severe flare up: [p<0.001; OR=7.2; IC 95% [6.8-9.11] et p=0.002, OR=3.9; IC 95% [2.1-5.6] respectively.

***Conclusion:*** UCEIS is a validated tool to determine the severity of UC, it must replace all other scores, because of its simplicity, reproducibility and its good correlation with the clinic severity.

***Keywords:*** Ulcerative colitis, UCEIS, vasculars patterns, ulcerations

---

***PP-468***

## *Prospective validation of new diagnosis algorithm for the management of peritoneal tuberculosis using adenosine deaminase and CA-125 serum levels*

**Mohamed Tahiri, Amina Benzzine, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Ibn Rochd Hospital Center University, Casablanca, Morocco*

***Background/Aims:*** Peritoneal tuberculosis (PT) is a public health problem in developing countries, laparoscopy with peritoneal biopsies remains the god standard to confirm this diagnosis. However, it is an invasive, expansive. Thus, it is essential to use non invasive exams to make diagnosis of peritoneal tuberculosis. The aim of our work is to validate the dosage of adenosine desaminase in the ascitis as a diagnostic tool and CA125 blood levels as a follow up exam to evaluate treatment response.

***Materials and Methods:*** We conducted a prospective study between June 2014 and April 2019 including 62 patients diagnosed with peritoneal tuberculosis. All patients received a biological and radiological check up and dosage of ADA in ascitis. All patients with ADA level >30 UI underwent anti-tuberculous treatment with regular follow using of CA125 blood levels.

***Results:*** Mean age was 33years old, majority of whom were females (61%). Family history of tuberculosis was in 12.9% of cases, 9.6% of our patients had a previous history of tuberculosis. Clinical features were dominated by ascitis in 80.6% of the cases, sweats in 66%, fever in 43.5%, anorexia in 54.8%, weight loss in 61.2% and asthenia in 58% of the cases. All patients had an abdominal ultrasound showing ascitis without evidence of malignancy. The abdomial paracentesis showed exudative liquid with predominant lymphocyte levels in 90.3% of the cases and no evidence of abnormal cells. The ADA levels were determined in all cases with an average level of 68.2 IU (36-147IU/l). Chest X-ray performed on all our patients, was normal. The CA125 levels were high in all cases with an average rate of 341. Anti-tuberculous treatment was initiated in all patients with favorable outcome evaluated on weight gain, apyrexia. CA125 level decreased by 25% of the initial level after one month of treatment and was normal within 3 months in all cases.

***Conclusion:*** The ADA level is a rapid, reproducible test that can be used as an alternative to laparoscopy. Our study showed that CA125 level be used to follow up treatment response in peritoneal tuberculosis.

***Keywords:*** Peritoneal tuberculosis, adenosine deaminase, CA-125 serum levels

---

***PP-469***

## *Particularities of fibrolamellar hepatocellular carcinoma*

**Fatima Zahra Hamdoun, Hakima Abid, Maria Lahlali, Asmae Lamine, Nada Lahmidani, Mounia El Yousfi, Dafr-allah Benajah, Mohammed Abkari, Adil Ibrahimi**

*Department of Hepato Gastroenterology, Hospital Center University Hassan II, Fes, Morocco*

***Background/Aims:*** Fibrolamellar hepatocellular carcinoma (FHC) is a malignant hepatic tumor distinct from classic hepatocellular carcinoma in terms of epidemiological characteristics and prognosis. We report a series of patients with FHC through which we will identify the particularities of this rare tumor.

***Materials and Methods:*** This is a retrospective series that included patients with FHC with no underlying liver disease between January 2010 and June 2019. The diagnosis was based on anapathomopathological findings for patients undergoing surgery or on liver biopsy. The study focused on socio-demographic, clinical, imaging, histology, therapeutic options, and survival characteristics.

***Results:*** During the study period, 7 patients were carriers of FHC. The average age was 44.7 years (19; 57). The sex ratio F/H was 1.33. The circumstances of discovery of the disease were dominated by the feeling of heaviness in the right hypochondrium in 57.14% followed by the pain of the right hypochondrium 42.8%. The average rate of alpha fetoprotein was 26.16 ng / mL (2.3, 87.8) and it was negative in 42%. Imaging was performed in all our patients objectivizing a single regular big tumor. The extension assessment allowed the discovery of pulmonary metastases in one case. The average diameter of the largest lesion was 7.3 cm [2.3 cm-18.23 cm]. About 85.71% underwent hepatectomy, 1 of whom died in postoperative follow-up with hemorrhagic shock and another had recidivated 6 months later. Only one patient was put on sorafenib. The decline was 32 months. The survival at 5 years was 71.42%.

***Conclusion:*** FHC seems to have a better prognosis than classic hepatocellular carcinoma when it is managed early. The 5 year survival in our series was 71.42%.

***Keywords:*** Fibrolamellar hepatocellular carcinoma, hepatectomy, survival

---

***PP-470***

## *Is there a relation between the appendicular syndrome revealing crohns disease and its activity?*

**Boutaina Bouibaouen, Benzzoubeir Nadia, Iikram Errabih**

*Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Crohns disease, often suspected by chronic symptomatology, can also be revealed by an acute appendiceal syndrome. The aim of this work is to describe and analyse the profile of patients in whom Crohns disease was revealed by an appendicular syndrome.

***Materials and Methods:*** This is a retrospective, descriptive and analytical study of patients hospitalized over 3 years from January 2015 to January 2018. All these patients have benefited from an interrogation, a clinical examination, a biological, radiological and a digestive endoscopy.

***Results:*** 17 patients with appendicitis syndrome were identified with Crohns disease. The average age was 30 years old. 9 men and 8 women with a sex ratio of 1.12. 13 patients presented simple appendicitis, 3 patients an appendicular abscess and 1 patient, an appendicular peritonitis. 3 patients underwent ileocecal resection in emergency. 10 patients underwent emergency appendectomy, which got complicated in 3 cases with an enterocutaneous fistula, 1 case with a deep abscess, 4 cases with a deep abscess fistulized at the abdominal wall, 1 case with an ileal stenosis and 1 case of ileocecal mass. 3 patients underwent ileocecal resection afterwards. 1 patient was not operated, he has an isolated ileal thickening, put under medical treatment with good evolution. The average CDAI was 255, and the HBI at 7, being higher in patients undergoing emergency surgery. Rutgeerts's score in was higher in patients operated in emergency context (i3 i4) and i0 i1 in the rest of the patients.

***Conclusion:*** Crohns disease must be evoked showing appendicular syndromes, in order to optimize its management. In patients undergoing emergency surgery, the activity of the disease is higher, however, more studies are needed on this subject.

***Keywords:*** Crhon disease, appendicular syndrome, CDAI, rutgeerts, appendicectomy

---

***PP-471***

## *Dyspepsia in cirrhotic hepatitis c patients*

Talal Bhatti

*Pims*

***Background/Aims:*** To determine the frequency of patients with dyspepsia, its patterns of presentation and causes along with their associations with gender and age, amongst HCV cirrhotic patients presenting to a tertiary care health facility of Rawalpindi.

***Materials and Methods:*** In this cross sectional study 207 HCV cirrhotic patients, above 25 years of age irrespective of gender, were included. Patients receiving prolonged treatment of acid suppression prior to hospitalization were excluded. After taking history and performing thorough physical examination, routine laboratory investigations, abdominal ultrasonography and endoscopies were performed to determine the cause of dyspepsia.

***Results:*** Amongst 207 HCV cirrhotic patients 146 (70.5%) were presented with dyspepsia. Pain in epigastrium 92 (63.0%), heart burn 81 (55.5%) and water brash 65 (44.5%) were most common patterns of presentation of dyspepsia in HCV cirrhotic patients. Portal hypertensive gastropathy 77 (52.7%) came out as leading etiology of dyspepsia, followed by gastritis 9 (6.2%), ulcer 6 (4.1%) and cholelithiasis 4 (2.7%). Amongst those diagnosed with Dyspepsia, 25 (17.1%) patients were found to have functional dyspepsia i.e. no organic cause was found.

***Conclusion:*** Dyspepsia is very frequent phenomenon in HCV cirrhotic patients with most common patterns of presentation as pain in epigastrium and heart burn. The leading cause of dyspepsia was portal hypertensive gastropathy.

***Keywords:*** Dyspepsia, hepatitis

---

***PP-472***

## *Endoscopic aspects of granulomatous gastritis*

Belmaqrout Sara, Errabih Ikram, El Bacha Hicham, Soudine Farida, Ouazzani Laaziza, Benzzoubeir Nadia

*Department of, UHC Ibn Sina, Rabat, Morocco*

***Background/Aims***: Granulomatous gastritis is a rare entity; representing 1% of chronic gastritis, characterized by the presence of granulomas in the gastric mucosa. Their diagnosis is anatomo-pathological. The aim of our work is to focus on the endoscopic and etiological features of granulomatous gastritis.

***Materials and Methods:*** A retrospective study of 25 cases of granulomatous gastritis over a 42-year period (1976 to 2018). The antecedents sought were tuberculosis, tuberculous contagion, sarcoidosis and the history of Crohns disease. All patients benefited from gastroscopy, imaging and biological assessment.

***Results:*** 25 cases of granulomatous gastritis, including 15 women and 10 men, with a sex F / H ratio of 1.5; the average age was 39 years old. The clinical symptomatology was dominated by epigastralgia and vomiting. Gastroscopy showed, in 20 cases, erosions and gastric ulcerations associated, in 13 cases, with large gastroduodenal folds; in 4 cases an aspect of ulcero-budding lesion and in one case an infiltrating aspect. Histology revealed in all cases the presence of epithelio-giganto-cellular granuloma. The etiology of gastric granulomatosis was, Crohns disease in 13 cases, gastric tuberculosis in 11 cases, of which 2 cases were associated with ADK, and sarcoidosis in only one case.

***Conclusion:*** Granulomatous gastritis has various etiologies, it would be advisable to make multiple biopsies before any evocative lesion considering the absence of correlation between endoscopic and histological aspect.

***Keywords:*** Gastritis, granulomatous, endoscopy

---

***PP-473***

## *Symptomatic colonic angiodysplasias: Epidemiological aspects and management*

**Boutaina Bouibaouen, Nadia Benzzoubeir, Ikram Errabih, Laaziza Ouazzani**

*Ibn Sina Hopital, Rabat, Morocco*

***Background/Aims:*** Angiodysplasias are defined by an acquired alteration of the vascular structures of the digestive wall. Associated or not with gastric or hailic localizations, the colonic angiodysplasias can be manifested by a low digestive haemorrhage or an occult haemorrhage. The development of interventional endoscopy techniques allows better management of these lesions. The aim of this work is to study the different epidemiological and clinical aspects of colonic angiodysplasias as well as its means of management.

***Materials and Methods:*** We carried out a retrospective, descriptive study on patients hospitalized in the Medicine B department of Ibn Sina Hospital in Rabat for isolated symptomatic colonic angiodysplasias (patients with other digestive localizations were excluded), over a period of 10 years (from January 2008 to December 2018). These patients underwent an interrogation, a complete clinical examination, an endoscopic exploration (total colonoscopy and oesogastroduodenal fibroscopy, and sometimes video-capsule) and a management of these lesions.

***Results:*** 180 cases of symptomatic colonic angiodysplasia were collected from 5470 total colonoscopies performed during the study period. The average age of these patients was 60 years old with extremes of 32 and 80 years old. There were 144 men for 36 women, with a sex ratio of 4. Chronic kidney failure was found in 100 patients (55.5%), heart disease in 40 patients (22.2%), treatment with anticoagulants in 22 patients (12.2%). 108 patients (61.1%) presented rectorragias whereas in 70 patients (38.9%) the lesions were revealed by anemia. These lesions involved the right colon and coecum in 88 cases (48.8%), the left colon and sigmoid in 20 cases (11.2%) and the rectum in 72 cases (40%). 120 patients (66.67%) underwent argon plasma electrocoagulation, total colectomy was proposed in 1 case (0.57%) because of the extended lesions, but rejected by the patient and monitoring alone in 59 patients (32.76%).

***Conclusion:*** Colonic angiodysplasias are most often revealed by low digestive haemorrhage. The field of chronic renal failure is frequently found. The most common location is the ascending colon. Plasma Argon electrocoagulation remains the best treatment.

***Keywords:*** Angiodysplasia, colonic symptomatic

---

***PP-474***

## *Case of acute pancreatitis revealing multiple myeloma*

**Salma Mechhor, Nadia Benzzoubeir, Hicham El Bacha, Manal Cherkaoui, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-gastro-enterology and Proctology Medecine B Service*

***Introduction:*** The etiology for acute pancreatitis is mainly biliary or alcoholism. Although the association of acute pancreatitis with hypercalcemia of various etiology is well established and it remains rare. We report an interesting case of acute pancreatitis secondary to hypercalcemia of multiple myeloma. In litterature, only two other cases have been published. We report a third case by emphasizing the interest of biological parameters and imaging in diagnostic orientation and discussing its clinical impact.

***Case:*** This is a 65-year-old patient admitted to the emergency for acute pancreatitis with a lipase level four time upper limit,and in whom the abdominal CT scan showed oedematous pancreas and multiple vertebral osteolytic lesions. The etiological investigations showed major hypercalcemia (140 mg/l) and high serum protein(90 mg/l). A bone marrow biopsy revealed an infiltration of 25% plasma B cells confirming the diagnosis of multiple myeloma. The patient was kept NPO (nothing by mouth) and treated for hypercalcemia with IV hydration coupled with administration of bisphosphonates and corticosteroid, she also received analgesic treatment.Despite a slight improvement a multi-organ failure occured before she began chemotherapy for multiple myeloma.

***Conclusion:*** This case exhibit an unexpected presentation of multiple myeloma as acute pancreatitis, highlighting the myriad of clinical manifestations that can be associated with this pathology.

***Keywords:*** Pancreatitis, multiple myeloma, hypercalcemia

---

***PP-475***

## *G.I. endoscopy in underdeveloped country*

**Andrea Ederle, Gemma Mkondoo, Carlo Widmayer, Nunzio Carone, Gianpiero Aimo, Gianpiero Bagnalasta, Chiara Bovo, Ephrem Ntakirutimana, Augustin Makenya, Theodora Mwatsu, Ezekiele Moirana**

*Geof Co Fondazione Mo C.e. Via Caroto 14 Verona, Italy*

***Background/Aims:*** A group of 10 italian endoscopists have been asked to develope a g.i.endoscopic teaching service in a religious hospital of subsaharian underdeveloped Africa. We first asked ourselves if endoscopy is cost effective where there is still the problem to cure many severe deadly diseases, and if the learning doctors then can stay in our hospital and not to go in private clinics and finally if is possible to have enough refferal of patients from hospitals who have never used and don't know endoscopy. We elaborated also on possible organization and legal authorization.

***Materials and Methods:*** We collected important data about G.I. Diseases from public registers and met doctors from 6 Hospitals close to our hospital. First of all has been investigated the possibility to teach g.i. endoscopy to local doctors

who possibly garantee that they have to stay in the same hospital for some years. We found 5 doctors but The Verona University-Hospital gave us some used endoscopes and Italian Bishops Conference (CEI) gave us money to built the building and to buy other regenerated endoscopies and accessories. We tried to recruit italian collegues from our scientific Societies who were very interested, but only 10 made the documents (one year for Work permit and Order of Doctors registration).

***Results:*** For the long bureaucratic time we lost 4 of 10 italian doctors. The 6 came in different periods from 15 to 2 weeks each. We lost 4 of 6 local learning doctors: 3 because to learn Endoscopy is not quick and one for lack of specialisation. We did 464 endoscopies (372 EGDS and 92 colonoscopies) in 130 working days: 155 (41.6%) EGDS with no or minor diseases, 57 (15.3%) bleeding varices treated, 107 (28,6) severe often complicated with alarm symptoms peptic diseases, 28 (7.5%-many treated) cancer 14 (3.7%), fungal infections 6 (1.6%), acalasia and other more rare diseases. Colonoscopies: 65 (70.6) normal 9 (9.7%) very advanced cancers, 3 (3.2%), RCU and other minor diseases. Most endoscopies where done after meetings and visit with the doctors of the 6 hospital. After us many other hospitals started to do endoscopy.

***Conclusion:*** Colonoscopy is less useful then EGDS which is often life saving particularly where schistosomiasis is present, bleeding,treatment and necessity of dd with cancer particularly in order to avoid explorative laparotomy. Is very difficult and expensive to start an endoscopy teaching service in an underdeveloped country and is important to know local uses, laws, mentality of local people. The important result was to develop the consideration and the knowledge of G.I.endoscopy. the necessity of G.I. Endoscopy as a life saving presidian in a country.

***Keywords:*** Endoscopy, health organization, schistosomiasis

---

***PP-476***

## *Place of the percutaneous biliary drainage*

**Fatima Zahra Hamdoun, Hakima Abid, Maria Lahlali, Asmae Lamine, Nada Lahmidani, Mounia El Yousfi, Dafr-allah Benajah, Mohammed Abkari, Adil Ibrahimi**

*Department Of Hepato Gastroenterology, University Hospital Center Hassan Ii Of Fes, Morocco*

***Background/Aims:*** Neoplastic jaundice signifies an advanced stage of the cancerous diseas. Percutaneous biliary drainage (PBD) is a simple and alternative mean with minimal complications when endoscopic drainage is not possible. The objective of our study is to evaluate the efficacy of PBD in the palliative treatment of neoplastic jaundice.

***Materials and Methods:*** It is a retrospective study from January 2015 to Decembre 2018. The variables of interest were collected using a questionnaire. The efficacy was judged immediately by the absence of complications, the flow of bile in the drain and in the medium term by a regression of jaundice.

***Results:*** Thirty-five patients received PBD for neoplastic jaundice of biliary, pancreatic or gastric origin. The average age was 61.52 years old. The sex ratio (F / H) was 2.02. Jaundice was due to biliary origin in 57.8% and due to pancreatic in 36.8%. Patients were admitted for cholangitis in 59%. The PBD was trans hepatic in 73.6% and trans gallbladder for the rest. The overall success rate was 89%: 75% for trans gallbladder and 93.75% for trans-hepatic. We noted: peritonitis two days afler the biliary drainage and re-ascension of bilirubinemia five days after.

***Conclusion:*** PBD is an alternative palliative mean of treating neoplastic jaundice with an overall success rate of almost 90%.

***Keywords:*** Percutaneous biliary drainage; neoplastic jaundice; palliatuve treatment

***PP-477***

## *Diagnostic accuracy of computed tomography scan, keeping endoscopic ultrasonography as gold standard for detection of pancreatic carcinoma in pakistani population*

**Talal Khurshid Bhatti, Mashood Ali, Umar Muhammad**

*Pims*

***Background/Aims:*** Endoscopic Ultra sonography (EUS) and Computed Tomography (CT) scan are diagnostic techniques that are considerably important in preoperative diagnosis of pancreatic carcinoma (CA). Even though EUS has been confirmed to be more effective in accurate diagnosis but CT scan is still used commonly being easily accessible, cost effective and non invasive in most of developing countries. The objective of this study was to determine the diagnostic accuracy of CT scan findings keeping EUS as the Gold Standard procedure.

***Materials and Methods:*** This cross sectional study was conducted at the Liver centre of Holy Family Hospital, where all 75 suspected cases of pancreatic CA. patients who underwent both; Computed Tomography and EUS, each diagnostic procedure performed by same team of radiologists and gastroenterologists respectively, in the year 2014 were included. The diagnosis of each individual patient for carcinoma of pancreas, confirmed through EUS was taken as gold standard. Sensitivity, Specificity, Positive and Negative predictive values along with 95% confidence intervals (CI) were calculated. Diagnostic accuracy of CT scan compared to EUS was also thereby calculated.

***Results:*** Sensitivity and Specificity of CT scan was found to be as 97.14% (CI=85.08%-99.93%) and 95% (CI=83.08%-99.39%). The positive predictive value was calculated as 94.44% (CI=81.74%-99.32%) while negative predictive value was97.44% (CI=86.52%-99.94%). Diagnostic accuracy was 96%.

***Conclusion:*** The diagnostic capability of CT Scan in diagnosis of pancreatic CA is almost nearly effective to EUS.

***Keywords:*** *Endoscopic ultasonography, computed tomography, diagnosis, pancreatic cancer, sensitivity, specificity, predictive values of test*

---

***PP-478***

## *Dysphagia in Pakistani population; What are the patterns of endoscopic findings in them?*

**Talal Khurshid Bhatti, Nashhood Ali, Aamir Saleem**

*Pims*

***Background/Aims:*** To see the pattern of upper GI endoscopy findings in patients presenting with Dysphagia in relation with age, gender and symptoms duration.

***Materials and Methods:*** A retrospective analysis of 738 patients presented at A&E and GI OPD from January 2011 to October 2014 with history of dysphagia for solid or liquids. These patients were enrolled, an upper GI endoscopy was performed and findings were recorded. The data was analyzed on SPSS 20 and descriptive statistics recorded and results were analyzed as in given table.

***Results:*** The pattern of pathologies on EGD is as shown in Table 1.

***Conclusion:*** Although a good number of patients had a non mechanical etiology of dysphagia but majority of the patients had an underlying mechanical cause of obstruction. Majority of patients presenting with dysphagia and age

above 40 had a neoplasia. Majority of patients presenting with dysphagia and age below 40 had post corrosive intake injury of the esophagus.

***Keywords:*** Esophageal web, esophageal neoplasm

| No. | Endoscopic Finding | Number | %age | Mean Age (yrs) | Male : Female ratio |
|---|---|---|---|---|---|
| 1 | Esophageal Neoplasm | 180 | 24.4% | 54 | 1.95:1 |
| 2 | Post Corrosive Esophageal Stricture | 161 | 21.8% | 28 | 1:1.46 |
| 3 | Normal EGD | 158 | 21.4% | 38 | 1:1 |
| 4 | Hiatus Hernia | 111 | 15.1% | 41 | 1.2:1 |
| 5 | Achalasia Cardia | 45 | 6.1% | 42 | 1:1 |
| 6 | Esophageal Candidiasis | 37 | 5.1% | 42 | 1:1.5 |
| 7 | Esophageal Foreign Body | 29 | 3.8% | 45 | 1:1.2 |
| 8 | Tracheo-Esophageal Fistula | 09 | 1.1% | 29 | 1:0 |
| 9 | Esophageal Web | 07 | 1% | 48 | 1:1.5 |
| 10 | Zenker's Diverticulum | 01 | 0.2% | 43 | 1:0 |

***PP-479***

## *Hepatobiliary manifestations associated to chronic inflammatory bowel disease*

**Fatimazahra Cheikhna, Hind Omari, Mohamed Tahiri, Fouad Haddad, Ahmed Bellabah, Wafaa Hliwa, Wafaa Badre**

*Centre Hospitalier Universitaire IBN Rochd, Casablanca, Morocco*

***Background/Aims:*** Hepatobiliary manifestations associated to chronic inflammatory bowel disease (IBD) are relatively frequent, however, their etiopathogeny remains various and unclear. The aim of our study is to evaluate the frequency and etiological profil of hepatobiliary manifestations during IBD.

***Materials and Methods:*** Retrospective study conducted between April 2016 and August 2018 including all patients followed in our department for IBD and who have benefited from clinical, biological and morphological explorations to detect hépatobiliary manifestations.

***Results:*** Two hundred and eighteen patients with IBD were included, 123 of whom had a Crohn's disease (56,4%) and 95 cases of UC (43,6%), the mean age was 34,71years (range, 14-82years) with a sex ratio of 1,02 (50,5% males and 49,5% females). Eighteen cases of hepatobiliary manifestations were diagnosed in 11cases of ulcerative colitis and 7cases of Crohn's disease. Etiological investigations revealed 8cases of hepatic steatosis, 2cases of primary sclerosing cholangitis, 2cases of autoimmune hepatitis, 1case of primary biliary cholangitis, 1 case of cholecystitis, 1case of cirrhosis, 1case of moderate portitis lesions, 1case of unexplained cytolysis, 1case of hepatitis B.

***Conclusion:*** The prevalence of hepatobiliary manifestations is 8,25% dominated by hepatic steatosis, some of these manifestations may worsen the prognosis of IBD hence the importance of early detection.

***Keywords:*** IBD, hepatobiliary manifestations

***PP-480***

## *Genital crohn; About twelve cases*

**Khaoula El Montacer, Fatimazahra Cheikhna, Mohamed Tahiri, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Centre Hospitalier Universitaire IBN Rochd, Casablanca, Morocco*

***Background/Aims:*** Genital Crohns disease (CD) is rarely reported in literature. It can be an extension of fistulizing intestinal CD or a metastatic form revealing CD. The treatment remains a challenge for practitioners due to absence of therapeutic consensus. A multidisciplinary approach between gastro-enterologists, radiologists, surgeons and gynecologists could improve its prognosis. The aim of the study is to present the clinical aspects and treatment outcomes of genital CD.

***Materials and Methods:*** Retrospective, descriptive and analytic study conducted between January 2001 and July 2019, included 12patients. The clinical data were collected from archived files respecting their confidentiality and were analyzed on Excel.

***Results:*** Twelve patients, 10 of whom were female with mean age of 41years (range, 25-67years). The genital manifestations revealed CD in 9cases. The main symptoms involved proctalgia and purulent discharge. All cases were associated to anoperineal lesions. The intestinal symptoms were found in 8cases. The genital CD was severe (3cases of recto-vaginal fistula, 1case of vaginal fissuration, 4cases of deep lacerations in intergluteal and inguinal fold that extended to scrotum and penis in 2patients and 4cases of vulval lesions including vulval abscess, fistula and hypertrophy). The blood tests showed inflammatory signs in all cases. Five patients needed diverting stoma. Two patients received anti-bacillary treatment without healing. Nine patients had surgery (abscess drainage, seton placement and excising the disfiguring hypertrophic masses). Medical treatment was a combination between Azathioprine and anti-TNF therapy in 7cases and Azathioprine monotherapy in 3patients. Antibiotics were prescribed to all patients. The disease remains active in 9cases. Three patients were lost to follow-up.

***Conclusion:*** Despite our small work sample, we noticed an aggressive genital CD resistant to treatment escalation with major life quality alteration. More studies with larger recruitment are necessary to improve its management.

***Keywords:*** Genital CD, anti-TNF therapy, surgery, prognosis

---

***PP-481***

## *Multidisciplinary approach to the major abdominal surgery in ulcerative colitis-23 year data of a center in a South American country*

**Jong Hyuk Park[1], Cristian Camilo PÁez Cancelado[1], BelÉn Elvira Mendoza De Molano[1], Rocío Del Pilar LÓpez Panqueva[1], Jorge PadrÓn Mercado[1], Adriana Margarita MarÍa Rey Rubiano[1], Eduardo Emilio LondoÑo Schimmer[1], Rafael GarcÍa Duperly[1]**

*[1]FundaciÓn Santa Fe De Bogota*
*[2]Universidad De Los Andes*

***Background/Aims:*** Many patients with Ulcerative Colitis (UC) require a clinical, pathologic and surgical management. In Colombia, it has been reported that around 4.8-6% of patients with UC require surgery. Surgical outcomes of these patients are not well known. Our objective is to contribute to the lacking surgical epidemiology of UC in South America.

***Materials and Methods:*** Retrospective Descriptive Cohort Study. Clinical histories, pathology reports, and endoscopic results from our software HI-ISIS of the University Hospital Fundación Santa Fe de Bogotá and specialists' softwares between January 1996-February 2019 were recollected, stored in Excel and analyzed using IBM SPSS Statistics Visor. UC patients with a history of major abdominal surgery were included. Patients with liver transplant were excluded.

***Results:*** Of 398 patients with Inflammatory Bowel Disease (IBD), 71.6% had UC, 25.6% Crohn's Disease. 19 patients were included in this study of which 36.8% were male and 63.2% female. With an average of 6.11 (+6.9) years of IBD diagnosis, patients were on average diagnosed at 46.58 (+18.2) years (range of 16-77). 5.3% presented left colitis and 94.7% pancolitis. 31.6% were with biologic therapy (BT). 78.9% of the surgeries were programmed and 21.2% were urgencies. With respect to programmed surgeries, 80% were total proctocolectomies with ileoanal pouch anastomosis (TP-IPAA), 20% were subtotal/total colectomies with rectum preservation, 6.6% TP with ileostomy and 6.6% abdominoperineal resections. The main surgical indications (SgI) were: refractory to medical treatment (40%), cancer (26.6%) and steroid dependency (13.3%). 10 required surgical re-interventions (SRI) for an ileal pouch formation. 26.6% had cancer in their surgical pathology reports (SPR). 40% presented postoperative complications (PoC). With respect to urgent surgeries, 2 TP-IPAA, 1 hemicolectomy, and 1 sigmoidectomy were performed. The main SgI were: lack of symptom resolution with medical treatment, toxic colitis, and intestinal perforation. All of these patients required a SRI in which they received a TP-IPAA. 1 patient had cancer in his SPR. 2 presented PoC. The main PoC for both programmed and emergency surgeries were ileus and abscess formation. The average follow up time was of 65.1 (+91,4) months.

***Conclusion:*** The prevalence of surgery in UC in our medium was lower than that reported in worldwide literature. More studies are required to understand the epidemiology of surgery in UC in South America.

***Keywords:*** Ulcerative, colitis, surgery

---

***PP-482***

## *Multidisciplinary approach to the major abdominal surgery in crohns disease-23 year data of a center in a South American country*

**Jong Hyuk Park[2], Cristian Camilo Páez Cancelado[1], Belén Elvira Mendoza De Molano [1], Adriana Margarita MarÍa Rey Rubiano[1], Jorge Padrón Mercado [1], Eduardo Emilio Londoño Schimmer [1], Rafael GarcÍa Duperly[1]**

*[1]Fundación Santa Fe De Bogotá*
*[2]Universidad De Los Andes*

***Background/Aims:*** Patients with CD frequently require a clinical, pathologic and surgical approach. In Colombia, it has been reported that 27.5-40% of patients with Crohns Disease (CD) require surgery. Surgical outcomes of these patients remains poorly elucidated. The objective of our study is to contribute to the limited surgical epidemiological data of major abdominal surgery (MAS) of CD in South America.

***Materials and Methods:*** Retrospective Descriptive Cohort Study. Clinical histories, pathology reports, and endoscopic results from our software HI-ISIS of the University Hospital Fundación Santa Fé de Bogotá and specialists' softwares between January 1996-February 2019 were recollected, stored in Excel and analyzed using IBM SPSS Statistics Visor. CD patients with MAS were included. Perianal surgeries were not analyzed.

***Results:*** Of 398 patients with Inflammatory Bowel Disease (IBD), 71.6% had Ulcerative Colitis and 25.6% CD. 28 patients were included in this study of which 35.7% were men and 64.3% female. With an average of 3.61 (+6,7) years of IBD diagnosis, patients were diagnosed on average at an age of 57.04 (+19,2) (range of 14-86). 39.3% presented ileal compromise, 10.7% colonic, 50% ileal-colonic; 75% stenosing and 21.4% penetrating behavior. 60.7% were with biological therapy (BT), of which 41.7% had a second line BT. 46.4% of surgeries were programmed and 53.6% were urgencies. Among programmed surgeries, 69.2% were right hemicolectomy/ileocecal resections (RH/IR), 15.4% were small-bowel resections (S-BR) and 15.4% were abdominoperineal resections. The main surgical indications (SI) were: obstruction (69.2%), cancer (15.4%), and fistula (15.4%). 1 required a surgical re-intervention (SRI) for a remodelling of an ostomy. 2 presented postoperative complications (PoC): bleeding and stenosis. With respect to the surgical pathology reports (SPR), 10.7% reported cancer. Among emergency procedures, 73.3% had RH/IR, 20% S-BR and 6.7% others. The main SI were: obstruction (80%), intestinal perforation (6.6%) and fistula (6.6%). 1 intraoperative mortality was reported. 13.3% required an ileostomy. While 73.5% did not

present PoC, 13.3% developed ileus, 6.6% an abscess, and 6.6% bleeding. 13.3% required SRI: 1 S-BR and 1 abscess drainage. The average follow up time was of 39.68 (+46) months.

***Conclusion:*** Despite the use of BT, there is still a high prevalence of urgent procedures being performed. Much work is yet to be done to reduce the surgical burden of patients with CD.

***Keywords:*** Inflammatory bowel disease, crohns disease, biological therapy

---

***PP-483***

## *Biological therapy experience in inflammatory bowel disease patients in a university hospital in Bogotá, Colombia*

**Harol Felipe García Arévalo[2], Jong Hyuk Park Noh[2], Cristian Camilo Páez Cancelado[1], Rafael García Duperly[1], Rocío Del Pilar López Panqueva[2], Belén Elvira Mendoza De Molano[1]**

*[1]FundaciÓn Santa Fe De Bogotá*
*[2]Universidad De Los Andes*

***Background/Aims:*** The incidence of Inflammatory Bowel Disease (IBD) has been increasing in Latin America. Both, Crohns Disease (CD) and Ulcerative Colitis (UC) are associated with high costs to the health system, especially with biological therapy (BT). BT is the most effective non-surgical alternative for chronic management of IBD. Our aim is to describe the experience of the use of BT in our University Hospital Fundación Santa Fe de Bogotá (UH-FSFB) in order to contribute to the lacking BT epidemiology in Colombia.

***Materials and Methods:*** Descriptive retrospective cross-sectional study. Clinical histories, pathology reports, and endoscopic results from our software HI-ISIS of the UH-FSFB and specialists' software between January 1996-February 2019 were recollected, stored in Excel and analyzed using IBM SPSS Statistics Visor. Patients with UC and CD with BT were included.

***Results:*** Of 398 patients with IBD, 55 patients, 34.% with UC and 65.5% with CD were included in this study. The average age of IBD diagnosis was 36 years for patients with UC and 41 years with CD. The average time between IBD diagnosis and BT requirement was on average 2.7 years for UC and 7.7 years for CD. 60% of patients required only one biological therapy. However, 40% required a second line BT and 7.27% required a third line BT. Among the first line BT that patients used, adalimumab (ADA) was used in 56.3%, infliximab (IFX) 41.8% and vedolizumab (VED) in 1.9% of cases. Among patients that required a second line BT, 45.5% used ADA, 36.5% IFX, 9% VED, 4.5% ustekinumab (UTK) and 4.5% golimumab (GLM). Finally, only 4 patients required a third line BT, 50% VED, 25% IFX and 25% certolizumab (CTZ). Previous to the use of BT, patients with moderate-severe clinical presentation had a favorable clinical response in 72.2% among UC patients and 95% among CD patients. The most frequent complications that occurred after starting BT were different among each diagnosis. Among patients with CD, 8.3% developed an allergic reaction and 8.3% a viral infection. 10.5% of UC patients developed bacterial infections and 10.5% allergic reactions. 7 patients with CD required surgery after BT with an average of 0.7 years between first-line BT and surgery. 3 patients with UC required surgery after BT, with an average of 2 years between first-line BT and surgery.

***Conclusion:*** The use of BT was similar between UC and CD as alternative management of refractory conventional therapy. A favorable clinical response was obtain with first-line BT in the majority of patients with IBD. Despite the high cost for the Colombian health system, access to BT is guaranteed for IBD.

***Keywords:*** Inflammatory bowel disease, biological therapy, Colombia

***PP-484***

# *High resolution esophageal manometry: A useful modality in evaluation of non-structural dysphagia and its management*

**Adeel Abid, Farheen Lubna, Farhana Kayani, Safia Awan, Shahab Abid**

*Aga Khan University, Pakistan*

***Background/Aims:*** Dysphagia is an important alarm symptom of the gastrointestinal (GI) tract. Quite often upper GI endoscopy reveals nothing significant to explain dysphagia. In such patients evaluation for motility disorder is recommended. The present study is aimed to evaluate the outcome of high resolution esophageal manometry (HREM) and its comparison with barium swallow in the management of such patients.

***Materials and Methods:*** Patients with symptoms of dysphagia with normal endoscopy were subjected to esophageal manometry (and to barium swallow as a part of routine workup. Patients were categorized according to Chicago classification v3.0. Findings of esophageal manometry were compared to barium swallow findings. A follow-up of these patients was done after a one year interval to evaluate improvement in their symptoms. Patients were categorized as 'improved', 'partially improved' and 'not improved' on the basis of subjective assessment of symptomatic improvement by the patients. The three categories were made *a priori* according to improvement in symptoms by >50%, >25% but <50% and <25% respectively.

***Results:*** High resolution esophageal manometry was done in 202 patients. Abnormal findings were found in 160 (79. 2%) with achalasia being seen in 72 (35.6%) of the total patients, making it the most common abnormal finding reported. Out of 72 patients who were diagnosed to have achalasia on HREM, only 46 (32.6%) patients had their barium swallow study result consistent with HREM and this difference is statistically significant (p<0. 001). Comparison of other HREM findings with barium swallow is given in Table 2. Among achalasia patients, laparoscopic surgery was performed in 22 (30.5%) patients, balloon dilatations in 47 (65.27%) while 3 (5.5%) were given botulinum toxin injections. Response to various treatment modalities for achalasia is shown in Table 3. Patients with motility disorder other than achalasia were treated with combination of various medical modalities, which included proton pump inhibitors, calcium channel blockers and selective serotonin receptors blockers. Among these 130 patients on medications complete resolution of symptoms was observed in 37 (28.44%) patients, 25 (19. 23%) had partial response while no effect was seen in 68 (52. 3%) patients.

***Conclusion:*** High resolution esophageal manometry can diagnose significantly more patients with achalasia compared to barium swallow. Majority of patients with achalasia improve with dilatation or surgery. However patients with motility disorder other than achalasia have shown poor response to treatment.

***Keywords:*** Non-structural dysphagia, High resolution esophageal manometry, Barium swallow, Achalasia

***Table 1.*** Spectrum of esophageal motility disorders on HREM*

| Disease | Frequency | Percentage |
|---|---|---|
| Achalasia | 72 | 35.6 |
| EGJ outflow obstruction | 10 | 5.0 |
| Jackhammer | 4 | 2.0 |
| Absent peristalsis | 8 | 4.0 |
| Weak peristalsis with small periallic defects | 8 | 4.0 |
| Weak peristalsis with large periallic defects | 16 | 7.9 |
| Others(not specified, rapid contraction) | 14 | 6.9 |
| Distal esophageal spasm | 28 | 13.9 |
| Normal | 42 | 20.8 |

*HREM-High resolution esophageal manometry

***Table 2.*** Comparison of HREM* vs. Barium swallow

| | HREM | | | |
|---|---|---|---|---|
| Barium | Achalasia n=72 | Normal n=42 | Others n=88 | p value |
| Normal | 12 (16.7%) | 24 (57.1%) | 34 (38.6%) | |
| Achalasia | 46 (63.8%) | 4 (9.5%) | 16 (18.1%) | <0.001 |
| Others | 14 (19.4%) | 14 (33.3%) | 38 (43.1%) | |

*HREM-High resolution esophageal manometry

***Table 3.*** Outcome of treatment of Achalasia (n=72)

| | Improved | Partially improved | No improved or relapsed | p value |
|---|---|---|---|---|
| Laparoscopic surgery | 12 (54.5%) | 6 (27.2%) | 4 (18.1%) | |
| Balloon dilatation | 29 (61.7%) | 10 (21.2%) | 8 (17.0%) | <0.001 |
| Botulinum toxin injection | 1 (33.3%) | 0 (0%) | 2 (66.6%) | |

***PP-485***

## *Nodules and polypoid form of lesions, not lesion place are independent factors to intestines tuberculosis from complete colonoscopy findings in a high prevalence tuberculosis area in Indonesia*

**Eka Surya Nugraha, Muhammad Begawan Bestari, Dolvy Girawan, Siti Aminah Abdurachman**

*Department of Gastroenterology, Division of Hepatology, Internal Medicine Department, School of Medicine Universitas, Padjadjaran / Hasan Sadikin General Hospital Bandung*

***Background/Aims:*** Intestines Tuberculosis (TB) and other intestine-colon diseases have overlapping features from colonoscopy. Histology is mandatory to establish definite diagnosis. However, histology results often uncertain, even in the high prevalence area of TB. The aims of this study are to classify the location and features of the lesion from complete colonoscopy findings in relation to histology results, and obtain the significant independent factors to initiate diagnosis.

***Materials and Methods:*** A cross sectional study was conducted in Hasan Sadikin General Hospital Bandung from 2016 – 2018. Complete colonoscopy to terminal ileum or caecum with histology were included. Normal colonoscopy finding, totally obstructed lumen, and absence of histology were excluded. The lesion location, lesion features, and histology results were subjected to analyses. Univariate analyses used chi-square, moderate association ($p<0.25$) were taken as candidate to multivariate logistic regression. Significant relation ($p<0.05$) were acquired as independent factors.

***Results:*** Total 194 complete colonoscopy were included. Histology findings were Tuberculosis (TB) (3.1%), Crohn Disease (CD) (9.3%), Ulcerative Colitis (UC) (3.6%), benign (8.2%), malignant (7.7%), miscellaneous colitis (2.5%), and non-specific (65.5%). Univariate analyses resulted TB, benign, and malignant findings met the criteria ($p<0.25$). Multivariate analyses showed independent factors for TB were nodules form (Odd Ratio (OR) 15.3; Confidence Interval (CI) 2.1 – 114.9), polypoid (OR 7.1; CI 1.0 – 48.2), and luminal narrowing (OR 5.6; CI 0.9-34.4). Independent factors for the benign were pseudopolyps (OR 9.6; CI 1.8 – 49.7) and descendent colon location (OR 5.5; CI 1.3 – 24.1). Independent factor for the malignant was bleeding or blood clot (OR 5.3; CI 1.6 – 17.4).

***Conclusion:*** This study demonstrated that nodules form, polypoid, and luminal narrowing are independent factors for TB. Pseudopolyp and lesion located in descendent colon are related to the benign, furthermore, bleeding or blood clot is independent factor for malignancy.

***Keywords:*** Colonoscopy, histology, tuberculosis

***PP-486***

## *Nonspecific elevated serum amylase and lipase in diabetic ketoacidosis without hypertriglyceridemia: A case report*

**Jualita Heidy Saputri[1], Budi Widodo[2], Titong Sugihartono[2], Ulfa Kholili[2], Ummi Maimunah[2], Herry Purbayu[2], Poernomo Budi Setiawan[2], Iswan Abbas Nusi[2], Tri Asih Imroati[2]**

*[1]Department of Internal Medicine, Airlangga University School of Medicine, Surabaya, Indonesia*
*[2]Department of Internal Medicine, Division of Gastroenterohepatology, Dr Soetomo General Academic Hospital Surabaya, Airlangga University School of Medicine, Surabaya, Indonesia*

Increased amylase and lipase occurs 16-25% of the time in diabetic ketoacidosis (DKA). Acute pancreatitis (AP) can present or coexist with DKA. We present a case of nonspecific elevated enzymes without clinical and radiographic evidence of AP. A 36-year-old female with loss of consciousness since 12 hours ago. Four days ago, patient feel mild epigastric pain, thirsty, drink a lot of water, dry mouth. No history of diabetes mellitus or alcohol abuse. We found comatose, blood pressure 92/63 mmHg, heart rate 138 beats/min, respiration rate 24 breaths/min, kussmaul sign, temperature 37.2$^0$C, oxygen saturation 99% with nasal, BMI 22 kg/m$^2$. Pupil isokor, no lateralization. No rhonchi. Hemoglobin 12.7 g/dL, WBC 23,300 cell/uL, platelet 407,000 cells/uL, glucose 528 mg/dL, ketonuria (+2), proteinuria (+2), and glucosuria (+3), acidosis metabolic, anion gap 30 mEq/L, serum osmolality 311 mOsm/kg. The diagnose was DKA. The therapy was crystalloid fluid replacement 4500 mL, enteral nutrition, insulin intravenous 2.5 unit/hour, sodium bicarbonate intravenous 50 mEq/ 12 hours, and antibiotic third generation cephalosporin. Day 3, the patient was alert, without epigastric pain, stabile hemodynamic, glucose 464 mg/dL, ketonuria (+1), amylase 402 U/L, lipase 962 U/L, triglyceride 149 mg/dL, HbA1C 7.8%, C-peptide < 0.01 ng/mL, abdomen ultrasonography was unremarkable. The patient was newly diagnosed DM with DKA and nonspecific elevated amylase and lipase. The patient can intake per oral, insulin intravenous 2 unit/hour, continue fluid replacement 1500 mL/day. Day 12, glucose 178 mg/dL, amylase 78 U/L, lipase 388 U/L, the patient was discharge with insulin basal-bolus therapy. Hyperglycemia, insulin resistance, DKA cause damaged and altered function of acinar cell. It make pancreatic exocrine insufficiency and lead acute pancreatitis or asymptomatic hyperamylasemia and hyperlipasemia. We need to CT abdomen contrast patient with clinical symptom and elevated enzymes. Optimization management of DKA can prevent AP.

***Keywords:*** Hyperamylasemia, hyperlipasemia, diabetic ketoacidosis

***PP-487***

## *Severe iron deficiency anemia due to hookworm infection in a patient with liver cirrhosis: A case report*

**Nadya Mutiara Viryani[1], Ulfa Kholili[2], Budi Widodo[2], Titong Sugihartono[2], Ummi Maimunah[2], Herry Purbayu[2], Poernomo Budi Setiawan[2], Iswan Abbas Nusi[2]**

*[1]Department of Internal Medicine, Airlangga University School of Medicine, Surabaya, Indonesia*
*[2]Department of Internal Medicine, Division of Gastroenterohepatolgy, Dr. Soetomo Teaching Hospital Airlangga University School of Medicine, Surabaya, Indonesia*

Iron deficiency anemia (IDA) is associated with several pathological gastrointestinal conditions and a common complication of chronic liver diseases. We report a case of a 45-yo woman with liver cirrhosis who suffered from severe chronic iron deficiency anemia due to *Ancylostoma duodenale* infection. Patient admitted to our hospital with chief complain of chronic fatigue, dizziness and shortness of breath. Six months prior to admission, she had been diagnosed with liver cirrhosis child-Pugh score B related to Hepatitis B, esophageal varices grade 1 and her fibroscan score was F4 (24.8 kPa). There is no history of nausea, burning pain in retrosternal region, coffee-ground vomit or black stool. Laboratory investigations revealed iron-deficiency anemia with microcytic hypochromic erythrocytes [RBC $2.86x10^6$/µ, hemoglobin 5.5 g/dl, hematocrit 24%, MCV 69.2%, MCH 20.5pg, MCHC 25.1 g/dL, Platelet count $84x10^3$/µ, serum iron 21 µg/dL, TIBC 348 mg/dL, serum ferritin 12.50 ng/ml]. The differential count showed neutrophils 46.8%, lymphocytes 20.9%, monocytes 9.6% and eosinophil 22.7%. Other biochemistry examinations, including electrolytes, liver and renal functions were within normal limits. Stool routine examination showed presence of occult blood but no parasitic eggs. Endoscopic examination revealed live and motile worms less than 1 cm in length in duodenum. The gastric mucous was erythematous with and old ulcer in the antrum. Three live worms were individually easily lifted off the mucosa and sent for histopathologic examination which result was *A.duodenale*. The patient was treated with blood transfusion due to symptomatic severe anemia, albendazole 400 mg po once and iron supplementation. Overlapping cause of IDA in one patient is a rare case. In this patient intestinal parasitic infection were not consider first because the underlying disease of liver cirrhosis could also lead to IDA from other route of complications such as variceal rupture, gastropathy, gastric antral vascular ectasia (GAVE) or peptic ulcers.

***Keywords:*** Iron deficiency anemia, hookworm infection, liver cirrhosis

---

***PP-488***

## *Case report: A case of hemobilia caused by hepatic artery pseudoaneurysm*

**Johaniya Dimaporo, James Crisfil Fructuoso Montesa, Jerica Esguerra, Virgilio Bañez**

*Manila Doctors Hospital, Manila, Philippines*

***Introduction:*** Hemobilia from a rupture of hepatic artery pseudoaneurysm is a rare, unpredicateble, and life threatening vascular complication. Its management has evolved largely because of changes in etiology and presentation and advances in endovascular therapy

***Case:*** This is a case of a fifty-eight year old female who initially presented with hematemesis and hematochezia. The patient had previously undergone laparoscopic cholecystectomy two years prior to her admission and had undergone endoscopic retrograde pancreaticoduodenoscopy (ERCP).

***Conclusion:*** Esophagogastroduodenoscopy (EGD) was done which revealed a choledochoduodenal fistula just above the ampullary opening with the presence of blood clot and drainage of bile. Computer Tomography (CT) scan with angiography of the abdomen was done which revealed findings of pseudoaneurysm at the distal portion of the right hepatic artery. The patient was aggressively resuscitated and successfully managed via endovascular embolization. The diagnosis of visceral artery aneurysm should be considered in any patient presenting with gastrointestinal bleeding and hemodynamic compromise. CT angiography is the diagnostic modality of choice, as it is rapidly attainable and provides detailed information regarding the anatomy and underlying pathology. Early aggressive resuscitation and coagulopathy reversal with blood products are essential, and definitive management should be primarily with endovascular embolization

***Keywords:*** Hepatic artery pseudoaneurysm, hemobilia, upper gastrointetinal bleeding

***PP-489***

## *A rare disease: Collagenous gastritis*

**Nuray Uslu Kızılkan[1], Banu Oflaz Sönmez[2], Pınar Bulutay[3], Figen Gürakan[1]**

*[1]Department of Pediatric Gastroenterology, Koç University School of Medicine, İstanbul, Turkey*
*[2]Department of Pediatric Hematology and Oncology, Koç University School of Medicine, İstanbul, Turkey*
*[3]Department of Pathology, Koç University School of Medicine, İstanbul, Turkey*

***Introduction:*** Collagenous gastritis (CG) is a rare condition characterized by surface epithelial damage, subepithelial collagen deposition, and a lamina propria inflammatory infiltrate. Children present with severe anemia, nodular gastric mucosa, and isolated gastric disease; and adults present with chronic watery diarrhea that is associated with diffuse collagenous involvement of the gastrointestinal tract. Etiology, pathogenesis, and natural history are not well known.

***Case:*** Thirteen-year-old female patient presented with severe headache and severe iron deficiency anemia (hemoglobin:5g/dl, MCV:59, serum iron:13.09µg/dl, serum ferritin:2 ng/ml) without gastrointestinal system complaint. As she could not tolerate several different iron preparations orally, intravenous iron treatment was given. Inflammatory markers, celiac serology were normal, stool parasite and occult blood examination were negative. Esophagogastroduodenoscopic examination revealed mild nodularity and edema in the antrum. Pathology revealed normal duodenum, mild superficial inflammation in the antrum and *Helicobacter pylori*. In the gastric corpus CG was reported with regeneration and multifocal superficial epitheliai loss, subepithelial thick collagen band formation in the lamina propria confirmed by Masson trichrome staining, and the appearance of basket weave in this collagen band. Amyloid deposition was not observed. Colonoscopic examination was normal. The patient was diagnosed with CG and *Helicobacter pylori* gastritis. Antiparietal antibody was negative. He was treated for *Helicobacter pylori* gastritis. Proton pump and oral iron treatment was continued. As re-biopsy showed CG prednizolon was ordered. Last evaluation of the patient revealed iron deficiency without anemia, and third corpus biopsy was still consistent with collagenous gastritis without *Helicobacter pylori*.

***Conclusion:*** In cases of unexplained anemia, gastroduodenoscopic evaluation and biopsy is very important for the diagnosis of patients even for the ones without gastrointestinal symptoms. Information about optimal treatment and follow-up of rare cases of collagenous gastritis is insufficient.

***Keywords:*** Collagenous gastrit, childhood, anemia

---

***PP-490***

## *Case report: Small bowel obstruction secondary to incarcerated femoral hernia*

**Johaniya Dimaporo, Virgilio Bañez**

*Manila Doctors Hospital, Manila, Philippines*

Femoral hernia is a type of hernia which has high risk of incarceration and strangulation that can lead bowel obstruction. This is a case of a 74-year-old woman who sought consult due to increase in abdominal girth. Patient has no comorbidities and previous surgeries. Examination revealed one 3.0 cm x 3.0 cm, non-tender lump in the left inguinal area. Computerized tomography of the abdomen showed small bowel obstruction and left indirect inguinal hernia. Patient was referred to surgery and on intra-operation findings showed incarceration of proximal segment of ileum (250cm from the Ligament of Trietz) at the left femoral canal without signs of gangrenous bowel. Explore laparotomy done with proximal bowel decompression, reduction of femoral hernia and left femoral herniorrhaphy. Hernias should always be considered as one of the possible causes of gastrointestinal obstruction. There should be meticulous history taking and clinical examination as any delay in diagnosis will increase the risk of mortality and morbidity for the patient.

***Keywords:*** Small bowel obstruction, femoral hernia, incarcerated hernia

***PP-491***

## *The incidence of gastric cancer in patients with gastric intestinal metaplasia: A systematic review and meta-analysis*

Sravanthi Parasa

*Swedish Medical Center, USA*

***Background/Aims:*** The risk of Gastric cancer in patients with Gastric Intestinal Metaplasia (GIM) is unclear. The objective was to estimate the incidence of Gastric cancer (GC) in patients with GIM.

***Materials and Methods:*** An electronic database search was conducted in Pubmed/ Medline, EMBASE and Google Scholar from 1966 to 2018 including a bibliographic review of previous publications excluding abstracts and those not published in English, for prospective or retrospective studies of the incidence of GC in patients with GIM. Studies were independently reviewed by two individuals. Data on the number of patients with GIM, duration of follow-up, incident cases of GC, prospective or retrospective study were obtained. Data on the incidence of gastric cancer in 2017 was obtained from global burden of disease (reference: http://ihmeuw.org/4npo) to determine the rates of gastric cancer incidence. Data was sub classified based on the incidence of GC – <7, 7-14, >14 per 100,000 years. Study quality was assessed using Ottawa Newcastle Criteria. The primary outcome was the annual incidence of GC in patients with GIM per 100 person-years and the secondary outcome was pooled annual incidence rates stratified based on the incidence of GC in countries. The pooled rates were reported with 95% CI and $I^2$ for heterogeneity with p-value < 0.05 considered significant.

***Results:*** A total of 15 studies were included for final analysis which comprised of 81,552 patients and 457, 089 person years of follow-up. The mean age was 61.1 years and the mean follow-up duration was 5.2 years. The pooled annual incidence of GC among patients with GIM was 0.31 (95% CI: 0.21-0.45, $I^2$ – 92%) per 100 person years. When stratified by incidence of GC based on the study country of origin, the pooled annual incidence for <7, 7-14, > 14 gastric cases per person years was 0.12 (95% CI: 0.09-0.15), 0.31(95% CI: 0.25-0.38) and 0.81 (95% CI: 0.58-1.2) per 100 person years respectively with a statistically significant increase in the trend (p < 0.001).

***Conclusion:*** The incidence of GC in GIM patients is around 0.3 per 100 patients per year. The rate of progression of GIM to GC varies strikingly among countries based on the baseline incidence of GC with higher annual progression rate of GIM to GC in countries with higher baseline incidence of GC. Other additional risk factors could also be associated with increase in the risk of progression to GC apart from GIM which were not investigated in this study.

***Keywords:*** Gastric cancer

---

***PP-492***

## *Hospital admissions for liver cirrhosis in northern taiwan: single hospital experience*

Tin Tin Hlaing, Hwai-jeng Lin, Ming-yao Chen, Chia-shin Wuu, Sheng-tsai Lin, Yu-xin Lai, Ming-zhe Tay, Chung-ying Lee

*Taipei Medical University Shuang-ho Hospital, Taiwan*

***Background/Aims:*** Chronic liver disease including cirrhosis and hepatocellular carcinoma is currently the 10th leading cause of death in the Taiwan. In Taiwan, the leading causes of liver cirrhosis are hepatitis B virus, hepatitis C virus and alcohol misuse. We aimed to characterize hospital admissions for liver cirrhosis in our hospital during past decade.

***Materials and Methods:*** We analysed all hospital admissions of cirrhotic patients in Taipei Medical University Shuang-Ho hospital between 2013 and 2018. Cirrhosis was classified according to aetiology considering alcoholic liver disease (AH), chronic hepatitis B (CHB), chronic hepatitis C (CHC), autoimmune hepatitis (AIH) and unspecified cause (USC).

***Results:*** Among 1730 enrolled patients with 4103 admissions, 70.5% was male (91.6% AH, 70.1% CHB, 50.8% CHC, 70.0% CHB plus CHC, 25.0% AIH, 44.7% USC). The aetiologies of admitted cirrhosis were as follows: 30.5% AH, 29.9% CHB, 3.8% CHB plus AH; 17.0% CHC, 1.5% CHC plus AH, 1.9% CHB plus CHC, 2.2% AIH and 13.0% USC. The admissions rate of cirrhosis declined from 2.42% of total admission in 2014 to 1.76% in 2018. Average age at first admission were 54.7 years for alcoholic, 62.6 years for CHB, 68.9 years for CHC, 69.2 years for AIH, and 70.9 years for unspecified cause. Primary hepatic malignancy involved in 27.4% hepatocellular carcinoma, and 0.7% of cholangiocarcinoma. The average admission was 2.3 times with the range of 1 to 28 times within study period.

***Conclusion:*** We observed the decline in admissions of cirrhosis and the burden of hospitalized liver cirrhosis in our population was essentially attributable to viral hepatitis B, alcoholic liver disease and viral hepatitis C.

***Keywords:*** Cirrhosis, hospital admission, viral hepatitis

---

***PP-493***

## *Acute pancreatitis in childhood: A case report*

**Victor Fernando Yep Gamarra[1], Gustavo Vasquez-tirado[2], Augusto Aldave-herrera[3], Jorge Rojas-vera[4], Carlos Rodriguez-ulloa[5], Victor Lau-torres[6], Jean A Donet[7]**

*[1]Department of Gastroenterology, Regional Hospital of Trujillo-perú, Peru*
*[2] Antenor Orrego University School of Medicine, Peru*
*[3]National University of Trujillo-perú School of Medicine, Peru*
*[4] Sanchez Ferrer Clinic, Trujillo-perú*
*[5]Hospital Central De La Fuerza Aérea Del Perú, Lima, Peru*
*[6]Department of Surgery, Regional Hospital of Trujillo-perú, Peru*
*[7]University of California, San Francisco, USA*

Pancreatitis in childhood is rare but is being increasingly recognized, underlying etiologies differ greatly from those in adults, including traumas, drugs, multisystem diseases, infections and disease of biliary tract. We report a case of gallstones pancreatitis in children. This is an 11 year old female who presented with 1 day acute abdominal pain, nauseas and no bilious vomiting. There not was history of diarrhea, fever, cough, runny nose and trauma. On physical examination she was afebril, the abdomen was soft and mildly distended in the epigastrum region, with local tenderness. Labs: white cell count 14200, alanine aminotransferasa (ALT) of 25UI/L,aspartate aminotransferase (AST):20 UI/L,PCR 320, creatinine: 1mg/dl, total bilirubin 0,8mg/dl,serum amylase 5000 UI/L, serum Lipase of 700 IU/L, Lactatedeshidrogenase 250 UI/L. Abdominal ultrasound reveled gallbladder containing multiple small stones and no common bile dilatation. Her serum calcium level, viral hepatitis panel, lipid profile, and hemoglobin electroforesis were within normal level. DeBanto score was 0, Baltazar score was D, Balthazar computed tomography severity index score was 3. Abdominal Tomography reveled an abdominal diffuse enlargement of the pancreas, irregularities of contour and peripancreatic fluid (Figure1). She had transient organ failure with pulmonary insufficiency that improve with oxygen.She responded to conservative management whit intravenous fluid and analgesia. After 3 week she presented abdominal pain, nausea and bloating. CT scan showed a single fluid collection 7cm (Figure 2), after which she underwent laparoscopic cholecystectomy surgical drainage was done, patient don't presenting complications. Acute pancreatitis is rare in childhood, the incidence has is increased. In addition cause occasional death and significant morbidity. Mortality in children is more than adult and the severe complication are less than adult. The principal cause are viral infection, trauma,biliary tract disease that include cholelithiasis.Although gallstones and biliary disease may play a greater role than previously reported. Clinical manifestation is variable and is related of age, a high index of suspicion is necessary to establish diagnosis. Guidelines for classifying, diagnosing, and managing acute pancreatitis are frequently based on standards that are developed in adult patients but we have to develop guideline for children. Several score noon has been thoroughly validated for paediatric patients, DeBanto score is the only designed for children, although Balthazar computed tomography severity index score seen to be the better.

***Keywords:*** Pancreatitis, childhood, gallstone

**Figure 1.** Enlargement of the pancreas, irregularities of contour and large peripancreatic fluid collection.

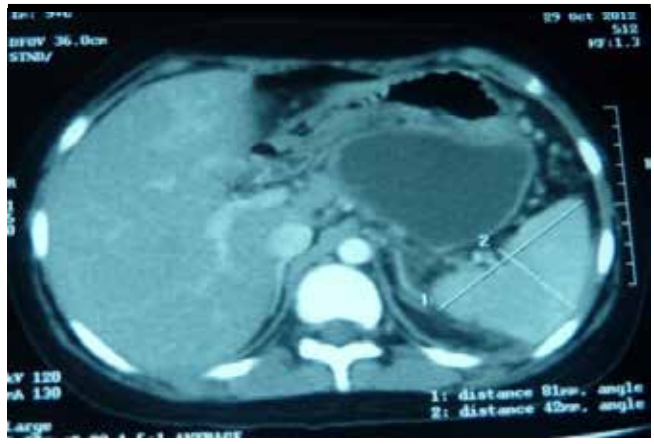


**Figure 2.** A single fluid collection that oppresses to the stomach.

***PP-494***

## *The diagnostic accuracy of noninvasive scores for the assessment of advanced fibrosis in biopsy-proven non-alcoholic fatty liver disease patients with normal serum transaminases*

**Eda Kaya[1], Alev Bakır[2], Fatih Eren[1,3], Yusuf Yılmaz[1,4]**

[1]Marmara University Institute of Gastroenterology, İstanbul, Turkey
[2]Department of Biostatics and Medical Informatics, Haliç University School of Medicine, İstanbul, Turkey
[3]Department of Medicalbiology, Marmara University School of Medicine, İstanbul, Turkey
[4]Department of Gastroenterology, Marmara University School of Medicine, İstanbul, Turkey

***Background/Aims:*** Non-alcoholic fatty liver diseases (NAFLD) is one of the major causes of abnormal liver function tests in clinical routine. However, use of liver function tests in clinical routine is limited due to the low diagnostic accuracy. Therefore, noninvasive scores are developed for estimation of hepatic fibrosis stage including various parameters in addition to transaminases. Here, we aimed to investigate the diagnostic performances of Fibrosis-4 (FIB-4) and NAFLD Fibrosis Score (NFS) in identification of advanced fibrosis comparing biopsy-proven NAFLD patients with normal and elevated serum transaminases. In addition, we also sought to find optimal cutoffs for our study patients with and without elevated liver enzymes, respectively.

***Materials and Methods:*** In this study, we retrospectively analysed the prospectively collected data of a total of 512 consecutive patients with biopsy-proven NAFLD. We compared patients with normal and elevated serum transaminases in terms of clinic, laboratory and histological characteristics and $p<0.005$ was considered statistically significant. FIB-4 scores of <1.3 and >2.67 or <1.45 and >3.25 indicated a low and high risk for advanced fibrosis, respectively. NFS scores of <-1.455 and >0.676 were used to assess a low and high risk for advanced fibrosis, respectively.

***Results:*** The general characteristics of the patients were presented and compared in Table 1. FIB-4 cutoffs of <1.3 and <1.45 for low risk of advanced fibrosis had a sensitivity of 64% and 49% in patients with elevated transaminases and 70% and 52% in patients with normal transaminases, respectively. The specificities for the cutoffs of >2.67 and >3.25 indicating high risk of advanced fibrosis were 98% and 99% in patients with elevated transaminases and 99% and 100% in patients with normal transaminases, respectively, with negative predictive values of (NPV) 0.840, 0.836, 0.806 and 0.792, respectively. The FIB-4 cutoff of >1.2 for patients with elevated transaminases (sensitivity: 74%, specificity: 70%) and >1.3 for patients with normal transaminases (sensitivity: 70%, specificity: 79%) showed best diagnostic performance in our population. With regard to NFS, we found similar results (Table 2).

***Conclusion***: FIB-4 and NFS have adequate clinical utility for first-line stratification of advanced fibrosis in both populations with normal and elevated transaminases.

---

***PP-495***

## *Superiority of capsocam plus in detecting early small bowel Crohn's lesions. Findings, outcome, retention rate in a single center retrospective study of more than 600 patients*

**Pachofszky Thomas, Holzmüller Philipp, Madl Christian**

*Ka Rudolfstiftung, Vienna, Austria*

***Background/Aims:*** Crohn's disease with only small bowel lesions is often a difficult problem to diagnose. The early diagnosis and a sufficient therapy are crucial for the prognosis of this disease. Over the last few years, radiology had a leading role in finding small bowel lesions, with the drawback of missing early mucosal injury. The aim of this single center retrospective study was to look if the 360° panoramic view capsule (CapsoCam Plus, CapsoVision, Saratoga, CA, USA) will find more lesions than endview systems (PillCam, Medtronics, Dublin, Ireland and MiroCam, IntroMedic, Seoul, Korea). We also looked at if sectional cross imaging or PillCam patency capsule (Medtronics, Dublin, Ireland) is necessary for patient safety.

***Materials and Methods:*** Included are 633 examinations for the indication of suspected crohn's disease or known crohn's disease with suspected lesions in the small bowel, done from 2003 to 2018 at the KA Rudolfstiftung, Vienna, Austria. We have used three different capsule systems CapsoCam, CapsoCam Plus (CapsoVision, Saratoga, CA, USA): 291; M2A (Given Imaging, Yoqneam, Israel), PillCam (Medtronics, Dublin, Ireland), MiroCam (IntroMedic, Seoul, Korea): 342. The evaluation for capsule endoscopy was after upper and lower GI-Endoscopy and an anamnesis in respect of pain as leading symptom. Radiology or patency capsule was not mandatory. A patency capsule was used in only 2 patients. Radiological examinations before capsule endoscopy were done in less than 15%.

***Results:*** In these 633 examinations, we found significant lesions in the small bowel in more than 36%. In an analysis for the 360° panoramic view system and the endview systems we can see a significant benefit for the CapsoCam Plus in finding relevant lesions (43,9% to 31,3% p-value 0,009127). Unsuspected retention happened in only 5 patients (0,79%), two of them need a surgical intervention (0,32%) because of a scarred stenosis (not diagnosed by cross sectional imaging). In 3 patients, the capsule was retrieved by enteroscopy.

***Conclusion:*** Capsule endoscopy is a safe procedure in patients with suspected or known crohn's disease, when we do a good anamnesis and look at worrisome symptoms. With this strategy we don't need cross sectional imaging or patency capsules before capsule endoscopy to reduce the risk of retention. The 360° panoramic view capsule shows a significant benefit in finding lesions. Because of this data, CapsoCam Plus should be used as the preferred capsule endoscope for the evaluation of small bowel crohn's disease.

***Keywords:*** CapsoCam Plus, capsule endoscopy in IBD, Crohn's disease

---

***PP-496***

## *Preventive and treatment intervention for hepatic encephalopathy: A systematic review of randomized controlled trials*

**Ferya Çelik, Hicran Bektaş**

*Akdeniz University School of Medicine, Antalya, Turkey*

***Background/Aims:*** Hepatic encephalopathy is a life-threatening, recurrent, reversible complication of liver cirrhosis. The aim of this systematic review is to determine the preventive and treatment intervention of hepatic encephalopathy.

***Materials and Methods:*** Literature review has been done in "Ulakbim Turkish National Database, Scopus, Pubmed, Cochrane Library, Science Direct, Web of Science, EBSCOhost, Medline, CINAHL" databases using the keywords "hepatic encephalopathy, liver cirrhosis, intervention, prophylaxis, treatment, prevention". As a result of the literatüre searching 23 randomized controlled studies were included in the systematic review.

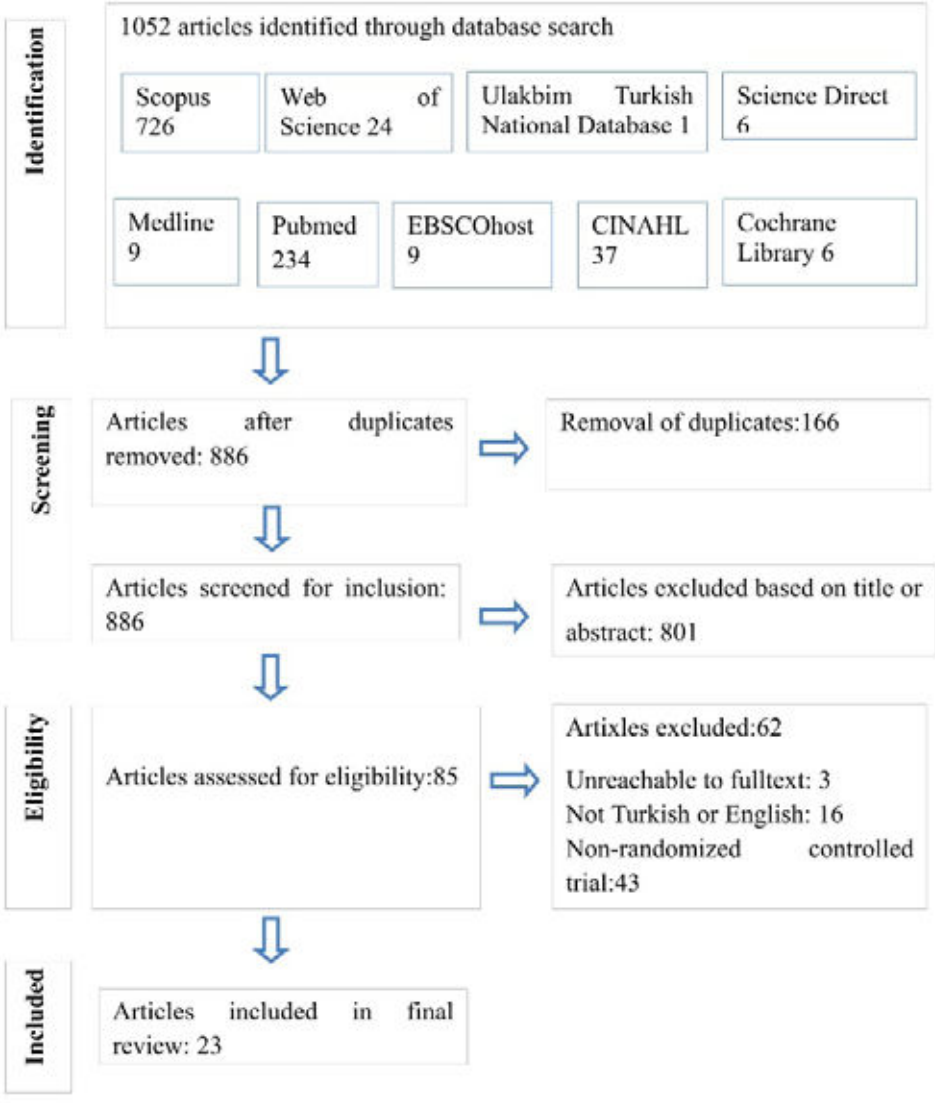



**Figure 1.** PRISMA flow diagram of the literature review process.

***Results:*** In most studies, Number Connection Tests A and B, Picture Completion Test, Digit Symbol Test, Critical Flicker Frequency Test, Line Tracing Test, Hepatic Encephalopathy Scoring Algorithm, West Haven Criteria were used to identify hepatic encephalopathy. The use of Lactulose, Rifaximin, L Ornithine L Aspartate and probiotics are among the preventive interventions for hepatic encephalopathy. There are pharmacological, nutritional and supportive therapies in the treatment of hepatic encephalopathy. Pharmacological interventions include Rifaximin, Lactulose, L Ornithine L Aspartate. Support treatments include antioxidants and

zinc, electrolyte solutions, probiotics, magnesium, potassium-phosphate-citrate complexes, branched-chain amino acids supplementation, acetyl-L-carnitine, Chiinese Herbal Medicine. These interventions have been found to be effective in preventing and treating hepatic encephalopathy. It can be seen in studies examined that although hepatic encephalopathy is a recurrent and life-threatening complication it can be identified by easy psychometric tests and can be treated by nutrition and pharmacological approaches. In the prevention and treatment of hepatic encephalopathy, it is important that the patient and family recognize the symptoms and know the therapeutic methods of hepatic encephalopathy. However, in the studies examined, it is seen that there are no interventions for the education of the patient and family to prevent and treatment hepatic encephalopathy.

***Conclusion:*** In the prevention and treatment of hepatic encephalopathy, importance should be given to the education of the patient and family along with pharmacological and nutritional interventions and a multidisciplinary team approach should be adopted.

***Keywords:*** Hepatic encephalopathy, prevention, treatment

---

***PP-497***

## *Infliximab anaphylaxis during the ulcerative colitis treatment of a child with Kabuki syndrome*

**Meltem Uğraş, Hülya Ercan Sarıçoban, Gökçe Eser**

*Department of Child Health and Pediatrics, Yeditepe University Hospital, İstanbul, Turkey*

Infliximab is a chimeric monoclonal IgG1 antibody and acts as an inhibitor molecule for TNF-α, a significiant cytokine that causes inflammation in inflammatory bowel diseases. It is produced by a recombinant cell lines that glycosylate with alpha-gal oligosaccharide. It was found that patients who has allergic reactions to monoclonal antibodies that manufactured in the alpha gal contained cell line also developed an allergic reaction to mammalian meats containing the same α-Gal unit due to cross-reaction. We present the first case report of a child with Kabuki Syndrome who developed anaphylaxis after administration of infliximab therapy and had mammalian meat allergy at the same time. 6-year-old girl with Kabuki syndrome was admitted to the hospital with abdominal pain and bloody stools. After colonoscopy, the patient was diagnosed as ulcerative colitis and treatment was started. The patient was unresponsive to steroid treatment and infliximab was started because her complaints persisted. When the third dose of infliximab was administered,the patient developed flushing, sweating, cyanosis on lips and nausea at the 5th minute of the infusion. The patient was thought to have developed anaphylactic reaction. The infusion was stopped and the patient was monitored. After adrenaline was administered, the patients complaints regressed. When the literature was examined, it was learned that there was a cross reaction between infliximab and alpha gal. mammalian meat products removed from patients diet. We performed prick-to-prick test with lamb meat and beef. Tesr result was found to be positive against raw lamb meat. The patient's alpha-gal spesific IgE test has been sent and the result is expected. Infliximab provides effective treatment in moderate to severe steroid-refractory ulcerative colitis. Several adverse events may occur during or after the intravenous administration of infliximab. The Patients who develop infliximab-related severe infusion reaction also have red meat allergy through sensitization to alpha-gal.

***Keywords:*** Infliximab, ulcerative, colitis,

---

***PP-498***

## *A case of intraoperative enteroscopy through enterotomy with "air trapping" technique for severe gastrointestinal bleeding*

**Victor Fernando Yep Gamarra[1], Augusto Aldave-herrera[2], Hector Calvo[2], Humberto Mariños[1], Jonner Pelaez[1], Miguel Villacorta[1], Jaime Balarezo-martinez[1], Pedro Delgado-guillena[3], Cristian Diaz-velez[4], Gustavo Vasquez-tirado[5], Jean A Donet[6]**

[1]*Department of Gastroenterology, Regional Hospital of Trujillo-perú, Peru*
[2]*National University of Trujillo-perú School of Medicine, Trujillo-Perú*
[3]*General Hospital of Granollers, Barcelona, Spain*
[4]*National Hospital Almanzor Aguinaga-essalud Chiclayo-Perú*
[5]*Antenor Orrego University School of Medicine, Trujillo-Perú*
[6]*University of California, San Francisco, USA*

Small bowel bleeding may represent a diagnostic challenge. Non-invasive tests detect the source of bleeding in majority of cases. Intra-operative enteroscopy is performed on those patients without an etiologic diagnosis after non-invasive testing or when bleeding is severe. We describe a 25 year-old male patient who presented with a 3-day history of melena, hemodynamically stability and a Hb of 15 g/dl. No significant medical or surgical history. No prior similar episodes. Denied NSAIDS or history of H. Pylori infection. Upper endoscopy and colonoscopy were unremarkable. Before, CTA and capsule endoscopy could be performed, patient acutely decompensated to hemodynamic unstability and a Hb of 7 g/dl requiring multiple blood transfusions. Patient was taking to the operating room for exploratory laparotomy. Blood was seen inside the small bowel lumen (more significant in the jejunum compared to distal ileum). An enterotomy was performed in the mid small bowel at 150 cm proximal to the ileocecal valve. A colonoscope was introduced to explore the small bowel in a segmentary fashion using the "Air trapping" technique. This consist in clamping with the fingers the bowel lumen proximally and distally to the evaluated segment to facilitate insuflation and inspection of the mucosa. One small ~ 3mm vascular lesion with stigmata of recent bleeding (nipple sign) was identified at ~ 100 cm from the Treitz angle(Figure 1). A hemostatic suture was placed without recurrence of bleeding. Intra-operative enteroscopy is an option for suspected severe small bowel bleeding. It can be anterograde through the mouth, retrograde through the anus or through a surgically-created enterotomy as it was in our case. More than one enterotomy can be done if necessary to facilitate endoscopic evaluation. Review of the literature reveals intra-operative enteroscopy can evaluate the totality of the small bowel in 57 to 100% of the cases, achieving an etiologic diagnosis in 80% of the cases. The most common finding is a vascular lesion followed by ulcers and tumors. Rebleeding occur in 12 to 50% of cases depending on the cause and the treatment applied. Potential complications of this technique include intestinal wall hematoma. Ileus, intestinal ischemia, mesenteric hemorrhage and perforation. Intra-operative enteroscopy is valuable for the etiologic diagnosis of small bowel bleeding allowing for endoscopic or surgical therapy.

***Keywords:*** Intra-operative enteroscopy, enterotomy, small bowel bleeding

**Figure 1.** One small ~ 3mm vascular lesion with stigmata of recent bleeding (nipple sign).

***PP-499***

## *24 hours PH-metry in children: Moroccan experience*

**Louly Hady, Serraj Ilham, Salihoun Mouna, Acharki Mohammed, Kabbaj Nawal**

*Efd-hge Department, Ibn Sina Hospital-Rabat, Morocco*

***Background/Aims:*** Ambulatory pH-metry has long been one of the main diagnostic tools used for the diagnosis of gastro-esophageal reflux disease (GERD) in adults and is also increasingly used in children. The aim of this study is to describe the clinical data of children, the indications and results of pH-metry in a Moroccan unit.

***Materials and Methods:*** Over seven years, 84 children underwent pH-metry in our unit. We analyzed their clinical data and their examination results.

***Results:*** 84 children underwent pH-metry were included.42 (50%) are boys and 42(50%) are girls with sex ratio=1; The mean age is 10.01 years (2-17 years).65 pH-metry (77,3%) were realized in children with respiratory symptoms. Other indications are represented by assessment of GERD in 9 patients, vomiting in 5 patients and ear-nose throat symptoms in 3 patients. The mean recording time was 23 hours. 29patients (34,5%) were diagnosed with GERD and 55 patients (65,5%) had a normal pH-metry. For patients with GERD, the mean time with reflux was 95,4minutes and average EAO was 5,8%. It was noted a diurnal and nocturnal GERD in 11 cases (38%), a diurnal GERD in 10 cases (34,5%) and a nocturnal GERD in 8 cases (27,5%). The respiratory symptoms were the main indication of pH-metry represented in 62 children (73,8%). 34,4% had a pathological GERD with a mean De Meester index of 36,3.

***Conclusion:*** Ambulatory esophageal pH monitoring is the "gold standard" for diagnosis of acid GERD. In our series, pH-metry assess the diagnosis of pathological GERD in a third of children with respiratory symptoms

***Keywords:*** 24 hours PH metry, GERD, children

---

***PP-500***

## *Prognostic value of serum C reactive protein, white blood cells and ammonia in patients with liver cirrhosis: Single center experience in Bosnia and Herzegovina*

**Renata Tamburic, Tanja Glamocanin, Ljubica Jovandic, Jelena Petkovic-dabic, Stevan Trbojevic**

*Department of Gastroenterohepatology, University Clinical Centre of The Republic of Srpska*

***Background/Aims:*** Liver cirrhosis (LC) is the late stage of hepatic fibrosis. Infections are common among patients with LC. They occur more often in cirrhotic patient groups than in the general population and result in higher mortality. To investigate the relationship between c reactive protein (CRP), white blood cells (WBC) and ammonia as well as the risk factors mortality.

***Materials and Methods:*** Prospective data were collected from hospitalized cirrhotic patients in the Department of Gastro-enterology, University Clinical centre of the Republic of Srpska between January 2018 and January 2019. By univariate binary logistic regression, we examined whether the parameters: CRP, WBC and ammonia affect the outcome of treatment. The outcome of the treatment was used as a dependent variable coded as a dummy variable (1=death, 0=no death). The contribution of each individual independent variable in the explanation of the fatal outcome was assessed.

***Results:*** 83 patients have undergone assessment. Median age 60 years, 78,8% male and 21,2% female. The average CRP value on the sample was Me=22,60. The value of this parameter for the group of patients with fatal outcome was

Me=43.55, and for the group of patients without fatal outcome Me=9.00. This difference is statistically significant (p <0.001). The average leukocyte count is statistically significantly different for the two groups (p <0.01). The value measured in the fatal death group is Me=9.36, in the non-lethal outcome Me=5.20, and on the total Me=5.93 sample. The average platelet count in patients with fatal outcome is Me=81,00, in the group of patients without fatal outcome Me=93,00, this difference is statistically significant (p <0,05). Ammonia has a statistically significantly higher value in the group of patients with fatal outcome (Me=66.75) compared to the non-lethal outcome (Me=30.00) p <0.05. The average value on the sample is Me=42.60.

***Conclusion:*** CRP measurements may be useful to confirm the existence of sepsis and inflammation and can help clinicians make decisions when the patients with cirrhosis do not improve. Today, infections represent a prevalent and complex health problem in patients with decompensated cirrhosis, increasing significantly the risk of mortality.

***Keywords:*** Cirrhosis, C reactiv protein, mortality

---

***PP-501***

## *Prevalence and predictors of advanced liver fibrosis in a non-alcoholic diabetic population*

**Sara Abouelhak, Mohamed Tahiri Joutei Hassani, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Ibn Rochd Hospital Center University, Casablanca, Morocco*

***Background/Aims:*** Non alcoholic fatty liver disease (NAFLD) is commonly associated with type 2 diabetes mellitus, affecting more than 70% of people with diabetes. It is a benign condition that, in the absence of appropriate management, can be the source of significant morbidity and mortality. The aim of our work is to determine the prevalence of NAFLD, in type 2 diabetics and to analyze the factors predicting the severity of liver damage in these patients.

***Materials and Methods:*** Retrospective and analytical study, conducted in collaboration with the department of endocrinology, collating type 2 diabetics seen in consultations. Anamnestic data (age, comorbidities), clinical (weight, height, BMI) and biological data (complete blood count: CBC, Alanine transaminase: ALT, Aspartate transaminase: AST, lipid profile) were collected in all patients. The severity of liver injury was assessed by the Fib4 score. Statistical analysis was performed using SPSS 25 software.

***Results:*** 281 diabetic patients included, 215 women and 66 men so a sex ratio of 3.25. The mean age was 54.15±13.45 years old. The mean duration of diabetes evolution was 10.5 ± 8.5 years. 67.3% of patients were on insulin and 45.9% on Metformin. Only 4 men (1.4%) were alcoholics (<20g/d). 109 patients (38.8%) had arterial hypertension treated mainly with angiotensin 2 receptor agonists. A BMI ≥ 30 Kg / $m^2$ was found in 122 patients (43.4%). Biologically, the ALT average was 22.01 ± 18.59 IU / L and AST 21.33 ± 16.80 IU / L. Hyper-triglyceridemia (>1.50 g/L) in 105 patients or 37.4% and hypo-HDLemia (<0.40 g / L) in 63 patients or 22.4%. The average platelet count was 262 247.33 +/-77397.41 e / $mm^3$. The average fib4 of the patients was 1.05 ± 0.72. 227 (80.8%) patients had a Fib4 <1.45. 46 patients had a Fib4 between 1.45 and 3.25. And only 8 patients (2.8%) had advanced fibrosis with Fib4> 3.25. In multivariate analysis, the independent factors associated with advanced liver fibrosis are the duration of diabetes progression, elevated ASAT, hypo-HDLemia and hypercholesterolemia. On the other hand, the young age, the Metformin intake and the low level of the transaminases are factors independently linked to the absence of fibrosis

***Conclusion:*** Advanced fibrosis was found in only 2.8% of non-alcoholic diabetics. The duration of diabetes evolution, dyslipidemia and a high ASAT level are predictive factors for advanced fibrosis.

***Keywords:*** Non alcoholic fatty liver disease (NAFLD), fibrosis, metabolic syndrome

***PP-502***

## *Study on nonalcoholic fatty liver diseases and its relationship with metabolic syndrome- report from a tertiary centre, Bangladesh*

**Mohd Harun Or Rashid Rashid Mohammad Mahbubur Rahman Khan Khan[1], Md.khalilur Rahman Rahman[1], Humaira Rashid Rashid[2], Mamun Al Mahtab Mahtab [3]**

*[1]Rajshahi Medical College, Rajshahi, Bangladesh*
*[2]Department Of Pharmacy,brac University, Dhaka, Bangladesh*
*[3]Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh*

***Background/Aims:*** Metabolic syndrome describes the co-occurrence of central adiposity dysglycaemia, hypertention, lipid abnormalities and other metabolic changes. This multi-system condition has adverse effect on many organs, the liver being one of them. Non-alcoholic fatty liver disease appears to be the hepatic manifestation of metabolic syndrome, and is a major contributor to the burben of chronic liver disease world-wide. This study is done to find out the relation between NAFLD and metabolic Syndrome.

***Materials and Methods:*** This is an observational cross sectional study was conducted in the Department of Internal medicine and Hepatology, Rajshahi Medical College, Rajshahi from January 2018 to March 2019.250 patients age above 20 years with metabolic syndrome were included. Male patients 185 and female patients 65. All patients were interviewed by structured questionnaire. Statistical analysis was carried out by using the Statistical Package for the Social Sciences (SPSS) software version 23.0 for windows (SPSS Inc, Chicago, ILLinois, USA). Continuous data are expressed as the mean + standard deviation (SD) and categorical variables are expressed as percentages.Person correlation coefficient test and unpaired t-test was used. For all statistical tests, p-value is less than 0.05 was considered as statistically significant.

***Results:*** Among 250 respondents a total of 80 cases ultrasonographically diagnosed as NAFLD were included in the study and showed 59(73.7%), 20(25.0%), and 1(1.3%) f cases had grade I, II, and III fatty liver respectively. On Physical examination mean BMI was 27±4.39 kg/m$^2$. Mean diastolic blood pressure was 92.87±6.25 and mean systolic blood pressure (mmHg) 132.0±18.17.The differance was significant for fasting plasma glucose,diastolic blood pressure,triglycerides, high density lipoprotein and waist circumference ($p<0.05$).

***Conclusion:*** From the study,it can be concluded that symtoms and sign of NAFLD are non-specific and occur later in the course of the disease hence the physician should have a high index of suspicion in order to detect NAFLD early in the course of the disease.Early detection would help not only in modifying the disease course and delaying its complication.

***Keywords:*** NAFLD, metabolic syndrome, chronic liver disease

---

***PP-503***

## *Interrelation between ulcerative colitis and hepatitis B virus infection*

**Svetlana Turcan, Alina Jucov**

*State University of Medicine and Pharmacy, Moldova*

***Background/Aims:*** The influence of viral hepatitis B infection on activity and evolution of ulcerative colitis (UC) is studied insufficiently, but this information is imported, especially in hepatitis B endemic regions. The aim of the research was to evaluate the influence of hepatitis B virus infection on clinical, paraclinical and evolutionary features of ulcerative colitis.

***Materials and Methods:*** The prospective study comprised 230 patients with UC diagnosed using the international criteria recommended by ECCO, including mandatory endoscopic and histological evaluation. All patients were screened for viral B infection (HBsAg, HBeAg and anti-HBcor). In patients with at least one positive marker, viremia was examined by quantitative or qualitative DNA-HBV analysis.

***Results:*** HBV markers were determined very common in patients with UC-48 cases (20.9%), i.e. every fifth patient had contact with HBV infection. HBeAg-negative chronic hepatitis B (HBsAg+, anti-HBcor+, DNA HBV+) was detected in 11 cases (4.8%), while HBV infection (HBsAg-negative, anti-HBcor+, ADN HBV-) in 37 cases (16,1%). The comparative analisis has led to the hypothesis that the association of ulcerative colitis with hepatitis B virus infection aggravates colitis evolution, which has been confirmed by: a higher number of patients with severe mucosal damage ($p<0.05$) and subtotal or total colon involvement ($p<0.05$); with continuous progressive evolution, with greater UC activity (reflected in higher ESR and C-reactive protein level, $p<0.05$) in case of associated HBV-infection.

***Conclusion:*** In the Republic of Moldova-an endemic region for viral hepatitis, HBV infection in patients with ulcerative colitis is very common (20.9%) and 4.8% of patients have active hepatitis B. HBV infection probably has a negative impact on UC characteristics and evolution.

***Keywords:*** Ulcerative colitis, hepatitis B virus infection, liver disease

---

***PP-504***

## *Effect of acute stress on gastroesophageal reflux disease and functional heartburn*

**Irmak Polat[1], Sezgi Kıpçak[2], Ali Saffet Gönül[3], Serhat Bor[2]**

*[1]Department of Psychiatry, İstanbul University School of Medicine, İstanbul, Turkey*
*[2]Division Of Gastroenterology, Ege University School of Medicine Ege Reflux Study Group, Izmir, Turkey*
*[3]Department of Psychiatry, Ege University School of Medicine, İzmir, Turkey*

***Background/Aims:*** The role of stress in gastroesophageal reflux disease (GERD) patients, especially in a seperate group of patients classified as functional heartburn (FH) is often emphasized in clinical practise with limited data. We have shown that patients with FH have a higher level of psychiatric co-morbidities. Our aim was to evaluate the changes on reflux symptoms and episodes during the impedance-pH (MII-pH) monitoring by generating acute stress via various negative emotions.

***Materials and Methods:*** 27 people participated in the study (15 females). After the MII-pH catheter was inserted, subjects ate a refluxogenic test meal and after 1 hour they watched a neutral film 50 minutes in a dark room with headphone. Subjects ate the same food on the second day at the same time. After 1 hour, they watched negative emotional stimulating short films for 50 minutes. In addition, Galvanic Skin Reactions were measured to determine the level of stress during the movie. After the movies, all patients filled visual analogue score regarding their negative feelings, pain sensations.

***Results:*** Patients were classified into the phenotypes according to upper gastrointestinal endoscopy and 24-h MII-pH studies; 10 erosive GERD, 7 nonerosive GERD, 10 functional heartburn. 24-hour MII-pH test was pathologic in total of 16 patients. GSR results obtained from 16 patients, 13 of patients showed stress. There was a correlation between pain and total negative emotions scores with Pearson Correlation test especially those with functional heartburn were found to significantly increase pH <4% ($p=0.017$) and DeMeester scores ($p=0.025$) when they were exposed to films with negative emotions.

***Conclusion:*** Generating acute stress in GERD cases did not cause a significant change in symptoms. However, although there is normal acid exposure in functional heartburn cases, reflux time increased during acute stress. This increase, in combine with hypersensitivity of the esophagus, may contribute to the symptom generation.

***Keywords:*** Acute stress, functional heartburn, gastroesophageal reflux disease

***PP-505***

## *Gastroduodenal stromal tumors: About 14 cases*

**Najlae Benjelloun, Nadia Benzzoubeir, Hicham El Bacha, Maroua Saidi Idrissi, Tarik Gharbi, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-gastro Enterology and Proctology Service "Medecine B", Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** The gastrointestinal stromal tumors (GIST) are the most common mesenchymal tumors of the digestive tract. The aim of this study is to analyze the pathogenic, diagnostic and therapeutic particularities of those tumors, through a serie of cases.

***Materials and methods:*** This is a retrospective and descriptive study over a period of 14 years from January 2005 to January 2019, based on the revealing symptomatology, the interpretation of morphological examinations, anatomopathological data and analysis of therapeutic methods and their evolution. Our patients underwent upper endoscopy, histopathological examination and Immunochemistry. They also had an abdominal ultrasound and abdominal CT-scan.

***Results:*** 14 of gastroduodenal stromal tumors has been reported, including 11 gastric and 3 duodenal. The age of our patients ranged between 42 and 80 years. The sex ratio was 1.3 with a male predominance. The circumstances of discovery were dominated by abdominal pain (11 cases), gastrointestinal hemorrhage (7 cases) and abdominal mass (7 cases). The diagnosis of certainty was obtained by an immunohistochemical study of per-endoscopic biopsies and operative specimens. 10 patients underwent surgical resection adapted to the tumor localization and its extension and only 3 patients benefited from medical treatment with imatinib. 5 patients were lost to follow-up, 9 were followed-up; the evolution was favorable in 5 cases and 4 died.

***Conclusion:*** In the most cases, the endoscopy allows the diagnosis of GIST, in association with immunohistochemical study. Surgical resection remains the only curative treatment for localized stromal tumors. In the case of locally advanced tumor, metastatic, or in case of recurrence, the first-line treatment is imatinib.

***Keywords:*** Gastroduodenal stromal tumor, immunohistochemical study, surgical resection

---

***PP-506***

## *Autoimmune hepatitis in adults (About 21 cases)*

**Ghita Kella Bennani, Imane Benelbarhdadi, Camelia Berhili, Mohammed Borahma, Nawal Lagdali, Fatimazohra Ajana**

*Department of Hepatogastroenterology, Ibn Sina University Hospital, Mohammed V University, Medicine "C", Rabat, Morocco*

***Background/Aims:*** Autoimmune hepatitis is a chronic inflammatory condition of the liver. It is relatively rare, Diagnosis is based on the presence of hypergammaglobulinemia, specific autoantibodies, typical histological lesions and the absence of other causes. The purpose of our study is to determine the clinical, para-clinical and therapeutic aspects of our patients with HAI.

***Materials and Methods:*** The study is carried out on 21 consecutive cases of HAI recruited in 8 years (January 2011 to March 2019), all our patients are followed in a specialized consultation of HAI.

***Results:*** There were 18 women and 3 men with a sex ratio of 0.16 and a mean age of 39.4 years. 38.8% of our patients were asymptomatic on admission. The antinuclear antibody was positive at a level greater than 1/40 in 77.8%, the anti-smooth muscle antibody was positive in 50% of the cases, the anti-ALS antibody in 5.6% and the anti-mitochondrial antibody type 2 anti M2 was positive in 16.7%.The biopsy puncture of the liver was performed in 81%, an interface hepatitis was found in 100%, inflammatory necrotic lesion in 14.5% and rosette appearance in 7.1%, biliary signs suggestive of primary biliary chol-

angitis in 28.6% and there is one case of hepatocellular carcinoma. 64.7% had a probable diagnostic score and 35.3% had a certain score.83.3% of our treated patients were put on combined treatment,16.7% only with corticosteroids and 33.1% were put under UDCA. The response to treatment was total in 66.7% and partial in 33.3% with a decline of 18 months.

***Conclusion:*** The diagnosis of autoimmune hepatitis is based on a set of clinical, biological, immunological and histological criteria and the exclusion of other causes. The treatment has a remarkable clinical-biological efficacy.

***Keywords:*** Autoimmune hepatitis, diagnostic score

---

***PP-507***

## *Mild stress affects gastrointestinal motility depending on the nature of the stressor. A radiographic study*

**Ana Bagués, Yolanda López-Tofiño, Carlos Gálvez, Raquel Abalo**

*Rey Juan Carlos University, Madrid, Spain*

***Background/Aims:*** Functional gastrointestinal (GI) disorders (FGID), like dyspepsia and irritable bowel syndrome, have different possible etiologic factors. In the last few years, the excessive activation of the hypothalamus-pituitary-adrenal axis, due to stress response, has been shown to clearly have a role in the etiology of different FGID. Stress has been shown to affect GI motility, although the methodologies used are varied and most preclinical studies use highly intense stressful stimuli, or prolonged stressful protocols. At present, little is known about how moderate stressful stimuli can affect GI motility. Non-invasive radiographic techniques may be useful for this. Therefore, our aim was to study the effect of 2 different stressful stimuli: cold-restraint (CR) and forced swim (FS), applied acutely and subchronically, on GI motility.

***Materials and Methods:*** Male Wistar rats (280-300g), were submitted to FS for 20 min or CR stress for 40 min, during 1 (acute) or 4 (subchronic) consecutive days. To study GI motility, radiographic methods were used. Radiographs were taken (0-24 h) after barium intragastric administration on the 1$^{st}$ (acute) or 4$^{th}$ day (subchronic) of stress. The stress session was applied 1 h after barium administration.

***Results:*** Acute FS or CR tended to slow down gastric and small intestinal emptying, but these different stimuli had opposite effects in the caecum: CR tended to accelerate barium transit and fecal formation whilst FS tended to slow it down. When the stimuli were applied subchronically, GI motility tended to normalize.

***Conclusion:*** Mild stress alters GI motility in different ways depending on the nature of the stressor and its duration. Exposure to mild stressors should be considered as contributing factors to different FGID.

***Keywords:*** Stress, functional bowel disease, radiographic evaluation

---

***PP-508***

## *Profile of inflammatory bowel disease associated with primary sclerosing cholangitis*

**Tarik Gharbi, Hicham El Bacha, Nadia Benzzoubeir, Salma Douihi Touzani, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-gastro-enterology and Proctology Service Medicine "B", Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Crohn's disease (CD) and ulcerative colitis (UC) may be associated with chronic inflammatory manifestations that affect other organs. While some of these events evolve alongside the digestive disease, others evolve on their own.

Sometimes they can even precede by several months the appearance of intestinal manifestations. Liver damage associated with inflammatory bowel disease (IBD) are frequent and varied. The most common is hepatic steatosis and the most specific is primary sclerosing cholangitis (PSC). The aim of our work is to study the prevalence of primary sclerosing cholangitis in IBD and to determine the characteristics of IBD in patients with PSC.

***Materials and Methods:*** This is a descriptive mono-centric retrospective study spanning 14 years from January 2005 to January 2017 conducted within our department, including 634 patients with chronic inflammatory bowel disease. All our patients underwent endoscopic examination, liver function tests (LFTS) and biliary-MRI.

***Results:*** Of the 634 IBDs, 13 had abnormal LFTS (cholestasis and/or cytolysis) (3%), of which 3 had PSC (0.5%). The average age at the time of the PSC discovery was 35.3 years. The sex ratio M / F was 2. It was a UC in one case and CD in two others. The UC was distal, quiescent, the PSC diagnosed after 20 years. The evolution of the UC was good under mesalazine, that of the PSC was marked by the occurrence of a cholangiocarcinoma of the low bile duct, which after a cephalic duodenopancreatectomy was fatal for the patient. CD was ileocolic in one case and ileocolonic with perineal lesions in the other case; stricturing behavior in the first case with surgery after 7 years of evolution and penetrating in the other requiring combotherapy to control the activity of the disease but without the need for surgery. The mean time to the diagnosis of PSC in the two patients followed for CD was 4.5 years. The evolution of the PSC was good with normalization of the liver tests under ursodeoxycholic acid in both cases. No cases of dysplasia or colonic degeneration was noticed in our cohort.

***Conclusion:*** PSC is the most specific and common hepatobiliary manifestation of IBD after hepatic steatosis. It's diagnosis was facilitated by the biliary-MRI and its democratization. The profile of PSC-associated IBD and its prognostic factors could not be determined because of the small number of cases in our cohort. The different studies and recent physiopathological knowledge have led to a consensual specific surveillance.

***Keywords:*** Inflammatory bowel disease, primary sclerosing cholangitis

---

***PP-509***

## *Refractory ulcerative proctitis: Endoscopic pattern and therapeutic management*

**Souhayla Belabess, Hicham El Bacha, Nadia Benzzoubeir, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-gastroenterology and Proctology Service, Medicine "B", Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Refractory ulcerative proctitis is a particular form of chronic inflammatory bowel disease (IBD) limited to the rectum. In most cases, it is due to ulcerative colitis. The term refractory does not refer to the natural history of the disease, but to the response to treatment. The term is therefore used in cases of failure or intolerance to treatment strategies. The objective of our study is to determine the epidemiological aspects, the place of endoscopy and of the different treatment strategies for this form of IBD.

***Materials and methods:*** We performed a retrospective study over a period of 13 years (January 2006-April 2019). We included all patients with refractory ulcerative proctitis. Collected data were age, sex, origin, profession, medical and toxic antecedents, digestive symptoms, type of IBD, endoscopic findings, and the therapeutic management.

***Results:*** 34 cases had refractory ulcerative proctitis among 898 cases of IBD.The average age was 42.3 years (26-60 years old), with a sex ratio of 1.125 (18F/16M). 27 patients were from urban areas. 26 patients were non-smokers and one patient had a family history of IBD. Bloody diarrhea was the most common symptom affecting 30 patients. 28 patients had ulcerative colitis, and 6 had Crohns disease while no cases of indeterminate colitis were diagnosed. Endoscopy found superficial ulcerations in 24 cases, a blistering inflammatory appearance in 11 cases, a bleeding mucosa in two cases, and a congested mucosa in one case. 16 patients were treated with steroids, 9 patients with immunosuppressants drugs in association with steroids, and 6 patients with immunosuppressants drugs alone, while three patients with TNFα inhibitors. The evolution was good in 29 patients. 4 patients required surgery.

***Conclusion:*** Endoscopy is useful in assessing the disease severity and controlling treatment response. A prompt step-up strategy using TNFα inhibitors is required to manage refractory ulcerative proctitis. Surgery remains a therapeutic option for some cases.

***Keywords:*** IBD, refractory ulcerative proctitis, treatment

---

***PP-510***

## *Serum cystatin C (CYS C) as biomarker for predicting renal dysfunction and mortality in patients of cirrhosis with acute decompensation*

**Gaurav Padia, Ajay Kumar, Amarender Puri, Sanjeev Sachdeva**

*Govind Ballabh Pant Institute of Post Graduate Medical Training and Research, New Delhi, India*

***Background/Aims:*** Serum Cystatin C (Cys C) as biomarker for predicting renal dysfunction and mortality in patients of cirrhosis with acute decompensation.

***Materials and Methods:*** Consecutive cirrhotic patients with AD admitted to gastroenterology ward or OPD of Department of Gastroenterology, GIPMER were evaluated. Patients with baseline renal dysfunction (RD) was excluded. Baseline Cys C estimation was done by Automated analyser 3 using immunoturbidimetry. Patients were followed for 3 months. Outcomes evaluated were mortality, development of ACLF or RD. ROC analysis was done to find baseline Cys C levels for predicting RD and mortality.

***Results:*** Of total 104 patients evaluated, 88 were included. Mean age was 44 ±11 years, males were 69%. Clinical presentation was ascites n=71(82%), jaundice n=42(52%), gastrointestinal bleeding n=33(38%) and hepatic encephalopathy n=15(18%). Spontaneous bacterial peritonitis in 11 pts (n=11/69, 16%). Etiology of cirrhosis was Alcoholic liver disease (ALD) (43%), HCV (17%), HBV (13.6%), Cryptogenic (9.1%), NASH (9%), autoimmune hepatitis (3.4%), HBV-HCV co-infection (2.3%), Budd-Chiari Syndrome (1%), Primary biliary cholangitis (1%). Overall 21 patients died during follow-up (24%) and 31 pts had ACLF during initial admission (35%), and 8 pts developed ACLF during follow-up (n=8/58, 14%), RD occurred in 21 pts (24%). Odd Ratio of Cys C for predicting RD was 10.5(2.17;50.9) (AUROC 0.83[0.72,0.93])(Sensitivity 83%, Specificity 70%). Odd Ratio of Cys C for predicting mortality was 2.59 (0.76;8.82) (AUROC 0.70[0.56,0.84]).

***Conclusion:*** Baseline CysC is good independent predictor of renal dysfunction in patients with acutely decompensated liver cirrhosis. It helps in early identification of at-risk patients and may improve clinical management.

***Keywords:*** Cirrhosis, decompensation, cystatin C

---

***PP-511***

## *Surgical rates for Crohn's disease: A monocentric cross section study from Turkey*

**Buğu Bulat[1], Ece Bilgiç[1], Kübra Köken[1], Zeynep Ellik[2], Cihangir Akyol[3], Murat Törüner[2], Arif İrfan Soykan[2], Hülya Çetinkaya[2]**

*[1]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of General Surgery, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Despite the medical treatment remains the first choice for most inflammatory bowel disease (IBD) patients, up to 70% of patients with Crohns disease (CD) will require surgical treatment during their lifetime.

***Materials and Methods:*** We conducted a monocentric retrospective study including all inpatients with a previously confirmed CD followed in Ankara University Ibni Sina Hospital Gastroenterology Clinic between June 2016 and March 2018. Epidemiologic and clinical data were collected through the electronic medical records.

***Results:*** We studied 213 patients with CD: 100 (46%) females and 113 (54%) males (The sex ratio F/M=0.88) The mean age was 40 ± 13.8 and the mean IBD duration was 6.7 ± 5.5 years. Due to endoscopic imaging performed in our center, 73% of these patients had ileocolonic involvement, 16% of them had only ileal involvement and solely colonic involvement observed in 9% of the patients. 75% of patients received mesalazine and 60% of them were treated with azathioprine. Patients received the following biologics in their treatment regimen: Infliximab (40%), Adalimumab (25%), Certolizumab pegol (7%), Vedolizumab (8%). A total of 86 (40%) patients underwent surgery (32 females, 54 males; the sex ratio F/M: 0.59), 32% of these patients had required more than one surgical procedure. 34% of 86 patients had surgeries due to perianal fistulas. 12% of patients had perianal/intra-abdominal abscess. 9% of patients had total colectomy and 27% of patients had right hemicolectomy. 23% of patients had ileocecal resection.

***Conclusion:*** Our findings indicate that even though the frequent use of new biologic agents in CD, surgery still have a crucial role in treatment.

***Keywords:*** Crohns disease, surgery

---

***PP-512***

## *Efficacy of enhanced liver fibrosis score and transient elastography for assessment of the severity of fibrosis in chronic hepatitis C*

**Manish Kumar, Amarender Singh Puri, Ajay Kumar**

*Govind Ballabh Pant Institute of Post Graduate Medical Training and Research, New Delhi, India*

***Background/Aims:*** Genotype 3 chronic hepatitis C (CHC) patients with advanced fibrosis or cirrhosis need a longer duration of therapy. Enhanced liver fibrosis (ELF) score and transient electrography (TE) are noninvasive methods for ruling out cirrhosis, have not been compared in Indian CHC patients. The aim is to compare TE and ELF for ruling out significant fibrosis (≥ F2) CHC patients.

***Materials and Methods:*** Consecutive outdoor CHC patients from Sept. 2016 to May 2018 were included. Patients with decompensated cirrhosis, BMI ≥30 kg/m2 or additional etiology for the liver disease were excluded. The liver biopsy was used as a gold standard; The METAVIR scoring system was used for grading fibrosis in liver biopsy. The TE by using fibroscan 430 mini and ELF were done on the same day in fasting state.

***Results:*** 50 patients were included, mean age was 35.02±10.2 years. Median ELF score and TE score for patients were 9.46 and 5.95 kPa respectively. Significant fibrosis (≥ F2) in biopsy, fibroscan and ELF score were 19(38%), 14(28%) and 47(94%) patients respectively. The area under the receiver operator characteristic curve (AUROC) of TE was 0.860[95% confidence interval(CI), 0.74-0.97], with the sensitivity and specificity of 79% and 86% for significant fibrosis and AUROC for ELF, was 0.619[95% CI, 0.45-0.78], with the sensitivity and specificity of 74% and 42% respectively. Using the proposed cutoffs, ELF overestimated fibrosis in 56%(28/50) of cases. We found a statistically significant difference when comparing the AUROC of TE and ELF for diagnosing significant fibrosis (≥ F2), (p=0.001).

***Conclusion:*** TE, as compared to ELF, is a better noninvasive method for diagnosing significant fibrosis (≥ F2) in CHC patients. However, the revised cutoff ELF score in CHC patients need to be established to improve its performance.

***Keywords:*** CHC-chroniuc hepatitis C, ELF-enhanced liver fibrosis, TE-transient elastography

***PP-513***

## *Opportunistic colorectal cancer screening – How often did we find pathology in clinical practice?*

**Popescu Alina[1], Bogdan Miutescu[1], Ioan Sporea[1], Raluca Lupusoru[1], Camelia Gianina Foncea[1], Radu Cotrau[1], Diana Gherhardt[1], Tudor Voicu Moga[1], Renata Fofiu[1], Greta Dancu[1], Roxana Sirli[1], Mirela Danila[1], Dorina Chisevescu[1], Dragos Suseanu[1], Simona Bataga[2]**

*[1]Department of Gastroenterology and Hepatology, Victor Babes University of Medicine and Pharmacy Timisoara, Romania*
*[2]Medical 1 Department, University of Medicine, Pharmacy, Science and Technology of Targu Mures, Romania*

***Background/Aims:*** The aim of this study was to assess which was the outcome of opportunistic colorectal cancer screening by colonoscopy (asymptomatic subjects in whom we performed a colonoscopy for colorectal cancer screening) in regard to neoplastic pathology (polyps or colorectal cancer).

***Materials and Methods:*** The study group included the colonoscopies performed in 3 endoscopy centers from Timisoara and Targu-Mures in asymptomatic subjects in whom the indication was colorectal cancer screening. The colonoscopies performed in patients with previous history of polyps and colorectal cancer were excluded. The prevalence of polyps, significant polyps (polyp ≥1cm) and colorectal cancer were assessed in all groups and in different age groups.

***Results:*** 4663 colonoscopies were performed in asymptomatic subjects in the 3 endoscopy centers between January 2008-December 2018; from these 96% (4480 cases) were total colonoscopies. The statistic analysis was performed only on the total colonoscopies. The 4480 total colonoscopies performed in asymptomatic subjects led to the diagnosis of polyps in 35.3% (1580/4480) of cases. Significant polyps were found in only 7.6% (341/4480) of cases and colorectal cancer in 2.8% of cases (128/4480). Most often we found neoplastic pathology in the 60-69 years and >70 years age groups: 39.1% (274/700) polyps, 10% (72/700) significant polyps, 3.4% (24/700) cancers and 34.4% (176/511) polyps, 9% (46/511) significant polyps, 5% (26/511) cancers respectively.

***Conclusion:*** In the studied group the detection rate of significant pathology (significant polyps and cancer) at colonoscopy in asymptomatic subjects was 10%, which confirms the need for colorectal cancer screening.

***Keywords:*** Colonoscopy, screening, cancer

| Age | Polyps | Significant polyps | Cancer |
|---|---|---|---|
| 40-44 years | 13% (30/230) | 1.3% (3/230) | 2.1% (5/230) |
| 45-49 years | 30.3% (115/379) | 5% (19/379) | 1.8% (7/379) |
| 50-54 years | 29.8% (187/627) | 4.9% (31/627) | 1.4% (9/6270) |
| 55-59 years | 36.9% (291/788) | 6.8%(54/788) | 2.6% (21/788) |
| 60-64 years | 35.8% (343/958) | 8.5% (82/958) | 2.4% (23/958) |
| 65-69 years | 39.1% (274/700) | 10% (72/700) | 3.4% (24/700) |
| 70-75 years | 34.4% (176/511) | 9% (46/511) | 5% (26/511) |
| Total | 32.1% (1416/4193) | 7.3% (307/4193) | 2.7% (115/4193) |

***PP-514***

## *Immunoglobulin G4-related disease presented as collagenous gastritis*

**Arzu Tiftikçi[1], Bahattin Çiçek[1], Aysun Bozbaş[2], Suha Göksel[3], Nurdan Tozun[1]**

*[1]Department of Gastroenterology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*
*[2]Department of Gastroenterology, Acıbadem Altunizade Hospital, İstanbul, Turkey*
*[3]Department of Pathology, Acıbadem Maslak Hospital, İstanbul, Turkey*

Several reports on immunoglobulin (Ig) related disease with gastrointestinal involvement have been published, although this entity has not been fully established clinicopathologically. It is a systemic inflammatory condition characterized by abnormal increases in serum Ig G4 level and in the number of Ig G4-positive cells in affected tissues. Here we want to present a case we previously had followed as collagenous gastritis who has Ig G4 related disease, his complaint get control with immunosuppressive treatment.Forty years old male patient come to gastroenterology polyclinic with the complaint of chronic diarrhea 6 years ago. He had lost weight of almost 6-7 kilograms/ in six months. He has been taking replacement of Vitamine B12 since two years, nothing else remarkable in his medical history. In his upper gis endoscopy there were corpus dominant hyperemia and nodularity, stomach was stiff, not expanding well. In his colonoscopy, ileocolonic examination is normal. Histopathological examinations in endoscopic biopsies are relevant with autoimmune gastritis, collagenous gastritis, lymphocytic duodenitis, collagenous colitis. Also, gastritis profunda cystica findings are detected and there is intraepithelial lymphocytosis in duodenum biopsy. In endoscopic ultrasonography, between mucosa and submucosa, multiple millimetric cysts are detected. Antibodies against celiac disease were all negative and HLA DQ 2 and 8 were negative either. In the patients treatment, firstly, meselamine preparations then budesonide treatment is taken. Response so well and azathioprine treatment are added. In 3 years follow-up, as a single 2 mg/kg/day azathioprine tablet treatment, the patient was better, but lost-to follow up and quite all the medication, come again with the same complaint. Here we re-do GİS mucosal evaluation, in his those evaluation there were lots of Ig G4 cells in gastric mucosa especially and his total Ig G4 level in serum was higher than normal. Re-starting of azathioprine gets him well. Diarrhea stopped and he gain weight. One and a half year later in his gastroscopic evaluation corpus mucosal appearance and gastric expansion was better as histopathological examination. He is still following by our department without any complaint. Although Immunoglobulin G4-related disease entity has not been fully established yet, in collagenous gastritis patients we suggets to evaluate this disease also.

***Keywords:*** Immunoglobulin G4, collagenous gastritis, immunosuppresion

---

***PP-515***

## *Management a patient with large polyp in descending colon*

**Widodo Budi, Sugihartono Titong, Adi Pangestu**

*Division of Gastroentero-hepatology, Department of Internal Medicine, Universitas Airlangga-dr. Soetomo General Academic Hospital Surabaya School of Medicine, Indonesia*

***Introduction:*** Polyp in colon ussually asymptomatic but may ulcerate and bleed, polyp with very large size can cause cramps, abdominal pain and intestinal obstruction. Most polyps are discovered during colonoscopy. Colonic polyps are highly prevalent in the general population (especially with increasing age), they confer an important predisposition to colon cancer and are therefore removed when detected.

***Case:*** A 68 yo man with abdominal bloating, sometimes cramps and vomiting since 6 month ago, relieved after flatus and defecation with frequency of defecation every 2-3 days and normal consistency. No history of bloody stool or loss of body weight. No history of cancer in his family. We found normal vital sign, and abdominal distended with normal bowel sound. Hemoglobin 12.5 g/dl, leucocyte 9,800 cell/mm$^3$, thrombocyte 245,000 cell/mm$^3$, fecal calprotectin 256 µg/g,

$M_2$PK 20.5 U/ml. Plain abdominal X-ray was normal. Colonoscopy revealed large pedunculate polyp in descending colon. We perform snare polypectomy with endoloop placement. The polypectomy was successful without bleeding, and the histopathology result was adenoma polyp. The second colonoscopic that underwent after 6 and 12 month post-polypectomy showed normal results.

***Conclusion:*** Adenomatous polyps are neoplastic polyps and more common in men. Adenomas is dysplastic and thus have malignant potential. The removal of large polyps during endoscopy raise a risk of the procedure and the possibility of inadequate polypectomy. Repeat colonoscopy may be advised in 3-12 months if the adequacy of polyp removal is a matter of substantial doubt.

***Keywords:*** Adenoma polyp, polypectomy

---

***PP-516***

## *Multidrug-resistant bacteria in cirrhotic patients with urinary tract infections*

Dzmitry Haurylenka

*The Republican Research Centre for Radiation Medicine and Human Ecology, Belarus*

***Background/Aims:*** Bacterial infections are among the most important complications of end-stage liver disease. Recent investigations suggest that the prevalence of infections caused by multidrug-resistant bacteria (MDR) is increasing in cirrhosis. Urinary tract infections (UTI) in cirrhosis are usually asymptomatic. We aimed to assess the rate of MDR-bacteria in hospitalized cirrhotic patients with UTI.

***Materials and Methods:*** This was a retrospective study of 151 patients with cirrhosis in Department of Gastroenterology (between 2015 and 2017). Cirrhosis was clinically and/or histologically confirmed. The types of infections were defined according to conventional criteria. MDR-bacteria were defined as strains resistant to at least three of the main antibiotic families including beta-lactam antibiotics.

***Results:*** In our study 151 patients with decompensated cirrhosis were enrolled, 67 patients (44.4%; 95%CI: 36.3–52.7%) had various infections, from which urinary tract infections (UTI, n=31), pneumonia (n=24) and SBP (n=8) were the most frequent. Characteristics of the patients with infections were: median age was 52 (IQR 41–59) years; male 39%; median Child-Pugh score 10 (IQR 9–11). Mostly alcohol induced cirrhosis (55%). The culture-positive samples were found in 33 cases from 27 patients. Gram-positive cocci (73%) were the most common causative bacteria in nosocomial infections such as bacteremia/sepsis and SBP. UTI were caused by *Enterobacteriaceae's* family (75%) mainly. From 16 uropathogens 5 were considered to be MDR-strains. Isolated MDR-uropathogens were the following: *E. coli (n=2), P. agglomerans, Acinetobacter spp., E. faecalis.* On background of UTI caused by MDR-bacteria were diagnosed SBP (n=1) caused by *S. aureus* and bacteremia (n=3) caused by *S. aureus, S. epidermidis, E. coli* during current hospitalization. The rate of MDR-bacteria was 31.3% (95%CI: 11.0-58.7%). At the same time among bacteria which caused UTI were susceptible to quinolones 93%.

***Conclusion:*** We identified a high rate of MDR-bacteria in UTI (31.3% 95%CI: 11.0-58.7%) in our unit. Cases of MDR-UTI were combined with other severe bacterial complications (SBP, bacteremia). The current management of infections in cirrhotic patients group should be correct according to the results of microbiological monitoring in local unit.

***Keywords:*** Cirrhosis, multidrug-resistant bacteria

***PP-517***

## *Efficacy of Vonoprazan in preventing NSAID-associated ulcer recurrence: A meta-analysis of randomized controlled trials*

**Dennis Martin Castro, Timothy Bren Phoa, Clarel Camille Ng**

*University of Santo Tomas Hospital, Metro Manila, Philippines*

***Background/Aims:*** Vonoprazan is a novel potassium-competitive acid blocking agent and is used in the management of gastric and duodenal ulcers. Patients on long-term NSAID therapy are prone to develop ulcer recurrence. We aim to perform a systematic review and meta-analysis for the comparison of the effects of vonoprazan and proton pump inhibitors (PPIs) in NSAID-associated ulcer recurrence in randomized controlled trials (RCTs).

***Materials and Methods:*** A systematic and comprehensive search was performed using MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials (CENTRAL), Google Scholar, and clinical trial registries, for studies published up to December 2018. Only randomized clinical trials were included. This systematic review and meta-analysis will be performed according to the protocol recommended by the Cochrane Collaboration and reported according to the preferred reporting items for systematic reviews and meta-analysis (PRISMA) guidelines. All statistical analyses will be conducted using RevMan 5.3.

***Results:*** There were 2 studies identified with a total of 1217 participants. Our statistical analysis show that there were no significant difference between vonoprazan 10 mg (OR – 0.45 CI (0.19-1.06); p=0.07; I2=6%), and vonoprazan 20 mg (OR-0.59 CI(0.26-1.30); p=0.19; I2=0%) compared to lansoprazole 15 mg in reducing ulcer recurrence but the data favors vonoprazan groups. There was no significant difference in vonoprazan 10 mg (OR-0.33 CI(0.10-1.12); p=0.07; I2=48%) in reduction of bleeding occurrence, but vonoprazan 20mg (OR-0.24 CI(0.06-0.98); p=0.05; I2=19%) significantly reduced bleeding occurrence compared to lansoprazole.

***Conclusion:*** Vonoprazan (10 mg and 20 mg lansoprazole) was as effective as lansoprazole in preventing NSAID-associated ulcer recurrence. Vonoprazan 20 mg is more effective than lansoprazole in preventing occurrence of bleeding.

***Keywords:*** Vonoprazan, NSAID, ulcer recurrence, ulcers

---

***PP-518***

## *Acute tubular necrosis in cirrhotic patients who die with hepatorenal syndrome*

**Dzmitry Haurylenka, Natalya Silivonchik**

*Belorussian Medical Academy of Postgraduate Education, Minsk, Belarus*

***Background/Aims:*** In decompensated cirrhosis increase in serum creatinine may be caused structural or functional of kidney injury. We aimed to investigate the frequency of acute tubular necrosis (ATN) in hospitalized patients with decompensated cirrhosis who died with hepatorenal syndrome.

***Materials and Methods:*** This was a retrospective study of 142 hospitalized cirrhotic patients (City Hospital's medical records). All of them had died of cirrhosis complications from 2008 to 2010. In hospitalized patients AKI was defined according to AKIN criteria (2011).

***Results:*** Total 142 patients with histologically confirmed cirrhosis were included (male 68%). Median age was 53 year (range 28-75). Mostly alcohol induced cirrhosis. ATN at autopsy among 142 patients was found in 70 patients (49.3%; 95%CI: 40.8-57.8). Among 142 hospitalized patients antemortem conditions were follow: 53 meet criteria of type 1 HRS (37.3%; 95%CI: 29.4-45.3) and 11

meet criteria of type 2 HRS (7.8%; 95%CI: 3.9-13.4). In group with ATN 46 patients meet criteria HRS (65.7%, 95% CI: 53.4-76.7). In fact, it is interpretation of serum creatinine increase in the absence of morphological examination of kidneys. Frequency of variceal bleeding was higher in patients without ATN compared to patients with ATN (41.4% vs 58.3%, p=0.044). Median length of stay of the ATN group was higher than in the group without ATN: 7 (IQR 2–12) vs. 4 (1–10) days, respectively (p=0.044). Infectious complications associated with ATN among hospitalized patients – OR=5.3 (95%CI: 2.5-10.9; p<0.001).

***Conclusion:*** ATN as a form of acute kidney injury is common in critically ill cirrhotic patients. In or study 65.7% (95% CI: 53.4-76.7) patients with cirrhosis who meet criteria of HRS, was found ATN.

***Keywords:*** Acute tubular necrosis, cirrhosis

---

***PP-519***

## *What lies beneath-a rare source of gastrointestinal bleeding: Case reports on Brunner's gland adenoma and its endoscopic findings*

**Dennis Martin Castro, Engelbert Simon Perillo, Guinevere Ang**

*University of Santo Tomas Hospital, Metro Manila, Philippines*

***Introduction:*** Brunner's gland hamartoma are benign rare small intestinal tumors. They have very low malignant potential, but may present as gastrointestinal bleeding, or obstruction. Prompt and proper recognition of these lesions will enable clinicians to render appropriate diagnostic tools and intervention.

***Case 1:*** A 33/M with anemia/melena. Upper gastrointestinal endoscopy revealed a pedunculated polyp at the duodenal bulb. Endoscopic ultrasound(EUS) revealed a 5.4x3.7cm hypoechoic lesion arising from the first layer of the wall of the D1-D2 junction. Polypectomy was done using snare and endoloop with hemoclips were deployed for hemostasis. Follow-up endoscopy showed only duodenitis.

***Case 2:*** 52/M with melena with submucosal mass. Endoscopy showed a submucosal duodenal mass at the D1-D2 junction. EUS showed a 3.9x1.9cm hyperechoic lesion arising from the submucosa. A CT scan showed a duodenal mass. Surgery was done for removal of the mass. Post-operative course of the patient was unremarkable with no recurrence of bleeding.

***Case 3:*** 49/F with melena. Endoscopy showed a duodenal mass. CT scan showed heterogeneously enhancing mass measuring 3.2x2.7x3.1cm in the duodenum. a repeat endoscopy showed a large pedunculated polyp measuring 3.5cm at the D1-D2 junction. Polypectomy with hot snare and endoloop was done.

***Conclusion:*** The advances in technology in endoscopic imaging and interventions aid clinicians in early diagnosis and identification of Burnner's gland hamartomas and offer less invasive therapeutic interventions if indicated. We recommend that with better identification of these lesions that guidelines be in place to aid in the appropriate management of these lesions.

***Keywords:*** Case report, Burnner's gland hamartoma, Brunner's gland adenoma

---

***PP-520***

## *Patients with celiac disease are at high risk of metabolic syndrome and fatty liver*

**Ashish Agarwal, Alka Singh, Vipin Gupta, Wajiha Mehtab, Namrata Singh, Vineet Ahuja, Govind Makharia**

*All India Institute of Medical Sciences, New Delhi, India*

***Background/Aims:*** Gluten free diet(GFD) is known to have excess of fat and simple sugars and hence puts patients with celiac disease(CeD) at risk of metabolic complications including metabolic syndrome (MS) and fatty liver. We assessed prevalence of MS in two cohorts of patients with CeD.

***Materials and Methods:*** Study was done in two groups. In group 1, 54 treatment naïve patients with CeD were recruited and were put on GFD. They were reassessed after one year of GFD. In group 2, 130 patients with CeD who were already on GFD for more than 1 year were recruited. They all were assessed for anthropometric characteristics, metabolic parameters and fatty liver. MS was defined as per consensus definition for Asian Indians. Presence of fatty liver was defined as Controlled Attenuation parameter (CAP) value >263 decibels by Fibroscan.

***Results:*** In group 1, of the 54 treatment naïve patients with CeD, 5 (11.2%) had MS before GFD. Of them 44 returned after one year of GFD and 9 (18.2%) had MS. Amongst individual components of MS, fasting hyperglycemia altered more often (11.9% before vs. 30.9% after; p 0.039) in them. The number of patients having fatty liver increased from 6 patients (14.3%) at baseline to 13 (29.5%) after 1 year of GFD (p=0.002). In group 2 including 130 patients CeD on GFD for a median duration of 4 years, 30/114(26.3%) and 30/124 (24.2%) patients had MS and fatty liver, respectively

***Conclusion:*** Patients with CeD are at higher risk of developing MS and fatty liver with initiation of GFD, which increases further with duration of GFD. Patients with CeD on GFD should be assessed for nutritional and metabolic features at regular interval. They should be counselled about balanced diet and physical activity.

***Keywords:*** Celiac disease, metabolic syndrome, fatty liver

---

***PP-521***

## *All-cause and cause-specific mortality in chronic hepatitis B individuals: Findings of golestan cohort study*

**Nazgol Motamed-gorji, Hossein Poustchi, Maryam Sharafkhah, Layli Eslami, Amaneh Shayanrad, Sanam Hariri, Reza Malekzadeh**

*Liver and Pancreatobiliary Disease Research Center, Digestive Diseases Research Institute, Iran*

***Background/Aims:*** Chronic hepatitis B (CHB) is considered the most prevalent cause of cirrhosis in Iran; however, mortality rate and top death causes of CHB patients are not well-clarified. Therefore, this study aimed to investigate all-cause and cause-specific mortality among CHB patients of a large population-based Iranian cohort.

***Materials and Methods:*** Golestan Cohort Study population consisted of 50,045 individuals aged 50-75 years, who were recruited during 2004-2008 and followed annually ever since. The latest followup update was performed in February 2019. In the current study, CHB was defined as having positive HBsAg at baseline, while all-cause mortality was considered as the primary outcome. Mortality rates were evaluated using Cox proportional hazard regression models. Population Attributable Fraction was calculated for estimating the contribution of CHB to all-cause and cause-specific mortalities in total population.

***Results:*** Overall, there were 7354 deaths during a median followup of 12 years, with 613 deaths in CHB patients. The top five causes of death were similar among HBsAg positive (CHB) and negative (healthy) individuals; however, liver cancer deaths and non-cancer liver deaths were more prevalent among CHB patients. In the univariate cox proportional hazard model, CHB patients had a significantly higher all-cause (adjusted Hazard ratio=1.23, 95% CI: 1.13-1.33) and liver-related morality (aHR=6.43; 4.62-8.86) compared to healthy individuals. The full-adjusted model indicated significantly higher risk of liver cancer (aHR=15.35; 8.11-29.05) mortality among male CHB patients, but not in female counterparts (p for interaction=0.006). The risk of non-liver non-cancer mortalities were similar in both groups. Approximately, 27.3% of the overall liver mortality was attributed to the effect of CHB in the cohort population.

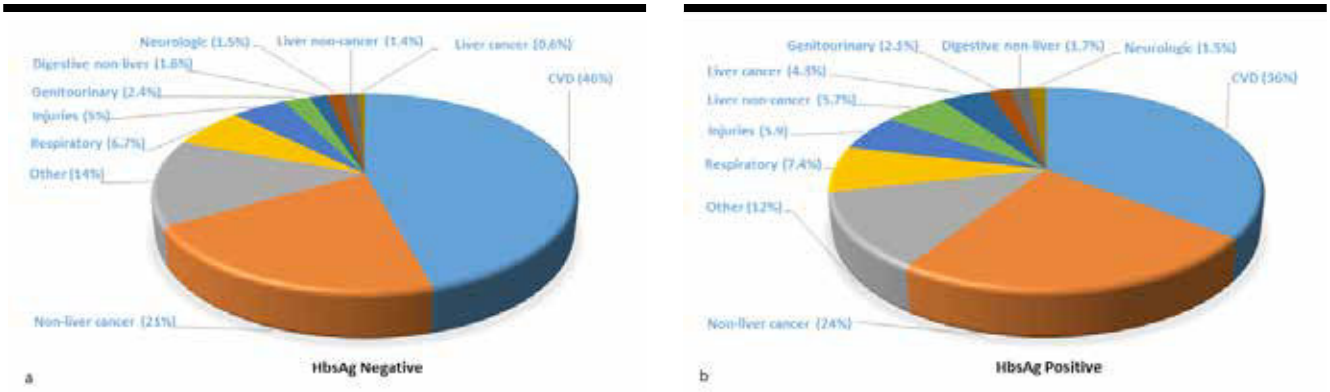



**Figure 1.** The top 10 death causes among participants of Golasten Cohort Study (GCS), according to HBsAg status of the participants. a: HBsAg negative, b: HBsAg positive

***Conclusion:*** CHB is associated with a significant preventable risk of mortality in both genders. These findings signify the importance of diligent followup in HBsAg positive individuals, particularly male patients.

***Keywords:*** Chronic hepatitis B, HBsAg, golestan cohort study, mortality

***Table 1.*** All-cause and cause-specific mortality in participant of Golestan Cohort Study (n=50,045) according to HBsAg status

| | Number and mortality rate per 100,000 Person-Year | | | | | | |
|---|---|---|---|---|---|---|---|
| | HBsAg+ | | HBsAg- | | Total | | |
| Causes of death | n* | MR** | n | MR | n | MR | ide Hazard Ratio (HR) |
| All Causes | 613 | 1621.65 | 6741 | 1318.87 | 7354 | 1339.72 | 1.23 (1.13-1.33) |
| · liver | 58 | 153.43 | 122 | 23.87 | 180 | 32.79 | 6.43 (4.62-8.86) |
| Ø Cancer | 25 | 66.14 | 36 | 7.04 | 61 | 11.11 | 9.39 (5.4-16.08) |
| Ø Non-caner | 33 | 87.3 | 86 | 16.83 | 119 | 21.68 | 5.19 (3.36-7.83) |
| · Non-liver | 522 | 1380.91 | 6164 | 1205.98 | 6686 | 1218.03 | 1.14 (1.04-1.25) |
| Ø Cancer | 137 | 362.42 | 1318 | 257.87 | 1455 | 265.07 | 1.4 (1.17-1.68) |
| Ø Non-cancer | 385 | 18.49 | 4846 | 948.12 | 5231 | 952.96 | 1.07 (0.96-1.19) |
| o CVD | 207 | 547.6 | 2872 | 561.91 | 3079 | 560.92 | 0.97 (0.84-1.12) |
| o Digestive | 10 | 26.45 | 104 | 20.35 | 114 | 20.77 | 1.3 (0.6-2.5) |
| o Respiratory | 48 | 126.98 | 451 | 88.24 | 499 | 90.91 | 1.44 (1.04-1.94) |
| o Genitourinary | 12 | 31.75 | 154 | 30.13 | 166 | 30.24 | 1.05 (0.53-1.89) |
| o Neurological | 9 | 23.81 | 96 | 18.78 | 105 | 19.13 | 1.27 (0.56-2.51) |
| o Injury | 34 | 89.94 | 314 | 61.43 | 348 | 63.4 | 1.46 (1-2.09) |
| o Other | 70 | 185.18 | 885 | 173.15 | 955 | 173.98 | 1.07 (0.83-1.36) |

*: Number, **: Mortality rate

***Table 2.*** Risk of all-cause and cause-specific mortalities according to gender

| | Hazard ratio (HR) | | | | |
|---|---|---|---|---|---|
| | Adjusted Model I[a] | | Adjusted Model II[b] | | Total Population attributable fraction (PAF)* (%) |
| Causes of death | Female | Male | Female | Male | |
| All Causes | 1.14 (0.99-1.31) | 1.25 (1.12-1.38) | 1.07 (0.93-1.23) | 1.22 (1.1-1.35) | 1.29 (0.06 to 1.98) |
| · liver | 3.58 (1.92-6.66) | 7.56 (5.17-11.04) | 3.55 (1.9-6.64) | 7.67 (5.23-11.24) | 27.35 (19.54 to 34.39) |
| Ø Cancer | 0.87 (0.12-6.49) | 15.68 (8.32-29.53) | 0.83 (0.11-6.18) | 15.35 (8.11-29.05) | 36.71 (21.81 to 48.77) |
| Ø Non-cancer | 5.00 (2.55-9.87) | 4.83 (2.92-8.01) | 5.06 (2.58-9.96) | 4.96 (2.98-8.26) | 22.56 (13.3 to 30.83) |
| · Non-liver | 1.09 (0.93-1.27) | 1.14 (1.02-1.27) | 1.02 (0.87-1.19) | 1.11 (0.99-1.24) | 0.69 (-0.02 to 1.4) |
| Ø Cancer | 1.27 (0.93-1.73) | 1.41 (1.14-1.75) | 1.22 (0.89-1.66) | 1.33 (1.07-1.65) | 2.35 (0.69 to 4) |
| Ø Non-cancer | 1.04 (0.87-1.24) | 1.06 (0.93-1.21) | 0.96 (0.8-1.15) | 1.05 (0.92-1.19) | 0.22 (-0.55 to 0.99) |
| o CVD | 1.03 (0.82-1.29) | 0.92 (0.76-1.09) | 0.96 (0.76-1.2) | 0.92 (0.77-1.1) | -0.36 (-1.3 to 0.6) |
| o Digestive | 1.74 (0.69-4.36) | 1.02 (0.41-2.55) | 1.66 (0.66-4.18) | 0.98 (0.39-2.45) | 1.43 (-4.36 to 6.9) |
| o Respiratory | 1.48 (0.89-2.46) | 1.42 (0.98-2.04) | 1.44 (0.86-2.4) | 1.32 (0.91-1.91) | 2.44 (-0.46 to 5.26) |
| o Genitourinary | 0.78 (0.28-2.12) | 1.4 (0.67-2.92) | 0.72 (0.26-1.96) | 1.41 (0.67-2.95) | 0.35 (-4 to 4.51) |
| o Neurological | 1.14 (0.35-3.66) | 1.42 (0.61-3.31) | 1.03 (0.32-3.32) | 1.38 (0.59-3.24) | 1.66 (-4.5 to 7.46) |
| o Injury | 1.16 (0.54-2.49) | 1.33 (0.89-1.98) | 0.99 (0.43-2.27) | 1.31 (0.87-1.95) | 2.28 (-1.19 to 5.64) |
| o Other | 0.85 (0.54-1.33) | 1.19 (0.89-1.59) | 0.78 (0.5-1.23) | 1.16 (0.87-1.55) | 0.23 (-1.58 to 0.2) |

a: Adjusted for age, and stratified by gender

b: Adjusted for Model I in addition to ethnicity, wealth score, marital status, education, residential area, alcohol consumption, smoking status, opium consumption, physical activity and BMI

*: PAF was calculated according to the Model II (full-adjusted model)

***PP-522***

## *A case of pNET invisible in portal phase of CT*

**Vedat Kılıç[1], Rıza Salper Ökten[2], Meral Akdoğan[1], Sabite Kaçar[1], Hale Gökcan[1], Mustafa Özdemir[2]**

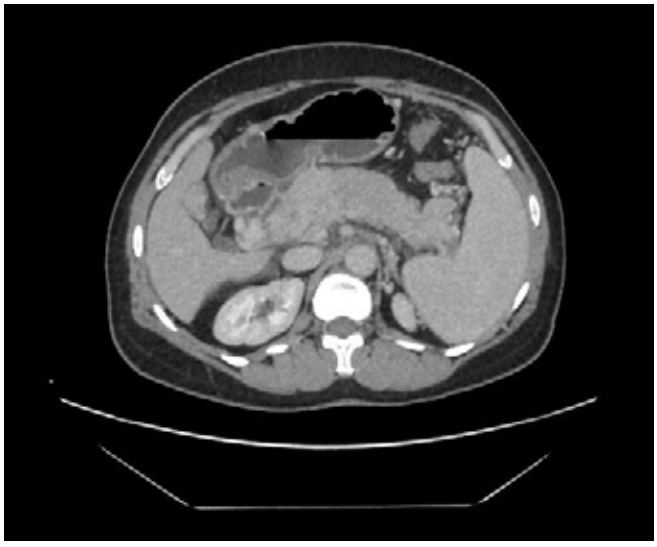
[1]Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey
[2]Department of Radiology, Ankara City Hospital, Ankara, Turkey

***Introduction:*** Pancreatic neuroendocrine tumors (pNET) are rarely seen. Recent evidence suggests that pNETs originate from pluripotent pancreatic stem cells of the ductal/acinar system. PNETs are classified as functioning or non-functioning based on the secretion of hormones. Non-functioning pNETs account for up to 60% of the cases. pNETs typically appear as well-defined hypervascular masses in dynamic radiologic imaging. It is a finding indicative of their rich capillary network. Here we present a case with extensive involvement of the pancreas and portal vein thrombosis detected in the arterial phase that is rare for non-functioning pNETs.

***Case:*** A 47-year-old woman with a history of Hashimoto's thyroiditis admitted to outpatient clinic with 9-month history of intermittent abdominal pain radiating to the mid-epigastrium. She was referred to department of gastroenterology for further evaluation and treatment of a suspected pancreatic mass. The pancreas had a diffuse volume, borders of the mass and portal pathology weren't clear on axial portal phase tomography imaging. However, diffuse heterogeneous pancreas and thrombus within the portal vein was detected clearly in arterial phase tomography imaging. Pathological involvement extending to the pancreas and portal system was detected on PET CT (GA-68 *DOTATATE*) imaging. Patological biopsy revealed neuroendocrine tumor of pancreas and mitosis was seen on ten majör magnifications. The KI67 index was 4%. With these findings, our diagnose was NET G2.

***Conclusion:*** Non-functioning pNETs are usually observed in advanced stages. Large tumors are heterogeneous and may show variable amounts of cystic necrotic degeneration and calcification. Although wide spread pancreatic involvement is rare, it should be kept in mind. Pathologic findings of pNETs may be observed in arterial phase of CT imaging even not seen in the portal phase.

***Keywords:*** Neuroendocrine tumor, pancreatic cancer, pancreatic neuroendocrine tumor, computed tomography, CT, PET/CT imaging



***PP-523***

## *Endoscopic treatment of acute cholangitis: Department experience*

**Mohamed Borahma, Oussama Kharmach, Imane Benelbarhdad, Ftima Zahra Ajana**

*Department of Gastroenterology C, Mohammed The Vth University, Ibn Sina Hospital, Rabat, Morocco*

***Background/Aims:*** Acute cholangitis is an inflammation of the bile ducts and bile. It is usually due to an infection of the bile by bacteria ascending from the gastrointestinal tract following an acute obstruction of the bile ducts. This obstruction is most commonly caused by biliary stones (90%), the other causes may be tumoral (pancreatic head tumour, bile duct tumour or ampulloma), parasitic or biliary malformation. An accurate and early diagnosis of cholangitis allows for an emergency treatment. The purpose of the work was to evaluate the efficacy of endoscopic treatment represented by ERCP (endoscopic retrograde cholangiopancreatograpgy) in the treatment of cholangitis.

***Materials and Methods:*** This was a retrospective study, over a period of 14 years [January 2005 – May 2019], including all patients diagnosed and/or hospitalized for an acute cholangitis according to the Tokyo guidelines 2018.

***Results:*** Over a 14-year period, 76 patients were enrolled, including 53 women and 23 men. The average age was 55 [22- 90]. The lithiasic nature of the obstacle was the main cause, with choledocholithiasis in 53 patients, a tumoral cause was found in 12 patients, hydatid cyst of the liver ruptured in the bile ducts in 9 cases, injury of the bile ducts post-cholecystectomy in one patient and a fibrous odditis in another patient. The timing of endoscopic drainage after choalngitis onset ranged from 24 hours to two weeks. A sphincterotomy was performed in 94.7% of cases associated with endoscopic papillary large-balloon dilation in four patients to facilitate clearance of large stones. The sphincterotomy is always followed by usual procedures (balloon and/or bascket) to clear biliary ducts from stones or parasitic materials (membranes and/or vesicles). The stent placement was done in 16 patients, 7 of whom had choledocholithiasis with incomplete common bile duct stones clearance, in 9 patients with biliopancreatic tumors and Among patients with ruptured hydatid cyst of the liver, one patient required the placement of a plastic stent covering the fistula, and another needed a nasokystic drain to allow for isotonic saline instillation. Surgery was performed in only 7 patients, including 3 tumoral cases, 3 cases of large stones that could not be extracted and

the last case was a post-operative bile duct injury that was inaccessible to endoscopic treatment. Adequate antibiotic therapy was prescribed in all patients with close clinical and biological surveillance. The clinical evolution was generally favourable in almost all patients after obstacle clearance. Only one death was noted complicating a septic shock.

***Conclusion:*** Biliary endoscopic drainage is now the treatment of choice during cholangitis which allows a rapid decompression of the bile ducts, optimization of the antibiotic therapy, remove the biliary obstacle and avoiding surgery with much better outcomes. In our series the endoscopic treatment allowed a biliary clearance in more than 83% of cases with a favorable evolution after endoscopic drainge.

***Keywords:*** Acute cholangitis, endoscopic drainage

---

***PP-524***

## *Can colonoscopic band ligation (without resection) be an effective and complication free technique in pedunculated polyp treatment?*

Ufuk Kutluana

*Department of Internal Medicine and Gastroenterology, Uşak University School of Medicine, Uşak, Turkey*

***Background/Aims:*** Increasing numbers of early stage colorectal cancers and pre-cancerous adenomatous lesions, polyps can be visualised and treated endo¬scopically. Endoscopic polypectomy is becoming increasingly safe and ambitious, although this treatment comes with a price tag: complications secondary to polypectomy. They can generally be grouped into two types: hemorrhages and perforation (1). Endoscopic band ligation (EBL) is effective for treatment of both variceal and non-variceal upper-gastrointestinal hemorrhage. There have been only case reports on the use of EBL in the colorectal polyps (2).

***Materials and Methods:*** In this presentation, we present our experience with the EBL (without resection) for the treatment of a large pedunculated colorectal polyp in three cases as a salvage treatment when our alternative treatment option wasn't available. In these cases, we used the colonoscopic band ligator (CBL) which we designed and produced not the standard multiband ligators (MBL). CBL had a larger (front-in-diameter 16mm) and conical cap than the standard MBLs (figure 1a). Case 1: Colonoscopy was performed in 72-year-old man (receiving anticoagulant) because of iron deficiency anemia. Two large pedunculated polyps (adenomatous polyp) were identified and treated with CBL for colonoscopy without complication (Figure 1. b-e). Case 2: Colonoscopy was performed in 55-year-old woman because of history of colorectal carcinoma in her family. A pedunculated polyp (adenomatous polyp) was identified (Figure 1f) and treated with three band effectively by CBL without complication (Figure 1g). Case 3: 52-year-old female patient was referred to our hospital because of a giant polyp occluding the lumen from another center. A pedunculated polyp (tubular adenoma) almost occluding the lumen was identified (Figure 1h) and treated with CBL without complication (Figure 1i). Control biopsies were taken from scar areas in all patients and none of them had dysplastic findings.

***Results:*** According to our literature screening, this kind of technique has not been reported. The advantages of the use of CBL are as follows: It is an easy-to-implement technique, It provides treatment for every colonic area that the colonoscope can reach, It has a low risk of bleeding and perforation, It is quite cost-effective treatment option. The disadvantages of treat¬ment with CBL in such cases are as follows: The histology of a tumor can't be evaluated accurately because the tumor falls off spontaneously after procedure, The recurrence risk of lesions of treatment with this technique is uncertain, En bloc resection is recommended in this case because it provides more accurate histological assessment and reduces the risk of recurrence (3). We think that CBL treatment without dissection may be safe technique.

***Conclusion:*** In the light of our experience, treatment with CBL is promising in terms of applicability and development.

***Keywords:*** Colorectal polyp, band ligation, polypectomy

***PP-525***

## *Plummer-vinson syndrome: About 17 cases*

**El Karimi Amine, El Bacha Hicham, Benzzoubeir Nadia, Souidine Farida, Ouazzani Laaziza**

*Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Plummer-Vinson syndrome (SPV) or Kelly Patterson is a rare disease characterized by cervical dysphagia associated with Iron deficiency anemia and a ring on the upper esophagus. The aim of this study is to determine: clinic, endoscopic, therapeutic and evolution features of this syndrome

***Materials and methods***: We performed a retrospective and descriptive study from January 2001 to June 2019 in our unit including all patients with dysphagia due to Plummer Vinson syndrome, all patients had esogastroscopy, complete blood count, iron deficiency assessment.

***Results***: We included 17 patients 14 women sex ratio. The average age was 39.5 years(30-80). All patients presented dysphagia and anemic syndrome. complete blood count found hypochromic microcytic anemia with mean Hb at 8.6 g / dl, Blood Protein Electrophoresis found low protein and low albumin level in 15 cases (89.9% of patients). The esogastroscopy revealed, a tight oesophagus web not allowing passage of the scope in 12 cases (70% of patients) presence of an oesophageal mass in 1 case (5% of patients). All the patients had iron supplementation combined with endoscopic dilation with agood clinical outcomes.

***Conclusion***: Plummer-Vinson syndrome is a rare cause of dysphagia, esogastroscopy is important for both diagnosis and therapy. Increase risk of squamous cell carcinoma indicate endoscopic follow up neoplastic transplant is frequent which justify endoscopic surveillance with biopsies.

***Keywords:*** Plummer-Vinson syndrome, cervical dysphagia, Iron deficiency anemia, ring on the upper esophagus, neoplastic transplant

---

***PP-526***

## *Management of an adolescent with familial adenomatous polyposis: Report of a case*

**Anche Volkanovska Nikolovska, Viktorija Chaloska Ivanova, Dafina Nikolova, Emilija Nikolovska, Ana Karadzova Dzambaz, Mitko Miloshevski, Fana Lichoska Josifovikj, Kalina Grivcheva Stardelova, Gjorgji Deriban**

*University Clinic for Gastroenterohepatology, Skopje, Macedonia*

Familial adenomatous polyposis (FAP) is a syndrome inherited in an autosomal dominant trait which is clinically diagnosed upon identification of >100 colorectal adenomatous polyps. Additional characteristics are several extracolonic manifestations and malignancies. It is a consequence of mutation of a specific tumor supressor gene. Polyps of benign nature begin to appear in childhood or adolescence and if not treated early enough, one or more inevitably progress to cancer. Consequently, identifying and screening for FAP commences in adolescence. Colectomy is unavoidable in this group of patients, yet the decision is not always straightforward. The age and timing at which prophylactic colectomy is performed is not fixed, nor there are evidence to guide us at which point colectomy should be performed based on polyp burden. A 16-year-old male patient with abdominal pain and iron deficient anemia was referred for evaluation at our Clinic. Personal history was unremarkable while family history was positive for FAP syndrome with all second-and third-degree relatives from mother's side being affected. Our patient's mother had subtotal proctolectomy at the age of 36 and subsequent operation for abdominal wall dermatofibrosarcoma. Our patient's 3 siblings were symptom free and unevaluated at the time this article was written. The patient's father was healthy. We performed colonoscopy and detected < 50 polyps throughout the colon with diameter < 1 cm. Endoscopic resection was performed on 15 larger polyps and the histologic finding was consistent with tubular adenoma with low-to high-grade dysplasia. On screening for polyps of the upper gastrointestinal tract (GI) with esophagogastroduodenoscopy no polyps were detected. The finding of high-grade dysplasia

would favor a sooner colectomy, still we aimed at postponing the surgery as much as possible given the family history for desmoid disease and patient's age and phenotype. Our management plan included annual surveilance colonoscopies and polypectomies, upper GI endoscopic surveillance and endoscopic resection of adenomas as well as annual abdominal and thyroid ultrasound. His siblings were scheduled for endoscopic evaluation. Family genetic testing was also advised (diagnostic and predictive) but due to technical difficulties it was not completed by the time this article was written.

***Keywords:*** Familial adenomatous polyposis, polyposis, adolescent, colonoscopy, colorectal cancer

---

***PP-527***

## *Gastrointestinal stromal tumours (GISTS): A descriptive study on 44 cases*

**Mohamed Karim Temani[1], Amal Khsiba[1], Moufida Mahmoudi[1], Mouna Medhioub[1], Mahdi Bouassida[2], Lamine Hamzaoui[1], Mohamed Msaddek Azzouz[1]**

*[1]Department of Gastroenterology and Hepatology, Faculté De Medecine De Tunis, Tunisia Mohamed Taher Maamouri Hospital Nabeul Tunisia, Nabeul, Tunisia*
*[2]Department of General Surgery, Faculté De Medecine De Tunis, Tunisia Mohamed Taher Maamouri Hospital Nabeul Tunisia, Nabeul, Tunisia*

***Background/Aims:*** A gastrointestinal stromal tumor (GIST) is a type of tumor that occurs in the gastrointestinal tract, most commonly in the stomach or small intestine. The tumors are thought to grow from specialized cells found in the gastrointestinal tract called interstitial cells of Cajal (ICCs). The tumors can be cancerous (malignant) or noncancerous (benign). The aim of the study is to report on epidemiological, clinical, histological, and therapeutic characteristics of GISTs.

***Materials and Methods:*** A retrospective descriptive study of 44 cases of GIST in gastroenterology and general surgery departments of Mohamed Tahar Maamouri Hospital was conducted from January 2005 to decembre 2018.

***Results:*** Among the 44 patients, there were 27 males (61%) and 17 females (39%) with a median age of 61 years (range, 30-96years). The main symptoms were abdominal pain (41%) and weight loss (25%). The tumour was revealed by a complication in 12 cases (27%). Nine patients (20.5%) had metastatic lesions. The most common sites were the stomach (54.5%) and the small intestine (18.1%). The median tumour size was 9 cm (range, 1-30cm). Spindle cell tumours were the main histological type (77.2%). KIT was positive in the majority of cases (84%). Thirty-six patients with primary disease (81.8%) underwent a surgical resection. Imatinib was prescribed in 13 patients (29.5%). Sunitinib malate was indicated in 4 patients who had tumour progression under imatinib.

***Conclusion:*** The management of GISTs has considerably evolved during the last years. Surgical resection, which remains the mainstay of treatment, was indicated in the majority of patients. Imatinib treatment has not improved overall survival in metastatic and/or inoperable cases.

***Keywords:*** GIST, surgical resection, imatinib

---

***PP-528***

## *Management of intraabdominal abscesses in patients with Crohn's disease*

**Tahir Mahamat-saleh, Abouelhak Sara, Tahiri Mohamed, Haddad Fouad, Hliwa Wafaa, Bellabah Ahmed, Badre Wafaa**

*Ibn Rochd Hospital Center University, Casablanca, Morocco*

***Background/Aims:*** Crohn's disease (CD) is a chronic inflammatory condition of the gastrointestinal tract that is complicated by fistulas, strictures and intraabdominal abscesses (IAA) in 10 to 30% of patients. Intra-abdominal abscess can be discover with the disease or appear during its evolution either spontaneously or as a complication of surgery

***Materials and Methods:*** It's a retrospective and descriptive study of 289 patients admitted for Crohns disease (CD) from January 2012 to December 2018. We identified fifty-two patients who were diagnosed with CD that was complicated by an intraabdominal abscess, so a frequency of 17.9%. We excluded from our study patients with perineal abscesses, intraperitoneal abscesses that appeared in postoperative outcomes and per-operative abscess.

***Results:*** The age of patients at the time of CD diagnosis ranged from 15 to 72 years (average: 34 years). There was 27 men and 25 women. The clinical presentation was abdominal pain (90.3%), fever (65.3%), a palpable abdominal mass (40.4%) and Koenig syndrome (38.4%). The abscesses are found mostly in the right iliac fossa (42.3%) and the psoas (30.76%). Other intra-parietal abscesses are located in the small intestine (17.3%) and colon (9.61%). Twenty eight patients (53.8%) were diagnosed with CD at the time they presented with an abscess. They were not under treatment at the time of diagnosis. The delay between CD diagnosis and the occurrence of abscess ranged from 6 months to 22 years with an average of 6 years. The mean estimated of abscesses size based on pre-treatment imaging was 5.2 cm with a range of 1 to 17 cm. All patients were treated by antibiotic (Ciprofloxacine and Metronidazol). Antibiotic therapy alone was effective in 25 patients (48,1%) including 21 patients (84%) with abscess less than 4 cm. Thirteen patients underwent percutaneous drainage of witch 4 (30,76%) responded well. Twenty-tree patients underwent surgical drainage and 16 had an ileocecal resection. An ileostomy was performed in 6 patients and an ileocolic anastomosis in the 6 others. Multiple parameters (smoking, the size and site of the abscess, the presence of fistula or stenosis in imaging, prescription of corticosteroids, immunosuppressive treatments or biotherapy) were analyzed to identify factors associated with the failure of antibiotic therapy alone. Thus, the size and the site of the abscess, the presence of fistula were predictive of failure of first-line antimicrobial treatment. Similarly, the presence of fistula or stenosis was predictive of radiological drainage failure (p=0.01). The ileocecal resection was significantly associated with the presence of stenosis or fistula. However was associated with ileocecal resection in a statistically significant way. However, the use of ileocecal resection is higher in patients who smoke, taking steroids or immunosuppressive drugs and in cases of abscess more than cm without being statistically significant.

***Conclusion:*** The management of intra-abdominal abscess in Crohns disease has not clear recommendations. However, medical treatment alone is indicated for abscesses less than 3 cm, percutaneous drainage for abscesses larger than 3 cm and surgical drainage is reserved for failure or abscess inaccessible to percutaneous drainage.

***Keywords:*** Intraabdominal abscess

---

***PP-529***

## *Frequency, behaivor and predictors of azathioprine induced pancreatitis among IBD patients: Results of a tertiary referral center with description of diagnostic confusion factor, GI intolerance*

**Tuğçe Eskazan, Kadri Atay, Nurhan Demir, Selma Bozcan, Süleyman Yıldırım, Yusuf Erzin, İbrahim Hatemi, Aykut Ferhat Çelik**

Department of Internal Medicine, Division of Gastroenterology, İstanbul University-Cerrahpaşa, Cerrahpaşa School of Medicine, İstanbul, Turkey

***Background/Aims:*** Aim of the study was to identify the frequency of azathioprine (AZA) induced pancreatitis(AZA-AP) and related factors in a tertiary referral center. We also assessed the behaivour (type, necessity of hospitalization, curing time) of AZA induced pancreatitis.

***Materials and Methods:*** Currently there are 2115 patients in our IBD registry. These patients' files were analyzed and 787 subjects on AZA Tx with regular follow up were eligible for the final analysis. Patients' demographic features, disease

extension, smoking status, alcohol consumption, presence of gallstones, lipid and calcium levels, time between diagnosis and AZA initiation, dose of AZA and concomitant medications were noted. A patient was regarded to have pancreatitis in the presence of typical upper abdominal pain with positive imaging and/or raised amylase at least three-folds. Pts who had developed GI symptoms less than a week use of AZA without amylse increase and/or negative radiologic findings and/or completely healing of GI symptoms cessation of AZA within less than a couple of day, accepted as GI intolerant rather than having pancreatitis. Cases with pancreatitis randomly were matched with patients with the same diagnosis and having no pancreatitis under AZA. Control group initially chosen from the same registry as a protocol number just before or after the index pts and accepted if the specific diagnose (UC or CD) and AZA use was longer than a couple of months.

***Results:*** Twenty six patients developed(AZA-AP). All of them developed pancreatitis within the first two months after the starting AZA. When those with pancreatitis (Group Ap=26) were compared to patients without pancreatitis(Group control=104)there was no difference regarding age at diagnosis,disease extension,AZA dose, concomitant medications, and alcohol consumption,but active smokers were significantly more common in Group 1 (Table 1.).

***Conclusion:*** In accordance with the available literature the present study shows that only a minority of IBD patients develop AZA induced pancreatitis all within the first two months, and fortunately a milder one. Smoking was significantly more common among patients developing pancreatitis under AZA. Smoking as a recently established risk factor for acute and chronic pancreatitis we may deserve further evaluation in future studies. Attention to GI intolerance may decrease over-diagnosis of AZA related pancreatitis.

***Table 1.*** Comparison of both groups

| Variables (n=130) | Group AZA-AP (n=26) | Group control (n=104) | P value |
|---|---|---|---|
| Sex (female/male), n (%) | 11 (42.3) / 15 (57.7) | 44 (42.3) / 60 (57.7) | NS |
| Diagnosis (UC/CD), n (%) | 5 (19.2) / 21 (80.8) | 20 (32.3) / 84 (80.7) | NS |
| Age at diagnosis of IBD | 33.8 ± 12.1 | 32.2 ± 11.7 | NS |
| Median time between diagnosis and AZA start, median (min-max), mo | 9.5 (0-90) | 8.5 (0-180) | NS |
| Mean age of starting AZA | 35.8 ± 11.9 | 34.1 ± 11.6 | NS |
| Mean initial AZA dose (mg/gün) | 96.2 ± 32.2 | 103.4 ± 34.7 | NS |
| Mean CRP level at starting AZA, median (min-max) | 14.5 (1-129) | 13 (1-264) | NS |
| Mean BMI | 24 ±5.34 | 22.7 ± 4.5 | NS |
| Patients using 5-ASA, n (%) | 14 (53.8) | 69 (66.3) | NS |
| Patients using steroids, n (%) | 10 (38.5) | 48 (46.2) | NS |
| Patients using budesonide, n (%) | 12 (46.2) | 26 (25) | 0.034 |
| Patients using anti TNF, n (%) | 1 (3.8) | 17 (16.3) | NS |
| Patients using SAZ, n (%) | 3 (11.5) | 4 (3.8) | NS |
| Smokers, n (%) | 20 (76.9) | 53 (51) | 0.017 |
| Alcohol consumption, n (%) | 3 (11.5) | 15 (14.4) | NS |
| Family history of IBD, n (%) | 1 (38) | 15 (14.4) | NS |
| Presence of gallstones, n (%) | 2 (7.7) | 11 (10.6) | NS |
| Hyperlipidemia, n (%) | 0 (0) | 15 (14.4) | NS |
| Presence of PSC, n (%) | 1 (3.8) | 0 (0) | NS |

***PP-530***

## *Pancreas volume and fecal elastase-1 as prognostic marker for pancreatic exocrine insufficiency following pancreatic resection*

**Min Kyu Jung**

*Kyungpook National University School of Medicine, Daegu, South Korea*

***Background/Aims:*** Pancreatic resection can lead to pancreatic exocrine insufficiency (PEI). Fecal elastase-1 (FE-1) test is an effective marker for assessment of PEI in patients who underwent pancreatic resection. We measured pancreas volume, FE-1 level, and BMI of 36 patients who underwent pancreatic resection. The aims of this study ware (1) to assess the relevance between reduced pancreas volume and decreased FE-1 level, (2) to assess the effectiveness of FE-1 level as predictive marker on underweight caused by PEI in patients with pancreatic resection.

***Materials and Methods:*** 36 Patients who underwent pancreatic resection at Kyungpook national university hospital between April 2015 and December 2018 were enrolled. Pancreas volume, FE-1 level and BMI were measured in all 36 patients after pancreatic resection. Patients were divided into three groups according to FE-1 level: "normal" (≥200 μg/g), " intermediate decrease" (15-199 μg/g), "severe decrease" (<15 μg/g). The association of pancreas volume, FE-1 level, and BMI was analyzed respectively.

***Results:*** Mean FE-1 level was 100.3 μg/g. 7 patients (19%) had normal pancreatic exocrine function and 29 patients (81%) had PEI in patients who underwent pancreatic resection. In PEI patients, 19 patients had "intermediate decrease" FE-1 level and 10 patients had "severe decrease" FE-1 level. 8 patients had underweight on BMI (BMI <18.5). Reduction of pancreas volume was not significantly associated with decrease of FE-1 level (p=.29). But, reduction of pancreas volume has strong correlation with body weight loss as indicated by BMI (p=0.007). Decreased FE-1 level was not significantly associated with decrease of BMI (p=.84). However, "severe decrease' of FE-1 level has the weak correlation with decrease of BMI (p=.10).

***Conclusion:*** Pancreas volume and decrease of FE-1 level is a simple and useful predictive marker for PEI in patients who underwent pancreatic resection.

***Keywords:*** Pancreatic exocrine insufficiency, pancreatic resection, pancreas volume, fecal elastase-1, BMI

---

***PP-531***

## *The prevalence change of gastroesophageal reflux disease (GERD) after helicobacter pylori eradication, a 10 years follow-up study*

**Alireza Sadjadi[1], Mohammad Hassan Rouzegari[2], Hassan Salmanroghani[2], Hafez Tirgar Fakheri[3], Mehdei Saberifirozi[1], Sadegh Massarrat[1]**

*[1]Digestive Disease Research Institute-Tehran University of Medical Sciences, Tehran, Iran*
*[2]Yazd University of Medical Sciences, Iran*
*[3]Mazandaran University of Medical Sciences, Iran*

***Background/Aims:*** Gastroesophageal reflux disease (GERD) is a prevalent disorder whose symptoms need long term medical therapy or surgical intervention. Its occurrence after Helicobacter intervention is associated with great controversy due to different and mostly short time follow up. This study aims to investigate the development of GERD in a large number of participants not suffering initially from GERD undergoing eradication of Helicobacter pylori more than one decade before.

***Materials and Methods:*** 643 first degree relatives of gastric cancer patients and 296 asymptomatic participants were living in the area with a high incidence of gastric cancer underwent eradication therapy from 2000 to 2010. H. pylori eradication was confirmed by the

13C-urea breath test (96%) or stool antigen test (4%). They were invited to a new investigation during 2017-2019. A further clinical examination was done for all, and 296 participants living in higher gastric cancer incidence area underwent the second endoscopy. A validated questionnaire covering demographic characteristics, GERD symptoms, and medical history was filled out for each.

***Results:*** Participants followed over 10.3 ± 2.3 years. Endoscopic esophagitis increased in all 296 eradicated subjects from 22.5% before eradication to 27.1% in the second endoscopy after ten years. (p<0.01). In those with clinical examination (643 participants), the successful eradication rate after ten years was 73.9%. The symptomatic GERD was notably higher in the eradicated group (29.8%) compare to participants with Helicobacter pylori-positive test (19.3%)(p <0.01).

***Conclusion:*** GERD prevalence increase endoscopically and clinically longer time after eradication of H. pylori. The novo GERD appearance limits the general view on the necessity of H. pylori eradication recommended in some guidelines.

***Keywords:*** Helicobacter pylori, eradication, gastroesophageal reflux disease, GERD

---

***PP-532***

## *Correlation between imaging and endoscopy during Crohn's disease*

**El Bacha Hicham, Benzzoubeir Nadia, Souidine Farida, Ouazzani Laaziza, Errabih Ikram**

*Hepato-gastro-enterology and Proctology Service Medicine "B", Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Endoscopy is the gold standard for evaluation of Crohns disease extention, severity, response to treatment. and detection of possible dysplasia in colon and terminal ileum,while imaging is more sensitive and specific to detect active ileal inflammatory lesions, stenosis and extraluminal complications. The aim of this work is to evaluate the correlation between endoscopy and imaging in the diagnosis and evaluation of ileocolic Crohns disease.

***Materials and Methods:*** We performed a retrospective study from January 2012 to January 2019.
We included all patients with ileocolonic Crohn's disease who undergone full colonoscopy, ultrasonography and sectional imaging with enteroscanner and/or entero MRI within a period of less than 2 months. The clinical data included were the age, sex, Crohn disease phenotype. The studied lesions were ulcerations, stenosis, fistulas, pseudo polyps, and masses. We also studied endoscopic lesions corresponding to radiological thickening and the correlation between endoscopic activity and the presence of radiological inflammatory. Statistical analysis was performed using Spss software.

***Results:*** We included 130 patients, the mean age was 41, of whom n=69 (53%) were women. Ileocolic localization was found in (70%) n=91. The disease phenotype was inflammatory in (31%) of cases n=40. including 9 cases (7%) of pseudotumoral Crohns. Endoscopic and radiological investigations were indicated as part of the initial diagnosis in (47%) of patients (n=61). Colonoscopy was performed in all our patients. It was pathological in (92%) of cases (n=120): ulcerations found in 81 patients (62%), stenosis in 43 patients (33%), pseudo polyps in 31 patients (24%), ulcerative-budding process in 9 patients 7%, and fistulas in 7 patients (5,40%). The median delay between endoscopy and the realisation of one of the imaging methods was 14 days. Sectional imaging was pathological in 90% of cases (n=121): 100 thickening including (60%) n=60 at the teminal ileal, 42 stenoses, 21 fistulas, and 9 masses evoking a tumor process. Ulceration was found in 3 patients and the appearance of polyp in 3 patients with enteroMRI. Thickening at imaging corresponded on endoscopy at 85 ulcerations, 49 stenoses and 30 polyps. Moderate to severe endoscopic activity corresponded to inflammatory lesion on imaging at 82% (p=0.45). The correlation of imaging and endoscopy findings was statistically significant in the diagnosis of stenosis and tumors (p=0.04 and p <0.01 respectively) and not significant for fistulas, ulcerations, and polyps (p=0.29, p=0.31, p=0.74) respectively)

***Conclusion:*** Endoscopy and sectional imaging in Crohns disease are complementary, which is well demonstrated by correlation studies. The results of our study are similar to those of the literature concerning the concordance of these two examinations for activity disease and the detection of complications.

***Keywords:*** Crohns disease, endoscopy, imaging, correlation

***PP-533***

## *Predictors of outcome in severe acute pancreatitis*

**Nikhil Mahajan, Aproo Sharma, Rajesh Puri, Suraj Bhagat, Randhir Sud, Mahesh Patil, Sunil Reddy, Malay Sharma**

*Medanta, The Medicity, India*

***Background/Aims:*** Mortality due to acute pancreatitis (AP) decreased from 12% to 2% from 1988 to 2003. However, mortality rates remain much higher in subgroups of patients with severe disease. Morbidity is strongly related to multi organ dysfunction and infected pancreatic necrosis. Predictive models for assessing severity and outcomes have low specificity resulting in low positive predictive value. In this study, prognostic value of various inflammatory markers like neutrophil lymphocyte ratio (NLR), lymphocyte monocyte ratio (LMR), platelet lymphocyte ratio (PLR), IL 6 and TNF alfa among others like CRP, intra abdominal pressure, age, BMI, number of organ dysfunctions were measured for predicting mortality, necrosis and duration of hospital/ICU stay.

***Materials and Methods:*** Single Centre, Prospective, Observational and Descriptive study. Patients of acute pancreatitis, presenting within 7 days of their index event, were screened for severity by Revised Atlanta criteria and Modified Marshall scoring. 84 patients with SAP who met the inclusion criteria were included in the study of 1 year duration, including atleast 3 months of follow up.

***Results:*** Using univariate analysis, all inflammatory markers appeared highly significant as predictors of outcomes. But on application of multivariate analysis, only IL-6 appeared as the marker predicting mortality. Similarly, NLR and PLR appeared as the best markers for predicting necrosis. The likely reason why these did not appear significant when multivariate was applied can be explained by the fact that these variables appeared highly inter-linked when correlation analysis was done.

***Conclusion:*** NLR, CRP, RDW, LMR, PLR are inexpensive, convenient and readily available and thus can be used in predicting outcomes in AP. More studies with newer, simpler, inexpensive markers is the need of the hour. Combination of different predictors like inflammatory markers, demographic markers, IAP can be used to compute some score based prediction.

***Keywords:*** Severe acute pancreatitis, NLR, CRP, RDW, LMR, PLR

---

***PP-534***

## *Heterotopic gastric mucosa (HGM) of the proximal esophagus: An unknown entity?*

**Asmae Sarhani, Sara Ghani, Mouna Salihoun, Ilham Serraj, Mohammed Acharki, Nawal Kabbaj**

*Efd-hge Chu Ibn Sina Rabat, Morocco*

***Background/Aims:*** Heterotopic gastric mucosa (HMG) is an islet of gastric mucosa within the esophageal mucosa. These lesions can sit throughout the digestive tract and rarely in the upper third of the esophagus. The pathophysiology of HMG in the upper third of the esophagus remains poorly understood. It seems different from the endobrachy esophagus (EBO). Two hypotheses exist: 1) A pathology acquired in association with a gastroesophageal reflux like for the EBO; 2) A congenital malformation formed very early during embryogenesis. The prevalence of HMG in the proximal esophagus is poorly understood and is estimated to be approximately 1% of patients examined by gastroscopy. The aim of this work is to estimate in our center the prevalence of HMG, clinical signs, endoscopic, microscopic aspects and the different epidemiological factors associated.

***Materials and Methods:*** All patients from a single endoscopy center with a HMG of the upper third of the esophagus were included over a 5-month evaluation period. All lesions seen in endoscopy were confirmed by histological analysis. Endoscopic examination was performed without specific staining.

***Results:*** 736 patients underwent gastroscopy for 5 months. HGM of proximal esophagus was found in 10 patients. There were 8 men and 2 women with an average age of 55 years. Two patients were smokers. Upper gastrointestinal endoscopy was required for clinical manifestations of gastroesophageal reflux in 8 patients. The other two indications were a report of iron deficiency anemia and a search for signs of portal hypertension. The clinical manifestations were dominated by dyspepsia (66%), epigastralgia (50%), heartburn (33%) and regurgitation (16%). The endoscopic lesions associated with HMG were : gastritis (7/10), hiatal hernia (1/10). The lesions of HMG appeared in the form of rounded, suspended, "salmon-red" islets, well defined, measuring on average 1.75 cm (extremes: 1.5-2 cm), sitting on average at 17.5 cm (extremes: 13-20 cm) of the dental arches. The histological study confirmed the appearance of typically fundic glandular cells, with presence of intestinal metaplasia in 30% of HMG cases. Only one patient had Helicobacter pylori infection. No dysplasia was visualized in the HMG.

***Conclusion:*** HGM of the proximal esophagus is a benign abnormality most often accidently discovered in endoscopy. In our short retrospective series the estimated prevalence is 1.3% with a clear male predominance. No dysplasia was found. As this is not a prospective study in our center, the prevalence is undervalued. Thus, during a gastroscopy, careful examination of the upper third of the esophagus at removal of the device is essential, to detect possible ranges of HMG. Biopsies must be systematic to confirm the diagnosis and search for dysplasia. HMG remains unrecognized, underestimated and difficult to diagnose. Due to insufficient evolutionary follow-up data in the literature, its management is still debated and could be similar to that of the EBO for monitoring and treatment, especially in case of symptoms or proven dysplasia.

***Keywords:*** Heterotopic gastric mucosa, endoscopy, proximal esophagus

---

***PP-535***

## *Case report: A case of hemobilia caused by hepatic artery pseudoaneurysm*

**Johaniya Dimaporo, James Crisfil Fructuoso Montesa, Jerica Esguerra, Virgilio Banez**

*Manila Doctors Hospital, Manila, Philippines*

Hemobilia from a rupture of hepatic artery pseudoaneurysm is a rare vascular complication. This is a case of a fifty-eight year old female who initially presented with hematemesis and hematochezia. The patient had previously undergone laparoscopic cholecystectomy two years prior to her admission and had undergone endoscopic retrograde pancreaticoduodenoscopy (ERCP). Esophagogastroduodenoscopy (EGD) was done which revealed a choledochoduodenal fistula just above the ampullary opening with the presence of blood clot and drainage of bile. Computer Tomography scan with angiography of the abdomen revealed pseudoaneurysm at the distal portion of the right hepatic artery. The patient was aggressively resuscitated and successfully managed via endovascular embolization. The diagnosis of visceral artery aneurysm should be considered in a patient with gastrointestinal bleeding and hemodynamic compromise. CT angiography is the diagnostic modality of choice. Early aggressive resuscitation and coagulopathy reversal with blood products are essential, and definitive management should be primarily with endovascular embolization.

***Keywords:*** Hepatic artery pseudoaneurysm, hemobilia, upper gastrointestinal bleeding

**Figure 1.** Esophagogastroduodenoscopy showing a choledochoduodenal fistula with oozing blood.

**Figure 2.** Three dimensional reconstructed image of CT Angiography demonstrating right hepatic artery pseudoaneurym.

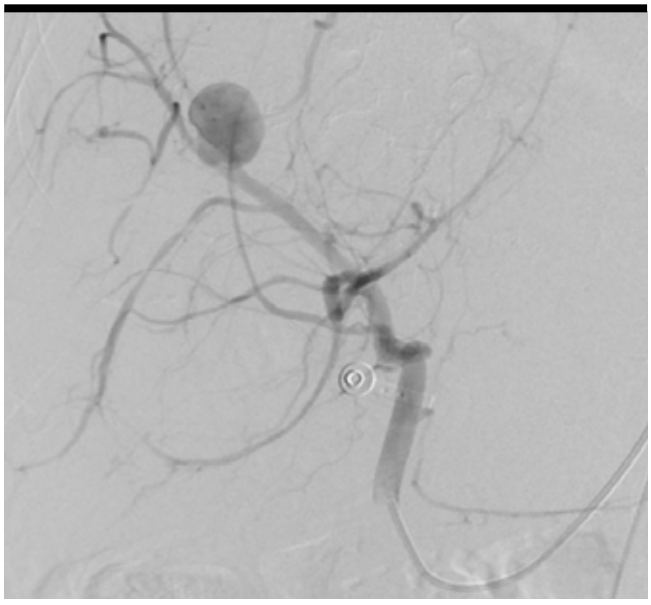


**Figure 3.** Preembolization angiogram demonstrating a replaced right hepatic artery with descending intrahepatic branch feedind a large pseudoaneurysm.

***PP-536***

## *"To study clinical profile of patients of microscopic colitis in patients of chronic watery diarrhea at tertiary care center in South India"*

**Mahesh Patil, Apurva Bacchav, Nitesh Pratap, Ajit Kumar, Sharat Putta, Sethu Babu, Ramakrishna Kappa, Nikhil Mahajan, Malay Sharma**

*KIMS (Krishna Institute of Medical Sciences ) Hospitals, Hyderabad*

***Background/Aims:*** Microscopic colitis (MC) is a chronic relapsing disease of the colon, characterized by a triad of watery non-bloody diarrhea, normal colonoscopy findings, and typical histologic findings. MC has two major histological subtypes: collagenous colitis (CC) with subepithelial collagen band (≥10–20 μm), and lymphocytic colitis (LC), with ≥20 lymphocytes per 100 epithelial cells. Recently with the increase in number of biopsies being taken the increased number of cases of microscopic colitis are being diagnosed. We aimed to study clinical profile of patients of MC and studied prevalence of MC in tertiary care center in South India.

***Materials and Methods:*** It is single center prospective observational study in Tertiary care Hospital in South India and we have included both inpatients and outpatients of Chronic diarrhea with sample size of 110 calculated by Open Epi version3, open source calculator.

***Results:*** Prevalence of MC was 17.26% with 10.9% of CC and 6.36% of LC. We found MC at earlier age (49 years) and also commonly in males. Mean duration of symptoms was 12.29 and 9.89 months in patients with LC and CC respectively (p=0.588). MC patients have statistically significant nocturnal stool frequency (68%), urgency (63%) and exposure to drugs(36%) compared to normal population.

***Conclusion:*** MC is not an uncommon cause of chronic watery diarrhea with normal colonoscopy. In patients with high suspicion of MC segmental biopsies are to be taken from colonic mucosa because it is treatable.

***Keywords:*** Microscopic colitis, lymphocytic colitis, collagenous colitis

| Clinical parameter | | Microscopic colitis | Normal histological study | Level of significance (p-value)* |
|---|---|---|---|---|
| Abdominal pain | Yes | 8 (42.1%) | 29 (31.86%) | 0.273 |
| | No | 11 (57.89%) | 62 (68.13%) | |
| Nocturnal stool frequency | Yes | 13 (68.42%) | 0 (0%) | <0.001 |
| | No | 6 (31.57%) | 91 (100%) | |
| Stool consistency | Type 6 | 9 (47.36%) | 10 (10.98%) | 0.001 |
| | Type 7 | 10 (52.63%) | 81 (89.01%) | |
| Urgency | Yes | 12 (63.15%) | 4 (4.39%) | <0.001 |
| | No | 7 (36.84%) | 87 (95.6%) | |
| Bloating | Yes | 2 (10.52%) | 25 (27.47%) | 0.289 |
| | No | 12 (63.15%) | 66 (72.52%) | |
| Weight loss | Yes | 7 (36.84%) | 9 (9.89%) | 0.007 |
| | No | 12 (63.15%) | 82 (90.1%) | |
| History of Smoking | Yes | 6 (31.57%) | 32 (35.16%) | 0.494 |
| | No | 13 (68.42%) | 59 (64.83%) | |
| Thyroid status | Hypothyroid | 2 (10.52%) | 11 (12.08%) | 0.604 |
| | Normal | 17 (89.47%) | 80 (87.91%) | |
| Diabetes mellitus | Yes | 4 (21.05%) | 26 (28.57%) | 0.36 |
| | No | 15 (78.94%) | 65 (71.42%) | |
| History of drug exposure | Yes | 7 (36.84%) | 2 (2.1%) | <0.001 |
| | No | 12 (63.15%) | 89 (97.8%) | |

| Clinical parameter | | Collagenous Colitis (n=12) | Lymphocytic Colitis (n=7) | Level of significance (p-value)* |
|---|---|---|---|---|
| Mean stool frequency | | 9.58 | 5.43 | 0.486 |
| Abdominal pain | Yes | 5 (41.66%) | 3 (42.85%) | 0.96 |
| | No | 7 (58.33%) | 4 (57.14%) | |
| Increased nocturnal stool frequency | Yes | 10 (83.33%) | 3 (42.85%) | 0.06 |
| | No | 2 (16.66%) | 4 (57.14%) | |
| Stool consistency | Type 6 | 9 (75%) | 1 (14.28%) | 0.01 |
| | Type 7 | 3 (25%) | 6 (85.71%) | |
| Urgency | Yes | 4 (33.33%) | 3 (42.85%) | 0.67 |
| | No | 8 (66.66%) | 4 (57.14%) | |
| Incontinence | Yes | 5 (41.66%) | 1 (14.28%) | <0.001 |
| | No | 7 (58.33%) | 6 (85.71%) | |
| Bloating | Yes | 5 (41.66%) | 2 (28.57%) | 0.56 |
| | No | 7 (58.33%) | 5 (71.42%) | |
| Weight loss | Yes | 3 (25%) | 4 (57.14%) | 0.16 |
| | No | 9 (75%) | 3 (42.85%) | |
| History of Smoking | Yes | 4 (33.33%) | 2 (28.57%) | 0.83 |
| | No | 8 (66.66%) | 5 (71.42%) | |
| Thyroid status | Hypothyroid | 1 (8.33%) | 1 (14.28%) | 0.68 |
| | Normal | 11 (91.66%) | 6 (85.71%) | |
| Diabetes mellitus | Yes | 3 (25%) | 1 (14.28%) | 0.58 |
| | No | 9 (75%) | 6 (85.71%) | |
| History of drug exposure | Yes | 5 (41.66%) | 2 (28.5%) | 0.001 |
| | No | 7 (58.33%) | 5 (71.42%) | |

***PP-537***

## *Epidemiological and endoscopic features of upper gastrointestinal bleeding in patients receiving anticoagulant medication*

**Benzzoubeir Nadia, Souidine Farida, Ouazzani Laaziza, Errabih Ikram**

*Medicine B Department, Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Upper gastrointestinal bleeding (UGB) is frequent in patients on anticoagulants treatment. Prognosis and treatment depend on bleeding severity and etiology in addition to anticoagulation level and comorbidities. The aim of this work is to determine epidemiologic and endoscopic finding to prevent and treat GI bleeding in patients on anticoagulant medication develop a strategy for the prevention of these complications.

***Materials and Methods:*** We performed a retrospective study including all patient with upper GI bleeding under anticoagulant treatment in our unit From January 2008 to January 2019.The clinical data included were the age, sex, procedure indication, clinical parameters (arterial blood pressure, pulse rate, respiratory rate), all patients had a complete blood count, International Normalized Ratio and an upper GI endoscopy

***Results:*** 52 cases of UGB due to anti-coagulant treatment occurred among of 510 UGB of various etiologies a ratio of 10,1%. The median age was 62.2 years (18-70) with a male predominance (H/F=1, 2). Risk factors were: history of gastroduodenal ulcer in n=9 (17%) of the cases, and smoking in n=4 (8.2%) of the patients. The major indication of anticoagulants was cardiovascular disease n=50 (96%) of cases. n=11 (22%) of cases had an hypovolemic shock needing ressucitation in emergency room. Endoscopic findings: gastric ulcer in n=13 (26%) of cases, bulbar ulcer in n=11 (21%) of cases gastritis in n=7 (13.1%) of cases, bulbitis in n=4 (7.3%) of the cases, oesophagitis in n=6 (11%) of the cases, angiodysplasia in n=4 (7.4%) of the cases and gastric cancer in n=3 (6.2%) of

the cases. The endoscopy was normal in n=4 (8%) of the cases. All patients were treated with high dose proton pump inhibitors, n=10 (19.2%) needed blood transfusion, and haemostasis gastrectomy was necessary for the three patients with gastric cancer.

***Conclusion:*** Neoplasia is a severe condition responsible of severe bleeding that may need emergency haemostasis gastrectomy Ulcers are the most common etiology of gastro intestinal bleeding in patients receiving anti-coagulant medication, upper gastrointestinal bleeding due to anticoagulants is a life-threatening condition, therefore its important to implement a prevention strategy for high risk patients, and to treat the bleeding in emergency settings.

***Keywords:*** Gastrointestinal bleeding, endoscopy, anticoagulant medication

---

***PP-538***

## *Abdominal ultrasound combined with laboratory tests as a reliable, easily accessible and cost-effective way of assessing the stages of liver fibrosis and cirrhosis*

**Ghodratolllah Montazeri, Masoud Sotoudeh, Sadegh Massarrat**

*Digestive Disease Research Institute-Tehran University of Medical Sciences, Iran*

***Background/Aims:*** In the last two decades, the simple low-cost abdominal ultrasound examination (US) for the diagnosis of advanced fibrosis and cirrhosis was displaced by very expensive and not overall available modern imaging system like MRI, CT-scan and transient elastography. The aim of this study is to evaluate and emphasize the potential of US for diagnosis of advanced liver fibrosis and cirrhosis.

***Materials and Methods:*** US, laboratory tests (blood counts, transaminases, aspartate aminotransphrase to platelet ratio=A-PRI, International normalized ratio=INR, serum albumin and bilirubin) and liver biopsy were performed in 197 patients with chronic liver diseases. Liver fibrosis was classified in to 6 stages, where stages 1-3 were considered as mild to moderate and stages 4-6 as advanced fibrosis. Sonographic parameters (interrupted liver surface line, nodularity of liver surface, biconvexity of liver edges, grade of liver angle, caudate lobe diameter, parenchym echotexture and spleen size) were obtained. All variables were dichotomized into zero and one and compared with respect to differentiate the stages of liver fibrosis. The sensitivity, specificity, positive and negative predictive values of all variables as well as their summations scores through ROC curve analysis were calculated for the correct histologic diagnosis.

***Results:*** 39 cases had severe fibrosis and cirrhosis and 158 mild to moderate fibrosis. Area under the curves by ROC curve analysis of sonographic variables (surface nodularity surface, angle of left lobe, echotexture of liver and spleen size) was 85%, that of laboratory data (APRI, serum albumin and INR combined) was 83.5.8%., that of APRI alone 81.8% and all combined (sonography and lab data together) was 92.4% for the correct diagnosis.

***Conclusion:*** The simple US examination alone or combined with lab data is able with excellent accuracy to diagnose advanced fibrosis and cirrhosis making the use of other modern imaging modalities unnecessary.

***Keywords:*** Ultrasound, liver fibrosis, cirrhosis

---

***PP-539***

## *Dilation of the plummer-vinson ring: Efficiency and security*

**Asmae Sarhani, Sara Ghani, Mouna Salihoun, Ilham Serraj, Mohammed Acharki, Nawal Kabbaj**

*Efd-hge Chu Ibn Sina Rabat, Morocco*

***Background/Aims:*** The Plummer Vincent syndrome (PVS) or Kelly Paterson is a rare entity defined by the association of upper dysphagia, iron deficiency anemia and a fibrous ring of the cervical esophagus. Although correction of sideropenia may improve these symptoms, endoscopic dilatation of the esophageal diaphragm is often necessary. The main of our work is to analyze the results of endoscopic treatment and then to study the epidemiological, clinical and endoscopic characteristics of PVS.

***Materials and Methods:*** We included in this study 81 cases of PVS collected in our unit between September 2005 and July 2019. All patients underwent martial treatment and endoscopic dilation of the esophageal ring with Gillard Savary Bougies or hydrostatic balloon under or without fluoroscopy. Other session (s) of dilatation was performed in case of recurrence of dysphagia and/or oesophageal stenosis under sedation with propofol.

***Results:*** 18,364 upper gastrointestinal endoscopies were performed, including 198 in the context of PVS, over a period of 14 years (1%). A total of 81 patients with PVS were included, including 67 women (82.7%) and 14 men (18.3%). The average age was 39 (range: 16-78 years). All patients presented dysphagia and anemic syndrome. The anemia found in all patients was iron deficient, the mean hemoglobin level was 9.5 g/dl and ferritin rate 10 µg/l. High gastrointestinal endoscopy was performed in all patients; 76 cases (93.8%) had a single ring while 4 patients had 2 rings (4.9%). Only one patient (1.3%) had 3. All our patients underwent endoscopic dilation with an average of 1.5 dilations with Savary Gillard's bougies in 76 cases (93,8%) and balloons of dilation in 5 cases (6.2%). No cases of perforation were noted after dilatation. The clinical, biological and endoscopic evolution was favorable; no case of malignant degeneration was noted with a mean follow-up of 31.8 months.

***Conclusion:*** Management of PVS is based on endoscopic dilatation and martial supplementation. Our experience confirms that endoscopic dilation is effective, well tolerated and safe. Regular endoscopic monitoring is required despite endoscopic dilatation because the PVS is a premalignant condition

***Keywords:*** Plummer Vinson's syndrome (PVS), endoscopic dilation

---

***PP-540***

## *Study of the awareness of specialists of the therapeutic profile against chronic pancreatitis*

**Aydana Kaliyakparova[1], Alexander Nersesov[1], Almagul Djumabayeva[1], Jamilya Kaibullayeva[1], Aizhan Kanabayeva[1], Aliya Ualiyeva[2]**

*[1] Research Institute of Cardiology and Internal Diseases*
*[2] Al-farabi Kazakh National University, Kazakhstan*

***Background/Aims:*** To study the level of awareness of doctors regarding proper diagnosis and CP, and to develop recommendations for improving the provision of information to doctors in the Republic of Kazakhstan.

***Materials and Methods:*** 3 group focused interviews (focus group studies) were conducted in Almaty. The focus groups were general practitioners, district physicians, in-patient physicians and surgeons, ultrasound diagnostics specialists. These discussions were recorded on video and audio recording, informed consent was obtained from the participants. The duration of focus group discussions is 50-60 minutes. The analysis took the results of 20 focus group participants. Based on the analysis of the results of group focused interviews, a questionnaire was developed.

***Results:*** All the interviewed doctors (98.1-100%) noted in etiological factors alcohol as the most common cause of the development of CP, p=0.840. Smoking is not perceived by therapists as an etiological factor: only 21.1% of surgeons, 53.7% of inpatient doctors and 56.08% (p=0.09) noted smoking as a damaging factor for the pancreas

***Conclusion:*** The survey has shown that today doctors have difficulties with making a diagnosis, which is often due to the lack of necessary equipment in clinics and improper organization of work. In the responses of doctors there is a lack of knowledge and a lack of confidence in their awareness. There are under-examined patients, as a rule, having comorbidities. At the same

time, there is overdiagnosis. According to gastroenterologists, in 70-80% of cases the diagnosis of "CP" is rejected. In the diagnosis of specialists mainly rely on the clinical picture, the results of biochemical analysis and the results of ultrasound studies. A coprogram and a lipid profile are assigned to the horizons. In treatment, mainly diet and enzymes are involved.

***Keywords:*** Chronic pancreatitis, the specialists,diagnostics

---

***PP-541***

## *Autoimmunity associated with hepatitis C virus*

**Alliouch-kerboua Taha Amina, Gadiri-meriche Sabiha, Meriche Hacene**

*Annaba University Hospital Center, Algeria*

***Background/Aims:*** HCV is a hepatotropic virus, but also lymphotropic. This lymphotropism is responsible for the activation and proliferation of B lymphocytes, with the main consequence being the production of autoantibodies (auto-Ab). The overall prevalence of these is very variable: 15 to 65%, and depends on the population studied (ethnic origin) and the positivity threshold used for the detection of auto-Ab. The association between autoimmunity and viral hepatitis C is not without posing many problems to the practitioner; this becomes more difficult when it comes to a combination of chronic viral hepatitis C and autoimmune hepatitis (HAI). This work aims to report the auto-Ab profiles of 82 patients with HCV.

***Materials and Methods:*** The study involved 82 sera from HCV patients (49 men and 33 women with a mean age of 50 ± 16 years). Of these patients, 59.79% had post viral hepatitis C chronic and 40.24% were referred for pre-treatment assessment. The assessment concerned the search for non-organ specific anti-tissue antibodies found during autoimmune liver diseases and the search for anti-nuclear antibodies (ANA).

***Results:*** The search for non-organ specific anti-tissue antibodies was positive for 65.85% of which: 50% are anti-smooth muscle antibodies, 17.07% are smooth muscle antibodies (anti-Factin) and 1.22% are anti-parietal cell antibodies. 34.15% of the sera are negative in ANSO. For ANA testing, it was positive for 40.24% of the sera and showed a heterogeneity of autoantibodies as follows: 29.27% were speckled, 4.88% homogeneous, 3,6% nucleolar, 2.44% centromere and 1.22% nuclear dot multiple and 1.22% membrane aspect. 59, 76% of the sera are negative in ANA.

***Conclusion:*** The significance of these auto-Ab in not clear: non-specific consequence of a liver disease (especially as the disease is advanced); control of an auto-immune fiel constituing a co-factor of aggravation of the liver disese; or auto-Ab induced by viral infection.

***Keywords:*** Hepatits C virus, auto-antibodies, anti-smooth muscle antibodies, anti-nuclear antibodies

---

***PP-542***

## *Case report patient G., 34 years old*

**Aizhan Kanabayeva, Aidana Kaliyakparova, Jamilya Kaibullayeva, Alexander Nersesov, Aigul Raissova**

*Research Institute of Cardiology and Internal Diseases, National Ibd Centre, Moscow*

From the anamnesis:
· red cell transfusion 15.07.18 year
· in 2010 a knife wound to the buttocks.
· bad habits-PIN (synthetic forms)
· transferred diseases: s10.18-acute deep vein thrombosis of the lower left extremity, received inpatient treatment at the

Central State Clinical Hospital, was discharged with recommendations for taking Xarelto, which the patient took 1 day, then self-canceled, wears compression stockings, took Dioflan 1 tab 2 times per day during the 1st month, recommended by the Central State Clinical Hospita of the vessels of the lower extremities a month after discharge the patient did not pass.
· With words for pain, every day takes Tramadol in m (for a month)
Objective: The general condition of moderate severity, due to symptoms of asthenia, and diarrheal syndrome.
· Weight-70 kg, height-179 cm, BMI-21.85 kg / m2 (normal).
· The skin and visible mucous membranes are pale in color, dry, there are scratches on the skin of the back between the shoulder blades, no signs of inflammation, there are sores on the right lower limb.
· Osteo-articular system: Left shin in n 3 and stop moderately edematous, with a difference in the perimeter of n 3 shin 2 * 1.0 cm, the movement of the feet and sensitivity in full volume. The symptoms of Homans and Lyceum are negative.
· Broncho-pulmonary system:.Askultatively: vesicular breathing, wheezing in the lower part of the left lung. NPV-17 per minute
· Digestive system: Oral mucosa of normal color, tongue moist, coated with white bloom at the edge. The abdomen is soft, painless on palpation. Stools according to the patient up to 10-12 times a day mixed with blood, mushy.
· Status localis: perianal area without pathology.
According to laboratory data 12.18y
· anemia (119 g / l), thrombocytosis (478) Leukocytes-10.0 10 * 9 / L, Absolute granulocyte content-5.2 10 * 9 / L, Relative granulocyte content-52.2%, ESR-22 mm / hour
· Iron-5.47 umol / L; Unsaturated iron binding capacity-47.17 umol / L; Ferritin-27.29 ug / L; C-reactive protein-25.33 mg / L;
· D-Dimer-1.37 ug / mL; ASCA IgG – Ref
· Coprogram-no registration, Jew, Slime-++, Leukocytes-in a large number of
· Calprotectin faecal 762 (up to 50).
· PCR biopsy with sigmoid intestine for CMV: detected
· MR enterography from 11.18 y.: Conclusion: MR signs of chronic inflammatory changes in the colon with the greatest changes in the sigmoid and rectum (Crohns disease is not excluded).
Ileocolonoscopy from 12.2019y.: The mucous straight, sigmoid swollen, moderately nodular, hyperemic, with longitudinal ulcers, covered with fibrin and mucus. Also in the rectosigmodal part and in the sigmoid colon there are pseudopolyps from 0.4 to 1.5 cm. The mucosa of the descending, transverse colon, ascending edematous, hyperemic, vascular pattern is absent, in the lumen of a large amount of turbid fluid. The folding is somewhat flattened.

External hemorrhoids. Ulcerative colitis, total lesion, moderate activity, 2nd degree. Mayo index 2 points. Recommended treatment: Basic therapy with 5 ASK 3 grams per os, 1 per rectum GKS with the removal of the scheme Treatment of cytomegalovirus infection: Ganciclovir at the rate of 5 mg per 1 kg of body weight (70 * 5=350) 350 mg + saline every 12 hours for 21 days. Fernic on 1 tab. 2 times a day to 1.5 mpspod control of the KLA. The decision on the further tactics of the introduction of the patient after the results of diaskin test Consultation of the gastroenterologist on an outpatient basis after the results of additional examination (diaskin test) In April 2019 year: Phlegmon of the right hand with necrosis 4 fingers of the right hand, phlegmon of the right tibia. Condition after exarticulation 4 fingers of the right hand. Sepsis? According to CT data from 04/09/18-TVS infiltration of the left lung is not excluded. Considering the progression of ulcerative colitis, the patient's relapsed nature of thromboembolic complications is shown to have a biological anti-TNF therapy (infliximab). However, the presence of opportunistic infections, sepsis is a contraindication to this type of therapy.

***Keywords:*** IBD, therapy

---

***PP-543***

## *Neuro endocrine tumors gastric and Biermer's disease: Which medical care*

**Tarik Gharbi, Ikram Errabih, Hicham El Bacha, Farida Souidine, Laaziza Ouazzani, Nadia Benzzoubeir**

*Hepato-gastro-enterology and Proctology Service "Medicine B", Ibn Sina University Hospital*

***Background/Aims:*** Gastric neuroendocrine tumors form a heterogeneous group, widely dominated by tumors derived from entero-chromaffin-like (ECL) cells specialized in the secretion of histamine and localized within the fundic mucosa.

The vast majority of ECL cell tumors occur in a context of hypergastrinemia secondary to achlorydry induced by chronic atrophic gastritis affecting the fundic mucosa, particularly in the context of a Biermer's disease. The aim of our work is to evaluate the clinical, endoscopic, and histological features of this condition as well as its therapeutic management and its evolution.

***Materials and Methods:*** Over a 4-year period from January 2015 to January 2019, 5 cases of gastric neuroendocrine tumors associated with Biermer's anemia were retrospectively studied in the Hepato-Gastro-Enterology service "Medecine B" at the IBN SINA university hospital center in Rabat. All patients underwent abdominal ultrasound, Upper gastroscopy (UE), echo-endoscopy, and thoraco-abdominopelvic CT scan for other localization, Octreoscan could not be realized because of its inaccessibility. The therapeutic management took into account the following elements: the location of the tumor, the degree of differentiation and the existence of metastases.

***Results:*** During this period, 5 patients were included. The average age was 45 (36 years-63 years). Sex Ratio M/F was 1.5. we performed the UE respectively for anemic syndrome, melena, and epigastralgia. High echo-endoscopy was performed in 4 patients and showed heterogeneous polyploid lesions at the expense of the mucosa and / or the submucosa with respect to the gastric wall. Anatomo-pathological examination concluded that there was a grade 1 gastric neuroendocrine tumor with micronodular hyperplasia of ECL in a context of Biermer autoimmune gastritis in all patients. The biological assessment found a collapsed vitamin B12 with positive anti-parietal antibodies and intrinsic anti-factor. Abdominal ultrasonography and thoracoabdominopelvic CT scan revealed no secondary localization. The therapeutic management consisted of a mucosectomy (1 patient), a simple monitoring (1 patient) and a surgical resection (2 patients)

***Conclusion:*** Well-differentiated neuroendocrine tumors of the fundus are associated with fundic atrophic gastritis (type 1) in 80% of cases. These are usually related to Biermers disease. Surgical indications are very rare. Endoscopic treatment of type 1 tumors larger than 1 cm is necessary and usually sufficient.

***Keywords:*** Neuro endocrine tumors, biermers disease, hypergastrinemia

---

***PP-544***

## *The association between diabetes mellitus and hepatitis C chronic infection: Frequency and mutual interaction*

**Marwa Ghribi, Wafa Ben Mansour, Arwa Gueddiche, Nabil Ben Chaaben, Hichem Loghmari, Mohamed Kettet, Mejda Zakhama, Wided Bouhlel, Leila Safer**

*Gastroenterology Department of Monastir*

***Background/Aims:*** Diabetes mellitus is known to be frequently associated with chronic hepatitis C. Hepatic injuries caused by the C virus can lead to insulin resistance and diabetes. Data regarding the impact of diabetes on the pattern of hepatitis C are still limited. The aim of this study is double: determine the prevalence of diabetes among chronic hepatitis C patients, and identify the impact of diabetes on the prognosis of the viral infection.

***Materials and Methods:*** Chronic hepatitis C patients were retrospectively enrolled. History of diabetes and its treatment were assessed. Screening for diabetes among the patients that are not known for being diabetic was performed. Clinical data, laboratory tests, basic viral load (PCR) and after 24 weeks of achieving antiviral treatment, genotype of the virus and fibroscan, were gathered.

***Results:*** 83 patients with chronic hepatitis C were reviewed. Genotype 1b was the most common genotype. The prevalence of diabetes among them was 37%. In 58% of diabetic patients, insulin therapy was instituted. Advanced fibrosis was significantly higher among diabetic patients ($p=0.002$). The presence of diabetes was correlated with a higher risk of encephalopathy (OR=6) and portal hypertension development ($p<0.05$). Diabetes also seemed to be a predictive factor of the absence

of virological response to treatment (p=0.013). Nevertheless, there were no significant differences between diabetics and no diabetics in terms of decompensation reccurence and degeneration.

***Conclusion:*** There is a significant association between diabetes and chronic hepatitis C. Diabetes can worsen the prognosis of the hepatitis, but also has a negative impact on the sustained virological response. Thus, we recommend a systematic screening for diabetes in chronic hepatitis C patients and an effective handling of glycemia in these patients.

***Keywords:*** Chronic hepatitis C, diabetes mellitus, sustained virological response, advanced fibrosis

---

***PP-545***

## *Epidemiological profil of upper gastrointestinal bleeding in the endoscopic shift*

**Tarik Gharbi, Ikram Errabih, Hicham El Bacha, Farida Souidine, Laaziza Ouazzani, Nadia Benzzoubeir**

*Hepato-gastro-enterology and Proctology Service "Medicine B", Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Gastrointestinal endoscopy is unavoidable in the management of some pathological situations that are recurrent in emergencies and must be effective and safe.Upper gastrointestinal bleeding is indeed the main situation at the origin of the call of the doctor on shift in digestive endoscopy and remains an important cause of morbidity and mortality, beside, other situations are frequently encountered including ingestion of caustic products and foreign bodies. The aim of the work is to report the indications for upper gastrointestinal endoscopy, to discuss the results, to identify any problems of dysfunction and ultimately to formulate suggestions for solutions in order to improve its performance

***Materials and Methods:*** This is a retrospective study carried out over a period of one year (from January 2018 to December 2018) in the Medicine B department. All patients who have benefited from emergency gastroscopy at the medicine department B of Ibn Sina Hospital in Rabat with a weekly care rhythm of 3 weeks. Emergency gastroscopy was performed by residents of the third or fourth year, sometimes under the supervision of a senior. Patients underwent diagnostic gastroscopy in most cases without sedation (84%). The data collected to carry out this study were: patient identity, sex, age, pattern for examination, detailed endoscopic report, treatment management and evolution. The statistical capture and analysis was done using the SPSS 23.0 software

***Results:*** Between January 2018 and December 2018, 351 patients required emergency gastroscopy, 260 (74%) following upper gastrointestinal bleeding, 67 (19%) following the ingestion of a caustic product, 17 (5%) after ingestion of a foreign body (lighter, coin, beef bone,...), and 7 (2%) in the presence of incoercible vomiting. Sex-Ratio M / F was 1.2 and the average age was 37.7 years. 18% of patients were smokers and 68% had one or more chronic conditions (cirrhosis, chronic renal failure, heart disease...). 41% of HDH were due to rupture of oesophageal varices associated in 26% to HTP gastropathy. A bulbar ulcer was found in 17% of cases, isolated gastritis was demonstrated in more than 26% of cases, peptic esophagitis in 12% of cases, bulbleness in 6% of cases and ulcer of stomach in 2% of cases. Gastroscopy was normal in 2% and was inconclusive (presence of abundant blood requiring further exploration) in 3%. Although the endoscopy system of the hospital generally works well and efforts have been made in relation to the availability of equipment (endoscope, ligature kits...) we have identified some constraints. Notably a shortage of blood and restricted access to sedation, which inevitably delays the management of our patients, mainly those requiring interventional endoscopy

***Conclusion:*** Digestive bleeding is the main indication of emergency GIE upper endoscopy. This study allowed us to identify many problems to manage emergency situations requiring a upper digestive endoscopy. These problems should challenge those responsible for a possible restructuring of this unit.

***Keywords:*** Upper gastrointestinal bleeding, endoscopic shift

***PP-546***

## *Does histological remission (Nancy index) predict relapse-free survival in patients with ulcerative colitis in endoscopic remission?*

**Maroua Ben Abbes[1], Mouna Medhioub[1], Salwa Nechi[2], Chiraz Chaabane[2], Amal Khessiba[1], Moufida Mahmoudi[1], Lamine Hamzaoui[1], Emna Chalbi[2], Mohamed Moussedek Azzouz[1]**

*[1]Gasteroenterology Departement of Nabeul, Tunis*
*[2]Anatomopathology Departement of Nabeul, Tunis*

***Background/Aims:*** During the last decades, treatment goals in patients with ulcerative colitis (UC) have shifted from clinical remission only to clinical remission combined with mucosal healing. However, yet, the value of achieving histological remission remains unclear. The aim of this study was to examine whether histological healing could be a predictor of sustained remission in UC patients with mucosal healing and to investigate risk factors for relapse.

***Materials and Methods:*** This was a retrospective monocentric study conducted in the Departments of Gastroenterology and Pathology of Mohamed Taher Maamouri Hospital, between January 2012 to December 2018. Patients diagnosed with UC who had been in clinical remission for at least 6 months were evaluated for endoscopic remission. Those in endoscopic remission (Mayo score ≤1) underwent colonic biopsies. Histological findings were analyzed according to Nancy index. Histological remission was defined as a Nancy index of 0 or 1. Clinical demographics including age, sex, smoking status, disease extent and use of medications were collected.

***Results:*** Sixty-one patients had a sustained clinical remission with a duration ranged from 9 months to 25 years. Of these 61 patients, 28 were in endoscopic remission, 18 were female with a median age of 50.82 years. Medical therapy included 5-aminosalicylic acid (78.6%) and immunosuppressive treatments (21.4%). According to the affected areas, proctitis type accounted for 21.4% of the patients, left-sided type for 21.4%, and pancolitis type for 57.1%. Histological remission was noted in 60.7% (17/28) of the patients, while 11 (39.1%) patients still had histologically active disease. The remission maintenance rate was higher in the histological healing group, without reaching statistical significance (88.3% VS 45.5%, p=0.2). Histological remission did not depend on the disease duration (p=0.5). Endoscopic findings were graded as Mayo score 0 in 57.1% of the patients (n=16) and 1 in 33, 9% (n=12).The remission maintenance rate was higher in the Mayo score 0 group (p=0.04). Others factors as: age, gender, and duration of clinical remission were not found to be statistically significant in predicting relapse.

***Conclusion:*** In our study histological remission failed to reach statistical significance to predict relapse but it showed that patients with Mayo score 1 may need examination of histological inflammation to improve UC patients outcomes.

***Keywords:*** UC, histological remission, Nancy INDEX

---

***PP-547***

## *Anti-parietal cell antibodies*

**Alliouch-kerboua Taha Amina, Gadiri-meriche Sabiha, Meriche Hacene**

*University Hospital of Annaba, Algeria*

***Background/Aims:*** Anti-stomach or anti-parietal cell antibodies (APCA) should be sought during Biermers disease with or without an atrophic gastric. The autoantigens recognized by APCAs are located within gastric parietal cells, and have been identified as a H +, K + adenosine triphosphatase acting as a proton pump. APCA may occur during Helicobacter pylori-induced gastritis. This work aims to analyze the clinical profile of 30 patients with APCA positive.

***Materials and Methods:*** 30 sera from APCA positive patients were analyzed including 22 women and 08 men with a mean age of 24 ± 17 years. The immunological assessment carried out concerned the search for APCA by indirect immunofluorescence on triple substrate (rat liver-kidney-stomach) and the detection of anti-nuclear antibodies (ANA) by indirect immunofluorescence on HEp-2 cells.

***Results:*** The APCA search is positive for all sera. Regarding the ANA search, it was positive for 40% of the sera and revealed a heterogeneity of the fluorescence aspects. 20% of patients show signs of anemia with vitamin B12 deficiency. While 80% of patients have 40% hepatic impairment (cytolysis syndrome, cholestasis syndrome or HCV) and 40% of various clinical signs.

***Conclusion:*** The diagnosis of Biermer anemia is usually made following the discovery of macrocytic anemia, megaloblastic, with a fall in serum vitamin B12. The diagnosis is supported by the discovery of anti-gastric parietal cell antibodies and anti-intrinsic factor antibodies.

***Keywords:*** Biermer anemia, anti-parietal cell antibodies, anti-nuclear antibodies

---

***PP-548***

## *Gastric outlet obstruction caused by taenia saginata – A rare presentation of a common parasite*

**David Wong[1], Guda Roro[2], Gunnar Nysaeter[3], Gilja Odd Helge[3]**

*[1]Department of Gastroenterology, University of Toronto, University Health Network/Mount Sinai Hospital/St. Michael's Hospital, Toronto, Ontario, Canada*
*[2]Department of Internal Medicine, Gastroenterology Division, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia*
*[3]Department of Medicine, Haukeland University Hospital, Bergen, Norway*

***Background/Aims:*** *T.saginata* has worldwide distribution wherever beef is eaten. Adult worms can grow up to 4 to 6 meters long, containing 1000 to 2000 proglottid segments. It attaches to the human host small intestine using suckers on its scolex where it can persist for as long as 25 years (3,4). The intestinal form is commonly asymptomatic or causes mild manifestations. Rarely, the parasite migrates to other parts of the gastrointestinal lumen or pancreaticobiliary ducts potentially resulting in severe complications requiring emergency surgery. Endoscopy is used in the diagnosis and treatment when simple routine tests fail to explain patient's symptoms. We aim to report a case of extremely rare manifestation, gastric outlet obstruction. Etiologic diagnosis was made through endoscopic examination and he was managed successfully with endoscopic and medical therapy.

***Materials and Methods:*** The patient is a 38-year-old male from Holeta, 50 kilometers west of Addis Ababa, complaining of epigastric abdominal pain, early satiety, poor appetite and two kilogram of body weight loss over the last one week. He noted postprandial epigastric distension, vomiting of ingested matter (no blood), and pain during the night. There was a history of consumption of raw and undercooked meat. There was no response to antacids and PPI used over the last week. No history of diarrhea, change in stool color, neither fever nor sweating. On examination, the blood pressure, pulse rate and volume were normal. There were no clinical signs of significant dehydration. Body weight was 62 Kilograms. Abdominal examination revealed epigastric tenderness. There was no visible peristalsis. Succussion splash was negative. Previous stool examination for ova or parasite and H. Pylori tests were negative. Complete blood count was normal with Hemoglobin of 16 gram per deciliter and Mean Corpuscular Volume of 87 femtoliter. Liver function tests and ultrasound of the abdomen were normal. Esophagogastroduodenoscopy revealed distal esophageal mucosal inflammation and tear as a result of regurgitation and forceful vomiting. The esophagus and the stomach contained retained solid food. On approaching the pylorus there was a bulk of whitish, flat, segmented worms almost completely obstructing the pyloric ring. Intense inflammatory edema involved the antrum, and the proximal duodenal mucosa with associated luminal stenosis. The worms were gently removed from the pylorus using biopsy forceps and kept in the stomach. The gastric antrum and the first part of the duodenum were flushed with

saline and clean water to remove the retained food and debris. Subsequently, the endoscope could pass the pyloric opening. The worms were then gently pushed down in to the duodenum using biopsy forceps. Biopsy specimens were taken from the inflamed mucosa to rule out other concomitant pathologies. The result revealed chronic (lymphocytic) gastroduodenitis. The patient was treated with Praziquantel 15miligram per kilogram body weight and pantoprazole 40mg twice daily and advised not to eat undercooked meat.

***Results:*** Our patient presented with typical clinical and endoscopic features of gastric outlet obstruction caused by large coils of tapeworm and associated severe inflammatory edema around the pyloric opening. The obstruction was relieved by removing the parasite from the pyloric ring and by giving the patient praziquantel and Pantoprazole. On reevaluation after three days the patient reported passage of dead worms with stool and improvement of his abdominal pain. Vomiting and distension subsided.

***Conclusion:*** Tapeworm can rarely cause gastric outlet obstruction and it can be successfully treated with endoscopic and medical therapy.

***Keywords:*** Tapeworm, T. saginata, gastric outlet obstruction

---

***PP-549***

## *Interest of the Rutgeerts Score in the management of Crohnian patients after ileocecal resection*

**Manal Mahmoudi, Nawal Lagdali, Camelia Berhili, Imane Benelbarhdadi, Mohamed Borahma, Fatima Zahra Ajana**

*Department of Gastroenterology, Medicine C, Ibn-Sina University Hospital, Mohamed V University, Rabat, Morocco*

***Background/Aims:*** Our study aims to assess the risk of recurrence after about 6 to 12 months of ileocecal resection and to know the impact of SR on the management of operated Crohns disease.

***Materials and Methods:*** Our retrospective study was conducted to study 155 patients with operated Crohns disease (ileocecal resection) who underwent colonoscopy after 6 to 12 months from January 2011 out of a total of 560 Crohns patients.

***Results:*** Of a total of 560 Crohns disease patients, 155 (28%) underwent ileocecal resection followed by colonoscopy after about 6 to 12 months, with an average follow-up of 6 years +/-3 years. These are 82 men and 73 women with a sex ratio (H/F) of 1.13. The median time between surgery and endoscopy was 8 months (4-12 months). All patients were regularly followed and 100 patients (66%) were placed on postoperative medical treatment before colonoscopy. These included 5ASA in 12 patients, Azathioprine in 47, and Anti TNFα in 14 patients. Therapeutic abstention was decided in 50 patients (44%). Colonoscopy showed a Rutgeerts score at i0 in 27 patients (17%); at i1 in 14 patients (9%); at i2 in 57 patients (37%); at i3 in 40 patients (25%) and 14 patients (11%). 45% of patients had a score≥i2, these patients benefited from a therapeutic escalation after endoscopic RPO diagnosis: Immunosuppressants were indicated in 50% of our patients; anti TNF alpha were indicated in 30% of our patients and finally a combo therapy was indicated in 20% of our patients. In our cohort, clinical recurrence was significantly associated with endoscopic recurrence (p=0.008)

***Conclusion:*** Control colonoscopy after ileocecal resection provides a means of predicting the risk of postoperative recurrence thanks to the Rutgeerts score and thus allows the therapeutic attitude to be changed according to the severity of the lesions while allowing to slow the recurrence postoperative clinical and prevent further complications.

***Keywords:*** Rutgeerts score, Crohns disease, ileocecal resection

***PP-550***

## *Pancreatitis in inflammatory bowel disease: Case series of 4 patients in a university hospital*

**Cristian Camilo Páez Cancelado[1], Jong Hyuk Park Noh[2], Rafael García Duperly[1], Adriana Margarita María Rey Rubiano[1], Rocio Del Pilar López Panqueva[1], Belén Elvira Mendoza De Molano[1]**

*[1]Fundación Santa Fe De Bogotá, Bogotá, Columbia*
*[2]Universidad De Los Andes, Bogotá, Columbia*

***Introduction***: Inflammatory Bowel Disease (IBD), which includes Ulcerative Colitis (UC) and Crohns Disease (CD), is a systemic disorder than can compromise various organs. The extraintestinal manifestations (EIM) of IBD include a group of heterogeneous symptoms that affect in descending order of prevalence the: musculoskeletal, cutaneous, ocular and hepatobiliary systems. Despite having a low prevalence, pancreatitis associated to IBD has been increasing in incidence. Worldwide it has been reported that IBD increases the risk of biliary calculi formation, production of pancreatic antibodies, morphological alterations and even of directly damaging the pancreas through inflammation. Despite there not being case reports in Colombia of IBD associated pancreatitis, it is important to know that it still can affect patients in Colombia. Our aim is to present the epidemiological characteristics of the clinical manifestations and outcomes of 4 cases attended at our University Hospital of Fundación Santa Fe de Bogotá (UH-FSFB), along with a literature revision of IBD associated pancreatitis.

***Case:*** *Case 1)* 53-year-old made with previous diagnosis of CD attended the emergency department (ED) due to an intense lumbar pain associated with shivers. Urinary lithiasis, considered as a primary possible diagnosis, was discarded. Patient referred to be receiving medical treatment for his IBD with oral mesalazine and azathioprine, this last drug started a week ago. The values of amylase and lipase were found to be elevated (Table 1); the biliary tract ecography was reported as normal and an abdominal computerized tomography (CT) scan with contrast showed multiple segmental thickenings of the colon including ileum, pancreas thickening and alterations in peripancreatic adipose tissue. Patient was further diagnosed with a possible azathioprine induced severe acute pancreatitis (AP) and active CD. He is consequently transferred to the intensive care unit (ICU) in which after discontinuing azathioprine he receives fluid replacement therapy, parenteral nutrition and vedolizumab. Later on patient refers gastrointestinal symptom control, adequate pain control and oral tolerance with normal diet. Patient is discharged with vedolizumab as his biological therapy treatment. *Case 2)* 40-year-old female with previous diagnosis of UC attended the ED due to 2 weeks of multiple episodes of bloody diarrhea and generalized abdominal pain. She referred to be taking since 1 month ago oral mesalazine, intrarectal budesonide and adalimumab. Upon entry she presents normal vital signs. Laboratory exams reported: negative for *Clostridium difficile* C-reactive protein, normal liver function test, normal ferrokinetic test, and a positive coprological test for *Entamoeba histolytica* cysts. Patient was hospitalized with diagnosis of parasite-associated infectious colitis. Patient receives as medical treatment ciprofloxacin, nitazoxanide, rectal and oral mesalazine and dose-adjusted adalimumab because she had previously received a dosage that was not in optimal therapeutic ranges. 48 hours later, patient presented postprandial intense epigastralgia. Amylase and lipase lab reported were requested, which later on were reported as normal (Table 1). With respect to other lab reports, the patient presented normal transaminases, bilirubin values and abdominal echography. A magnetic resonance imaging (MRI) of the abdomen was later on requested, which showed a morphologically normal pancreas and a thickening of the left colon. No other alteration was reported in the MRI. The patient was diagnosed with idiopathic AP possibly due to the inflammatory burden associated with the active UC without sufficient criteria to be transferred into the ICU. Supportive management for the pancreatitis was established until oral tolerance of normal diet was achieved. Patient was discharged with pharmacological treatment for his IBD. Remission of his clinical presentation was achieved. *Case 3)* 68-year-old female with previous diagnosis of UC and history of total proctocolectomy with ileoanal pouch anastomosis and severe chronic pouchitis, sclerosing cholangitis and chronic abdominal pain. During the clinical follow up in external consultation, an abdominal MRI and endoscopic ultrasonography (EUS) of the biliary tract was requested. The exams report chronic pancreatitis based on Rosemon criteria. As a result, autoimmune pancreatitis is proposed as a possible differential diagnosis. Pancreatic biopsies were further on requested in order to quantify 2

sets of IgG4, of which both were reported as normal. Therapeutic testing with 15 mg daily oral prednisolone during 2 months without a clinical response. Additionally, the patient presented with a negative Sudan test and a normal elastase test. 3 follow up echo-endosonographies, which were realized annually, showed the same echographic findings previously mentioned. In order to control her severe pouchitis the patient was further on treated with biological therapy, metronidazol, and ciprofloxacin. In addition, pancreatic enzymes were prescribed for optimal dosage. Strict vigilance with abdominal MRI and echo-endosonography was continued. *Case 4)* 17-year-old male with history of AP of possibly biliary origin done 2 years ago attends the ED due to vomit, diarrhea and abdominal pain. Patient refers to be receiving treatment with mesalazine and cyclic steroid therapy for his indeterminate IBD. Treatment is initiated with metronidazole, mesalazine and pulse corticosteroid. Afterwards, a colonoscopy with biopsies was requested. The colonoscopy report showed extensive active inflammation of the colon. Consequently, the patient is diagnosed with ulcerative pancolitis and treatment with 150 milligrams/day of azathioprine, 4 grams/day of mesalazine and biological therapy is established. 24 hours later, the patient presented a high intensity epigastralgia. Under the suspicion of pancreatitis, pancreatic enzymes were requested. Further on, lab results reported elevated pancreatic enzymes and normal liver profile (Table 1). An echoendoscopy was then solicited. Due to the extensive duodenitis, however, the echoendoscopy procedure was not able to be done completely. Thus, only duodenal biopsies were obtained, which showed duodenal mucosal with atrophy and widening of the villi accompanied by a dense diffuse lymphoplasmacytic infiltrate with severe activity but without evidence of dysplasia, granulomas or microorganisms. Later on an abdominal CT with contrast that was done showed a thickening of pancreas parenchyma with alterations of peripancreatic adipose tissue. As a result, the patient was diagnosed with idiopathic AP, possibly due to structural alteration of the duodenum. CD was also being suspected due to the gastrointestinal localization of the compromise. The patient was stabilized with medical standard treatment for AP and later on discharged with adalimumab, prednisolone and oral mesalazine until clinical remission was achieved.

***Conclusion:*** IBD-associated pancreatitis is a rare entity but of great clinical importance due to its implications on the quality of life of the patients. Table 1 summarized the demographic and clinical characteristics of the four patients at the moment of their diagnosis of pancreatitis. In none of the patients was a history of chronic alcohol consumption identified. Among the previously mentioned cases, there were important differences with respect to the etiology of their pancreatitis, which was common to observe in other reported retrospective studies. According to worldwide literature, there exist diverse causes of pancreatitis as mentioned in Table 2. It is important to recognize that based on our database of 398 patients with IBD, 4 patients were identified with pancreatitis. Among the 398 patients, 86.9% were receiving mesalazine, 59.3% steroids and 32.1% azathioprine. In other words, only 0.86% of patients with mesalazine, 1.27% with steroids and 0.78% with azathioprine developed pancreatitis. Therefore, it would not be justified to prohibit the use of these pharmacologic treatments established for the management of IBD because of a possible risk of developing pancreatitis. This observation is concordant with the conclusion of a systematic revision which reports that the association between azathioprine and pancreatitis is significant, the associated incidence is still very low (2%). The manifestations of pancreatitis among the 4 cases was difficult to diagnose except in the first case, where the association between the beginning of immune-modulating therapy with azathioprine triggered the clinical presentation and its withdrawal resulted in the resolution of the acute inflammation. The three additional cases clearly represent the diagnostic challenge that any treating doctor must confront at the moment of having a patient with IBD and pancreatitis. Other causes of pancreatitis were excluded through an adequate clinical investigation. The interdisciplinary unit of the UH-FSFB evaluated these cases through its corresponding groups of gastroenterology, coloproctology, pathology, nutrition and metabolic support. Since worldwide literature report that the main treatment of the AP does not vary than that of a patient without IBD we will refrain from extending our analysis of it in all our cases. *Case 1)* In the first case, a causative agent of the AP was identified and confirmed after the withdrawal of azathioprine. Thiopurines are the main drugs associated with AP, generally presenting within the first month of its utilization. Its reported incidence varies between 3-5% and it has been mostly associated with CD, as it occurred in our patient. Particularly, the female gender has been reported to have a 3-4 greater risk of presenting azathioprine associated thiopurines than males. Additionally, current CD patients also present an elevated risk. The patient in our case required hospitalization in the ICU because of the gravity of his pancreatitis, which later on resolved with conservative therapy. He was later on discharged with vedolizumab since he had not achieved clinical remission of his CD with infliximab. Potentially, a genetic exam could be done, since it has been identified that patients heterozygous for the rs2647087 gene have a greater risk of developing pancreatitis secondary to the administration of thiopurines. *Case 2)* On the other hand, in the second clinical case the main diagnostic suspicion was that of an AP secondary to a biliary calculi due to the abrupt clinical presentation it presented with, the early autolimited inflammation and the elevation of pancreatic enzymes. However the presence of biliary lithiasis was not able to be identified in the abdominal ultrasonography. It is important to highlight that it was not possible to properly classify the severity of the AP because the patient refused that certain laboratory exams be

taken. Taking this into consideration and the follow up evaluation of the patient, a presumptive diagnosis of idiopathic AP secondary to the IBD-associated inflammation of the pancreas as described in literature. This entity is reported to have an approximate incidence that varies between 1.5-33%. *Case 3)* The third case represents the patient with the longest duration of an active IBD, as well as the patient with the greatest number of comorbidities among the four cases. As mentioned in literature, the follow up was done with imaging which were essential to know the pancreatic alterations that oriented towards the diagnosis of chronic pancreatitis. In addition, published studies helped us establish that the pancreatic exocrine insufficiency was secondary to the IBD. The continuous analysis of the interdisciplinary unit of IBD sought to discard differential diagnosis such as autoimmune pancreatitis. However, the patient had a poor response to a steroid empiric therapy and her laboratory results did not meet criteria for a definitive diagnosis. It was proposed that follow up would be continued with biopsies through echo-endosonographies in order to determine in the future the behavior of the pancreatopathy and adjust the administration of pancreatic enzymes according to her needs. *Case 4)* The fourth case was the most discussed and debated case within the interdisciplinary unit of our institution. This was due to the fact that the patient seemed to be "converting" to CD as seen on the endoscopic findings and duodenal biopsy results. The management of the AP was satisfactory as the patient was able to gain clinical remission. The pancreatic involvement due to structural alterations of either the pancreatic ducts or the duodenal ampulla have already been documented. Under these considerations, the patient was discharged and managed with adalimumab, corticosteroids, mesalazine and endoscopic vigilance with new histologic biopsies in order to establish a possible "conversion" to CD.

***Keywords:*** Inflammatory bowel disease, extra-intestinal manifestations, pancreatitis

***Table 1.*** Demographic and clinical characteristics of the 4 patients with IBD at the moment of diagnosis of pancreatitis

| Case | Age at IBD Diagnosis | Sex | Diagnosis / Montreal Classification | Time of IBD Diagnosis | Pharmacologic treatment for IBD | Serum Amylase** | Serum Lipase*** | Diagnosed Pancreatopathy | Complications | Requirement of IBD related surgical intervention | Recurrence of Pancreatitis |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 53 years | M | CD / A3,L3,B2 | 3 years | 1. Oral Mesalazine 2. Azathioprine | 134 | 438 | Drug induced AP | NO | NO | NO |
| 2 | 40 years | F | UC / A2,E2,S3 | 3 years | 1. Oral Mesalazine 2. Intrarectal Budesonide 3. Adalimumab | 158 | 513 | Idiopathic AP | NO | NO | NO |
| 3 | 68 years | F | UC / A3,E3,S3 | 9 years | 1. Steroid 2. Ciprofloxacin 3. Metronidazol | - | - | Chronic Pancreatitis | NO | NO | SI |
| 4 | 17 years | M | CD / A2, L2+L4, B2 | 2 years | 1. Oral Mesalazine 2. Steroid | 282 | 673 | Idiopathic AP-suspected structural alteration vs CD "conversion" | NO | NO | NO |

F; female, M; male, UC; ulcerative colitis, CD; Crohn's disease, AP; acute pancreatitis, NV; normal value, Montreal Classification-L; localization, B; behavior, S; severity (Satsangi, Silverberg, Vermeire, & Colombel, 2006).

**Amylase Serum Normal Value: 60-180 u/L

***Lipase Serum Normal Value: 10-140 u/L

***Table 2.*** Main pancreatitis etiologies described in IBD

| | Biliar | Duodenal structural alteration | Drugs | Autoimmune | Idiopathic |
|---|---|---|---|---|---|
| Percentage according to etiology or prevalence of pancreatitis in patients with IBD | Percentage Biliary calculi 15-21% (Ramos et al., 2016) | Percentage 1.5-15% (patients with CD) (Ramos et al., 2016) | Percentage Thiopurines 15-69% (Ramos, 2016) Mesalamine 9-33% (Ramos et al., 2016) | Prevalence 0.4% in patients with IBD (Ramos et al., 2016) | Percentage 10-33% (Ramos et al., 2016) |
| Epidemiology | Females=Males (Ramos et al., 2016) | Patients with Crohn's Disease | Females >Males (Bermejo et al., 2008) Greater risk in smokers (Bermejo et al., 2008), pediatric patients and elderly (Antonini et al., 2016) | Male:Female 2:1 (Type 1) Male:Female 1:1 (Type 2) (Antonini et al., 2016) | Male>>Female (Antonini et al., 2016) |
| Age of Pancreatitis Presentation in IBD | 25-45 years (Kratzer et al., 2005) | Average age: 24 years (Yung et al., 2005) | All ages (Antonini et al., 2016) | 60-65 years (Type 1) (Antonini et al., 2016) | 20-40 years (Antonini et al., 2016) |
| Clinical Presentation | Jaundice Abdominal pain | Superior abdominal pain Gastroduodenal obstruction symptoms (Parente et al., 2007) | Abdominal pain | Jaundice Absence of abdominal pain (Type 1) Severe abdominal pain, diarrhea (Type 2) (Tsen et al., 2016) | Abdominal pain Pancreatic exocrine insufficiency (Antonini et al., 2016) |
| Laboratory | Pancreatic enzyme elevation | Pancreatic enzyme elevation | Pancreatic enzyme elevation | Pancreatic enzyme elevation IgG4 Elevation (Type 1) Normal IgG4 (Type 2) Detection of gamma-globulins, IgG, antinuclear antibodies, rheumatoid factor, carbonic anhydrase, and lactoferrin (Antonini et al., 2016) | Pancreatic enzyme elevation Normal IgG4 |
| Images | Presence of echogenic structures with acoustic shadows (Parente et al., 2007) | Duodenal stenosis (Antonini et al., 2016) | Normal pancreas or edematous pancreatitis (Antonini et al., 2016) | Pancreas thickening (diffuse, focal, or segmental) Focal or irregular narrowing seen in ERCP (Maruyama et al., 2013) | Normal pancreas or edematous pancreatitis Diffuse pancreatic thickening Narrowing of the main pancreatic duct No calcifications or pseudocysts (Antonini et al., 2016) |
| Key Points | Patients with CD have double the risk of developing biliary calculi. There is no association between biliary calculi formation and UC (Fousekis, 2018) Risk factors include: previous intestinal resection (>30 cm), edad (>50 years), ileal-colonic compromise, IBD duration (>10 years), total parenteral nutrition (Ramos et al., 2016) | Evidence based on few case reports | Presents within a few weeks after the consumption of drugs and quickly resolved after the drug is discontinued (Fousekis et al., 2018) | Dramatic response to steroids | Exclusion of other causes of pancreatitis (drugs, lithiasis, alcohol, etc.) (Antonini et al., 2016) |

Modified table adapted mainly from Antonini et al., 2016.

***PP-551***

## *Anti-saccharomyces cerevisiae antibodies*

**Alliouch-Kerboua Taha Amina[1], Alliouch-Kerboua Cherifa[2], Gadiri-Meriche Sabiha [1], Meriche Hacene [1]**

*[1]Department of Immunology, Annaba University Hospital Center, Annaba, Algeria*
*[2]Department of Biochemistry, Badji Mokhtar University, Annaba, Algeria*

***Background/Aims:*** Inflammatory bowel disease (IBD) is a group of idiopathic diseases characterized by chronic inflammation of the intestine. This group corresponds to two major diseases: Crhons disease (CD) and ulcerative colitis (UC). It is an affection of the young adult. These two conditions have distinct clinical and pathological features but there is also some overlap. Sometimes it is difficult to differentiate between MC and UC, the differential diagnosis between the two is based primarily on two criteria: the location and anatomo-pathological form of the lesions. Various serological markers are used in this diagnosis including anti-*Saccharomyces cerevisiae* antibodies (ASCA) and anti-neutrophil cytoplasmic antibodies (ANCA). The combination of these two antibodies gives a better serological result. In our study, our goal is to search for ASCA and ANCA in the serum of 31 patients suspected of having IBD.

***Materials and Methods:*** A retrospective descriptive study was performed on 31 subjects whose average age was 35±2 years. The sex ratio was 1.21 (01 male / 01 female). The search for ASCA was performed by the ELISA technique and the search for ANCA by indirect immunofluorescence (IFI).

***Results:*** In our study, we found among the 31 sera tested, 13 sera positive of which: 11 (35.48%) sera were ASCA-IgA and 9 (29,03%) sera were ASCA-IgG. For ANCA, we have found 16 negative cases and 2 p-ANCA sera. Diarrhea is the leading reason for consultation, followed by abdominal pain. For extra digestive manifestations, joint damage comes first.

***Conclusion:*** Although the diagnosis of IBD is based primarily on the clinical, the barium radioscopy, the endoscopy and the histology, the differential diagnosis between the disease of Crohns and ulcerative colitis (UC) sometimes remains delicate. The combination of ANCA and ASCA is a useful tool of discrimination between these pathologies, less expensive and less invasive.

***Keywords:*** Inflammatory bowel disease, anti-*Saccharomyces cerevisiae* antibodies, anti-neutrophil cytoplasmic antibodies

---

***PP-552***

## *The application method of hemostasis for procedure-related colonic bleeding*

**Sergey Skridlevskiy, Viktor Veselov, Olga Ozerova**

*State Scientific Center of Coloproctology, Moscow, Russian Federation*

***Background/Aims:*** Hemorrhage is the most common adverse event following invasive endoscopic procedures within the colon. Many methods of endoscopic hemostasis are in wide use and the question of choice of endoscopic hemostasis technique is an integral and very important aspect of the daily endoscopic practice. The aim of the study was to analyze the new variant of the application method of hemostasis capabilities for procedure-related colonic bleeding.

***Materials and Methods:*** Patients with intra-procedural immediate colonic bleeding in whom the new variant of the application method of hemostasis was applied collected prospectively in our Center from 2016 to 2018. The bleeding area was irrigated by the 10-30 mL of the passive local hemostatic agent (1% fluid of the incomplete silver salt of polyacrylic acid containing silver nanoparticles) delivered through the working channel of the endoscope with the exposure time 1-2 min. The hemostatic agent provides the forming of the local polymethacrylate membrane subsequently replaced by fibrin and does not affect the function of systemic hemostasis. In case of continued bleeding additional techniques of hemostasis was carried out. Technique-related

systemic side effects, visualization of the source of bleeding, convenient field, time of hemostatic effect, continued bleeding, need additional hemostasis, the effectiveness was analyzed. For statistical analysis, Fisher's two-tailed exact test was used.

***Results:*** Included 22 cases of the procedure-related immediate colonic bleeding (9 – biopsy-related, 13 – polypectomy-related). During the formation of the local polymethacrylate membrane hemostasis occurred in 63.64% (14) cases with the formation of a smooth elastic surface. In 36.46% (8) cases the procedure of the application aborted after 2 min and an additional method of hemostasis was done. In these cases, the transparent elastic membrane provided a good visualization of the source of bleeding. The overall effectiveness of this applicational method for the procedure-related immediate colonic bleeding group was 63.6%, for biopsy-related bleeding-100%, for polypectomy-related bleeding – 38.5%. Additional techniques of hemostasis (mechanical or/and thermal hemostatic methods) were needed significantly more often in intra-polypectomy immediate bleeding cases ($F=0.00552$, $p<0.05$). Cases of repeated bleeding and side effects were not registered by us.

***Conclusion:*** The effectiveness of the application method for hemostasis with the passive local hemostatic agent in this variant of the methodological approach is 100% for biopsy-related bleeding. Methodological approaches of this application method for stopping polypectomy-related bleeding require further development.

***Keywords:*** Endoscopic, bleeding, hemostasis

---

***PP-553***

## *Evaluating and comparing the efficacy of 14 days bismuth and tetracycline-containing regimen 14 days concomitant therapy for first line helicobacter pylori eradication*

**Arash Kazemi[1], Ali Rahimi Petrudi[2], Iradj Maleki[1], Mohammad Valizadeh Toosi[1], Zohreh Bari[1]**

*[1] Gut and Liver Research Center, Mazandaran University of Medical Sciences, Sari, Iran*
*[2] Mazandaran University of Medical Sciences, Sari, Iran*

***Background/Aims:*** Helicobacter pylori (HP) is associated with chronic gastritis and peptic ulcer disease. HP infection is sometimes difficult to treat, and successful treatment requires two or more antimicrobials, and different regimens with varying degrees of effectiveness and various side effects. The purpose of this study was to compare the effect of 14 days bismuth and tetracycline-containing Regimen with 14 days concomitant therapy for Helicobacter pylori eradication

***Materials and Methods:*** This study was a randomized clinical trial on 318 patients with dyspepsia with Helicobacter pylori eradication indicating in 164 patients in 14 days bismuth and tetracycline-containing Regimen group and 164 patients in concomitant group. In the first group, patients received 4 mg of pantoprazole 40 mg, amoxicillin 1 g every 12 hours, bismuth 425 mg, and tetracycline 500 mg every six days for 14 days (PATB regimen) and in the second group of 40 pentaprazole 40 mg Gram, amoxicillin 1 g, clarithromycin 500 mg and metronidazole 500 mg every 12 hours for 14 days (PAMC regimen). Eighty weeks after treatment, Helicobacter pylori eradication was evaluated. Demographic data of patients and also the effectiveness of therapeutic regimens on HP eradication and side effects were investigated.

***Results:*** In PATB Regimen, 48.2% were male and 61.6% were female. In PAMC group, 48.2% were male and 51.8 were female. The mean age of the patients in PATB group and the PAMC group was 46.41±12.21 and 46.25±14.60, respectively. There was no significant difference in the history of drug using of NSAIDs, history of gastrointestinal bleeding and smoking history ($p=0.278$, $p=0.735$ and $p=0.404$ respectively). The rate of Helicobacter Pylori eradication was 92.7% in PATB Regimen and 89.4% in PAMC group ($p=0.706$). 14-days PATB Regimens and 14-day PAMC therapy did not cause complications in 71.9% and 65.8% respectively ($p=0.194$). The most commonly observed complications in PATB Regimens were weakness (8.5%) and abdominal pain (9.1%), which was significantly higher than the PAMC group. In14-day PAMC Regimens, there was a high incidence of bitter (18.9%), which was significantly higher than 14-day PATB Regimens. There was no statistically significant difference between the other drug side effects ($p>0.05$). 83% and 79.3% of the patients treated with PATB regimens and PAMC group had excellent drug compliance respectively.

***Conclusion:*** Both 14-days PATB Regimens and a 14-day PAMC regimen were effective in Helicobacter pylori eradicating and there were not significantly difference in terms of side effects. Therefore, with no significant difference in terms of overall eradication rate and taking into account the amount of drug complications in patients, any of the regimens can be used in patients.

***Keywords:*** Helicobacter pylori eradication, bismuth, tetracycline, concomitant

***PP-554***

## *Gastric sarcoidosis: A rare condition revealing a multisystemic disease*

**Marwa Ghribi, Imen Abdellali, Taieb Jomni, Syrine Bellakhal, Lamia Ben Yaghlen, Zeineb Teyeb, Mohamed Hedi Doggui**

*Fsi Departement of Gastroenterology*

The diagnosis of gastric sarcoidosis is challenging for practionners especially when it is not associated with other organ involvement. We report a case of gastric granulomatosis revealing systemic sarcoidosis with quiescent lung disease. A 30-year-old man, active smoker (15 pack-years) and alcoholic, was suffering from a 4-year history of anorexia, epigastric pain, vomiting and a significant weight-loss (15 kg during 6 months). He had neither chronic toxic exposure, nor drug intake and nor raw milk consumption. The patient had a reasonable general condition. The temperature was 37°C. The abdomen was tender to deep palpation of the epigastria. There were no splenomegaly nor hepatomegaly nor palpable masses. The skin examination revealed a frontal alopecia, loss of lashes and depletion of eyebrow. The cardiopulmonary examination was unremarkable except a diminution of respiratory sounds through auscultation. A palpable inguinal lymphoadenopathy was noticed. Blood count showed no abnormalities. C-reactive protein and sedimentation rate were normal. Serum protein electrophoresis showed a slight hypoalbuminia (34 g/L) with no hypergammaglobulinemia. Serum and urine calcemia were also normal. A body CT scan showed slight heterogeneous hepatosplenomegaly, thickening of gastric fundus and multiple millimetric adenopathies around the hepatic hilus, ileocaecal junction, and in the lesser sac. There were no significant mediastinal or pulmonary abnormality. An Upper endoscopy was performed revealing a motionless and congestive gastric mucosa as well as a fundic atrophy. Gastric biopsy showed epithelioid granulomas without necrosis nor malignant infiltration. Given these results, a systemic granulomatosis predominantly involving the stomach was suspected and further investigations were lunched. We mainly raised the hypothesis of Crohn's disease, tuberculosis, lymphoma and sarcoidosis. Stains for acid-fast bacilli, sputum cultures for acid-fast bacilli, a Heaf test were all negative and quantiFERON-TB test was negative. Beta-2 microglobulin and angiotensin-converting enzyme were normal. The colon, the cavum and the retina were explored without finding any granuloma nor specific abnormalities. A surgical biopsy of the inguinal lymphnode showed epithelioid granulomas without necrosis. Although the patient had no respiratory symptoms and no radiologic pulmonary lesions, bronchial biopsy was performed and concluded to a non-necrotizing granulomatous involvement. On the basis of clinical history, physical examination, imaging and histological findings, the diagnosis of a systemic sarcoidosis with gastrointestinal onset was made. The patient received a course of oral methylprednisolone (60 mg daily) with marked improvement: weight gain and appetite increase.

***Keywords:*** Gastric sarcoidosis, granulomatosis, steroids

***PP-555***

## *The quality of life of inflammatory bowel disease patients on biological therapy –Single centre experience*

**Brigita Smolovic[1], Olivera Sekulic[1], Milos Lukic[1], Stefan Bojovic[2]**

*[1]Clinical Centre of Montenegro, Podgorica, Montenegro*
*[2]University Of Montenegro School of Medicine, Podgorica, Montenegro*

***Background/Aims:*** Inflammatory bowel disease (IBD) is associated with significant impairment of patient's health-related quality of life. The aim of the study was to explore impact personality factors and clinical characteristics on patients who take biologic therapy (intravenous) and have IBD.

***Materials and Methods:*** From January to May 2019, during regular visits due to receiving therapy, patients were examined in the referent Medical Center for IBD in Montenegro. All examined patients were at least half a year on this kind of therapy. This study involved 75% of Montenegrin population who take biologic therapy and have IBD. Patients were filling in the questionnaires by themselves, and at the same time we were collecting data about demographic and clinical characteristics. Estimation of clinical activity of IBD at that moment was examined with two scores (Partial Mayo Scoring Index Assessment for Ulcerative Colitis Activity and Modified Harvey Bradshaw Index Assessment for Crohn's Disease Activity). The health-related quality of life was estimated using short questionnaire about quality of life in these patients – SIBDQ. SIBDQ scores varies from 10 to 70, where the higher score refers to better well-being. Results were shown in the tables and compared between each other using appropriate statistical tests.

| Variable | B | St error | T | p-value | R-Square |
|---|---|---|---|---|---|
| **Systemic domain** | | | | | .504 |
| Sleeping problems | -2.138 | .414 | -5.166 | <0.001 | |
| Disease activity | -1.484 | .340 | -4.362 | <0.001 | |
| Type of the disease | -1.297 | .480 | -2.701 | .008 | |
| Age (≤ 30 y, > 30y) | 759 | .629 | 1.208 | .231 | |
| Disease duration | -0.79 | .439 | -.180 | .858 | |
| **Social domain** | | | | | .242 |
| Disease activity | -1.750 | .439 | -3.988 | <0.001 | |
| Sleeping problems | -1.051 | .534 | -1.968 | .05 | |
| Type of disease | -.078 | .619 | -.126 | .90 | |
| Age (≤ 30 y, > 30y) | -.030 | .81 | -.038 | .970 | |
| **Bowel functioning** | | | | | .216 |
| Disease activity | -1.547 | 518 | -2.987 | .004 | |
| Type of disease | -1.550 | .731 | -2.119 | .03 | |
| Gender | -1.167 | .609 | -1.918 | .05 | |
| Sleeping problems | -1.565 | .630 | -2.484 | .15 | |
| Smoking | -1.138 | .740 | 1.539 | .128 | |
| **Emotional functioning** | | | | | .440 |
| Sleeping problems | -3.239 | .576 | -5.620 | <0.001 | |
| Disease activity | -1.944 | .474 | -4.104 | <0.001 | |
| Gender | -1.647 | .557 | -2.959 | .004 | |
| Type of disease | -1.388 | .669 | -2.076 | .041 | |
| Surgical treatment | -1.095 | .760 | -1.441 | .153 | |
| **SIBDQ** | | | | | .469 |
| Sleeping problems | -7.992 | 1.598 | -5.000 | <0.001 | |
| Disease activity | -6.726 | 1.314 | -5.118 | <0.001 | |
| Type of disease | -4.313 | 1.855 | -2.325 | .023 | |
| Gender | -3.406 | 1.544 | -2.206 | .03 | |
| Surgical treatment | -3.756 | 2.108 | -1.782 | .08 | |
| Smoking | -1.046 | 1.876 | -.558 | .579 | |

| | | Systemic Mean rank | Social Mean rank | Bowel Mean rank | Emotional Mean rank | SIBDQ Mean±SD |
|---|---|---|---|---|---|---|
| **Type of the disease** | | | **P=0.041** | | | |
| Ulcerative Colitis | (48) | 10.92±2.42 | 11.56±3.07 | 17.73±3.44 | 16.79±3.60 | 57.0±10.59 |
| Crohn's disease | (42) | 10.76±2.55 | 12.74±2.15 | 17.74±2.87 | 17.17±3.26 | 58.40±8.83 |
| **Age in 1st diagnosis in years** | | | | | | |
| 0-10 | (1) | 8.0±0 | 14±0 | 19.0±0 | 19.0±0 | 60±0 |
| 11-19 | (15) | 10.6±3.04 | 11.6±3.81 | 17.33±3.10 | 16.73±3.86 | 56.26±12.29 |
| 20-39 | (48) | 11.06±2.50 | 12.70±2.19 | 18.39±2.70 | 17.04±3.48 | 59.20±8.56 |
| 40-69 | (26) | 10.69±2.05 | 11.23±2.76 | 16.69±3.81 | 16.88±3.25 | 55.5±10.34 |
| **Gender** | | | | | | |
| Male | (51) | 10.90±2.48 | 12.20±2.56 | 18.12±2.97 | 17.55±3.21 | 58.76±9.27 |
| Female | (39) | 10.77±2.49 | 12.00±2.97 | 17.23±3.39 | 16.21±3.60 | 56.21±10.34 |
| **Disease activity** | | **P<0.000** | **P<0.000** | **P<0.000** | **P<0.000** | **P<0.000** |
| Remission | (19) | 12.47±1.90 | 13.53±1.02 | 190±1.80 | 19.16±2.27 | 64.16±5.46 |
| Mild | (49) | 11.12±2.13 | 12.73±1.75 | 18.2±2.92 | 17.22±3.04 | 59.31±7.41 |
| Moderate | (22) | 8.82±2.34 | 9.50±3.73 | 15.55±3.65 | 14.50±3.67 | 48.36±10.91 |
| Sever | (0) | - | - | - | - | - |
| **Age** | | **p=0.031** | | | | |
| ≤ 30y | (22) | 9.86±3.08 | 11.91±3.78 | 17.05±3.51 | 16.36±2.17 | 55.18±12.29 |
| > 31 | (68) | 11.16±2.17 | 12.18±2.33 | 17.96±3.05 | 17.16±3.22 | 58.46±8.78 |
| **Disease duration in years** | | | | | | |
| Less than 5 y | (48) | 10.80±2.65 | 12.14±2.92 | 17.51±3.48 | 16.73±3.55 | 57.18±10.85 |
| 5 y and more | (41) | 10.90±2.26 | 12.07±2.62 | 18.00±2.78 | 17.24±3.31 | 58.22±8.42 |
| **History of smoking** | | | | | | |
| Yes | (20) | 10.60±262 | 12.35±1.84 | 18.35±2.66 | 16.55±3.19 | 57.85±8.27 |
| No | (70) | 1091±2.44 | 12.04±2.95 | 17.56±3.30 | 17.09±3.51 | 57.60±10.22 |
| **Hospitalization in last year** | | | | | | |
| Yes | (31) | 10.48±2.51 | 11.65±3.37 | 17.71±3.48 | 16.90±3.66 | 56.74±10.62 |
| No | (59) | 11.03±2.44 | 12.36±2.32 | 17.75±3.03 | 17.00±3.34 | 58.14±9.37 |
| **Surgical treatment** | | | | | | |
| Yes | (23) | 11.22 ±2.33 | 12.83±1.97 | 18.43±1.75 | 17.87±3.44 | 60.35±6.36 |
| No | (67) | 10.72±2.52 | 11.87±2.92 | 17.49±3.51 | 16.6±3.40 | 56.73±10.59 |
| **Sleeping problems** | | **P<0.0001** | **p=0.001** | **p=0.002** | **P<0.0001** | **P<0.0001** |
| Yes | (38) | 9.31±1.75 | 11.055±2.95 | 16.52±3.49 | 14.73±3.23 | 51.63±8.32 |
| No | (52) | 11.96±2.31 | 12.88±2.28 | 18.61±2.61 | 18.59±2.56 | 62.05±8.35 |

***Results:*** It was examined 90 patients, where 48 of them had Ulcerative Colitis (UC) and 56.7% were males. Average age was 41.24±13.57. Comparing the descriptive, clinical and social characteristics of patients with UC and CD, significant statistic difference at the surgical treatment in patients with CD (p<0.001) is found, as well as the difference in disease activity between these patients (p=0.004). (Table 1). Patients with higher disease activity and those who had sleeping problems, had

lower quality of life. Patients with UC had lower social scores, while younger patients had lower systemic score (Table 2). Higher disease activity was a significant predictor of decreased social, systemic, bowel, emotional and overall scores. Problem with sleeping wasn't a significant predictor only for bowel, and type of disease only for social scores. Gender is significant predictor for emotional, bowel and SIBDQ. Surgical treatment was a significant predictor of decreased overall score (Table 3).

***Conclusion:*** Younger patients, patients with sleeping problems, with active disease and patients with UC have shown a low score for the health-related quality of life.

***Keywords:*** Health-related quality of life, inflammatory bowel disease, biologic therapy

| Characteristics | Ulcerative colitis No(48) | % | Crohn's disease No (42) | % | Total No (90) | % | P value |
|---|---|---|---|---|---|---|---|
| | Mean±SD | | Mean±SD | | Mean±SD | | |
| Age | 43,52±13.95 | | 38.64±12.8 | | 41.24±13.57 | | .089 |
| Age at 1st diagnosis (in years) | | | | | | | .221 |
| 11-19 | 0 | 0 | 1 | 2.4 | 1 | 1.1 | |
| 20-39 | 8 | 16.7 | 7 | 16.7 | 15 | 16.7 | |
| 40-64 | 23 | 47.9 | 25 | 59.5 | 48 | 53.3 | |
| ≥65 | 17 | 35.4 | 9 | 21.4 | 26 | 28.9 | |
| Gender | | | | | | | .204 |
| Male | 24 | 50.0 | 27 | 64.3 | 51 | 56.7 | |
| Female | 24 | 50.0 | 15 | 35.7 | 39 | 43.3 | |
| Disease activity | | | | | | | **0,004** |
| Remission | 3 | 6.25 | 16 | 38.1 | 19 | 21.1 | |
| Mild | 31 | 64.6 | 18 | 42.9 | 49 | 54.4 | |
| Moderate | 14 | 29.16 | 8 | 19.0 | 22 | 24.4 | |
| Severe | 0 | 0 | 0 | 0 | 0 | 0 | |
| Age | | | | | | | .066 |
| ≤ 30 | 8 | 16.7 | 14 | 33.3 | 22 | 24.4 | |
| > 30 | 40 | 83.3 | 28 | 66.7 | 68 | 75.6 | |
| Disease duration in years | | | | | | | .671 |
| < 5 | 24 | 51.1 | 24 | 57.1 | 48 | 53.9 | |
| ≥ 5 | 23 | 8.9 | 18 | 42.9 | 41 | 46.1 | |
| History of smoking | | | | | | | .209 |
| Yes | 8 | 16.7 | 12 | 28.6 | 20 | 22.2 | |
| No | 40 | 83.3 | 30 | 71.4 | 70 | 77.8 | |
| Hospitalization in last year | | | | | | | 1.0 |
| Yes | 17 | 35.4 | 14 | 33.3 | 31 | 34.4 | |
| No | 31 | 64.6 | 28 | 66.7 | 59 | 65.6 | |
| Surgical treatment | | | | | | | **<0,001** |
| Yes | 4 | 8.3 | 19 | 45.2 | 23 | 25.6 | |
| No | 44 | 91.7 | 23 | 54.8 | 67 | 74.4 | |
| Problem with sleeping | | | | | | | .245 |
| Yes | 23 | 47.9 | 15 | 35.7 | 38 | 42.2 | |
| No | 25 | 52.1 | 27 | 64.3 | 52 | 57.8 | |

***PP-556***

## *Problem diagnostic a patient with lymphadenitis tuberculosis and chylous ascites*

**Amie Vidyani, Iswan A Nusi, Poernomo Boedi Setiawan, Herry Purbayu, Titong Sugihartono, Ummi Maimunah, Ulfa Kholili, Budi Widodo**

*Division of Gastroenterology-Hepatology, Dr. Soetomo Academic Hospital, Airlangga University, Surabaya, Indonesia*

***Background/Aims:*** Tuberculosis is an important concern for doctor in tropical world. Extra Pulmonary Tuberculosis (EPTB) consists about 20% of all tuberculosis. It is very challenging the diagnosis of EPTB, because the sample obtained from relatively inaccessible sites.

***Materials and Methods:*** We reported a 20-year-old male patient with lymphadenitis tuberculosis and chylous ascites.

***Results:*** A 20-year-old male patient with chief complain of abdominal enlargement for one month. He also complained decrease of appetite, night sweat, and decrease of body weight. We found lymphadenopathy at sinistra supraclavicula. The concistency of the lymph node are soft and without pain. We found abdominal ascites and edema at lower extremity. Laboratory examination showed anemia (Hb 10.1 g/dL), severe hypoalbuminemia (1.7 mg/dL), 3 methode of HIV test are negative, and LDH level was normal (408 U/L), and serum ADA (adenosine deaminase was normal (13.4 U/L). Chest X ray was normal (no fibroinfiltrat). We performed open biopsy on the supraclaicula lymph nodes and the result was tuberculosis. Abdominal ultrasonography (US) showed multiple paraaorta lymphadenopathy suggesting malignant lymphoma and ascites. Abdominal CT scan with contrast showed malignant lymph adenopathy (malignant lymphoma) in paraaorta, paracaval, and para iliacal. We puncture the ascites fluid and found milky ascites (chylous ascites). We performed FNAB CT scan guide for paraaorta lympadenopathy and the results was impressing inflammatory sarcoma with differential diagnosis malignant lymphoma. The asciets fluid cytology was not founded malignant cell, and ascies fluid ADA levels was normal (5 U/L). Based on the clinical features of malignant lymphoma we started give chemotherapy for the patient, but the condition was not getting better. The condition of the patient was getting better after received antituberculosis drug.

***Conclusion:*** As the diagnosis remains challenging, tuberculosis should be kept in mind whenever non spesific findings occur. The histopathology examination is a gold standard for diagnosis of lymphadenitis tuberculosis.

***Keywords:*** Tuberculosis, ascites, chylous

---

***PP-557***

## *Cost-effectiveness analysis of rotavirus vaccination in Romania*

**Laura Savu, Corina Pienar, Ruxandra Mare, Liviu Pop**

*Department of Pediactrics, University of Medicine and Farmacy "Victor Babes" Timisoara, Timisoara, Romania*

***Background/Aims:*** Acute gastroenteritis is a leading cause of pediatric mortality and morbidity. Worldwide, Rotavirus accounts for 40% of hospitalizations for acute gastroenteritis among children < 5 years of age. The implementation of Rotavirus vaccination was followed by a decrease in the burden of Rotavirus gastroenteritis. Although the WHO recommends the inclusion of Rotavirus vaccination in the National Immunization Program, Romania has not included it yet. We aimed to evaluate the cost-effectiveness of Rotavirus vaccination in Romania.

***Materials and Methods:*** Firstly, we conducted a retrospective analysis of health care costs associated with Rotavirus gastroenteritis in our Pediatric Clinic over a period of 24 months. The average Rotavirus associated cost per patient was 300 USD. The cost of Rotavirus vaccination was averaged at 100 USD per child. Using a Rotavirus vaccination efficacy of 85% and an incidence of Rotavirus infection of 95% we performed a cost-effectiveness analysis of Rotavirus vaccination in our population. We used Disability-Adjusted Life Years (DALYs) to quantify the burden of Rotavirus infection from its associated mortality and morbidity

***Results:*** Our cost-effectiveness analysis revealed that Rotavirus vaccination reduces DALYs, and is associated with lower health care costs.

***Conclusion:*** The implementation of a nation-wide Rotavirus vaccination in Romania is cost-effective, alleviating the burden of this prevalent pediatric disease and saving money for the Health Care System.

***Keywords:*** Rotavirus, gastroenteritis, vaccination, cost-effectiveness

***PP-558***

## *Systemic lupus erythematosus with cutaneous involvement associated with dermatitis herpetiformis*

**Alliouch-Kerboua Taha Amina, Gadiri-meriche Sabiha, Meriche Hacene**

*Department of Immunology, Annaba University Hospital Center, Annaba, Algeria*

***Background/Aims:*** Systemic lupus is a non-specific organ autoimmune disease. Lupus is of multifactorial etiology, and evolves spontaneously by successive shoots interspersed with remissions. Biologically, the disease is characterized by the production of multiple autoantibodies against the constituents of the nucleus, some of which are anti-native DNA (or the anti-Sm) being characteristic and specific of the disease. Several autoimmune conditions may be associated with lupus. Nevertheless, the association of celiac disease (CD) and Systemic lupus erythematosus is rare. The aim of this work is to report the case of a patient with an association between systemic lupus erythematosus (SLE) and celiac disease (CD).

***Materials and Methods:*** We report the case of a 42-year-old patient hospitalized in internal medicine. The patient has an SLE flare with: cutaneous involvement (malar rash), haematological involvement (lymphopenia) and renal involvement (proteinuria). She has a history of dermatitis herpetiformis. The immunoassay included: the search for anti-nuclear antibodies (ANA) by indirect immunofluorescence on HEp-2 cell section, the search for native anti-DNA antibodies by indirect immunofluorescence on Chritidiae luciliae and the search for anti-Tissue transglutaminase antibodies (anti-tTG) of IgA and IgG isotypes.

***Results:*** The immunoassay showed: the positivity of ANA with a homogeneous appearance, the presence of anti-native DNA antibodies, the positivity of anti-transglutaminase antibodies of IgA and IgG isotype.

***Conclusion:*** Among the various associations between autoimmune diseases, the association between systemic lupus erythematosus (SLE) and celiac disease (CD) is one of the least well known since it has been rarely reported so far.

***Keywords:*** Systemic lupus erythematosus, celiac disease, dermatitis herpetiformis

---

***PP-559***

## *Celiac disease in patient with unexplained infertility: A case report*

**Sandeep Goyal[1], Manjri Manjri[1], Alka Singh[2], Virender Katyal[1]**

*[1]Department of Medicine, Pt. Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak (Haryana), India*
*[2]Department of Gastroenterology and Human Nutrition, All India Institute of Medical Sciences, New Delhi, India*

***Background/Aims:*** Celiac disease (CeD) is an autoimmune enteropathy, induced due to ingestion of gluten related products. The prevalence of CeD is approximately 4-8% in women with unexplained infertility, which is quite higher than prevalence in general population i.e around 1%. Since women with CeD are more prone to develop infertility, this creates a question to screen women for CeD with unexplained infertility.

***Materials and Methods:*** In this case study, a 20-year-old female who was married for last 2 years presented with complaints of recurrent episodes of vomiting for 20 days not responding to PPIs, prokinetics and antiemetics. Her USG was normal and urinary pregnancy test (UPT) was negative. Upper GI endoscopy and duodenal mucosal biopsy was done. Serum anti-tissue transglutaminase antibody (IgA tTG-Ab) was also done as a part of CeD screening test.

***Results:*** On endoscopy, scalloped D2 folds were present. Histopathology report of duodenum biopsy showed moderate villous atrophy, increased number of intra-epithelial lymphocytes (IELs >50 lymphocytes/100 enterocytes) consistent with modified Marsh

grade 3b for CeD. Moreover, IgA tTG-Ab titres were approximately 15 times higher than normal (110.7 U/mL vs <7 U/mL). After confirmed diagnosis of CeD, she was advised gluten free diet (GFD) and was asked to follow up after 3 months. She was advised to leave all hormonal medicines for infertility treatment as other tests of infertility were normal. On subsequent visit, she had marked relief in her gastrointestinal symptoms. After only 2 months of GFD, she had missed menstrual periods and UPT was found to be positive.

***Conclusion:*** Women with CeD have higher risk of infertility, therefore it is advisable to screen women with unexplained infertility for CeD as a potential cause of infertility and to prevent further maternal complication due to it.

***Keywords:*** Celiac disease, infertility, anti-tissue transglutaminase antibody

---

***PP-560***

## *Prognostic factors for inefficacy of antihelicobacterial therapy in patients with chronic gastritis and concomitant diabetes mellitus type 2*

**Igor Skrypnyk, Tetiana Radionova**

*Ukrainian Medical Stomatological Academy, Poltava Oblast, Ukraine*

***Background/Aims:*** Due to the constantly growing levels of antibiotic resistance and poor efficacy of antihelicobacterial therapy (AHBT) among some categories of patients, including those with diabetes mellitus (DM), determination of risk factors for inefficacy of Helicobacter pylori (HP) eradication is relevant issue of modern gastroenterology aiming further optimization of treatment schemes. To determine the roles of antibiotic consumption and small intestinal bacterial overgrowth (SIBO) in prediction of AHBT inefficacy among the patients with chronic gastritis and concomitant DM type 2.

***Materials and Methods:*** 63 patients diagnosed with HP-associated chronic gastritis and concomitant DM type 2 were included (30 males and 33 females, mean age 54.3±11.2 years). We conducted the survey with assessment of antibiotic courses for the last 3 years, analysis of case histories, lactulose hydrogen breath test. All the patients were prescribed standard 10-day triple AHBT (amoxicillin, clarithromycin, pantoprazole bid). On the basis of HP antigen stool test, which was performed on the 28$^{th}$ day, two groups were formed: I (n=38) - patients with successful HP eradication; II (n=25) - who failed HP eradication.

***Results:*** In group I SIBO was initially diagnosed in 15 (39.5%), while in the II – in 20 (80%) patients. It was established that the presence of SIBO before the AHBT is associated with its negative outcomes (RR: 3.2; 95% CI: 1.375-7.447; p<0.05). In 8 (21.1%) patients of group I underwent ≥3 antibiotic courses for the last 3 years, while in the group II this number was 11 (44.0%), which has statistically significant prognostic value for AHBT inefficacy (RR: 1.82; 95% CI: 1.021-3.243; p<0.05).

***Conclusion:*** The results of the conducted research indicate that such criteria as ≥3 ABC for the last 3 years and presence of SIBO can be used as prognostic factors for inefficacy of 10-day triple AHBT in chronic gastritis patients with DM type 2.

***Keywords:*** Antihelicobacterial therapy, chrinic gastritis, diabetes mellitus, inefficacy

---

***PP-561***

## *Gastrointestinal motility is altered in the maternal immune activation rat model of schizophrenia*

**Carlos Gálvez[1], Diego Romero-Miguel[2], Yolanda López-Tofiño[1], Marta Casquero-Veiga[2], Manuel Cuño[1], Nicolás Lamanna-Rama[2], Vanessa Gómez-Rangel[2], Manuel Desco[3], María Luisa Soto-Montenegro[2], Raquel Abalo[1]**

*[1] Universidad Rey Juan Carlos, Madrid, Spain*
*[2] Instituto de Investigación Sanitaria Gregorio Marañón, Madrid, Spain*
*[3]Universidad Carlos III de Madrid, Spain*

***Background/Aims:*** Schizophrenia is a complex brain disorder and both genetic and environmental studies point to the immune system alterations to substantially increase the risk for schizophrenia onset. The largest immune organ in the body is the gastrointestinal (GI) tract, and GI comorbidities occur in schizophrenia. Our aim was to evaluate GI motility in the maternal immune activation (MIA) model, a schizophrenia-like phenotype in rodents.

***Materials and Methods:*** Pregnant Wistar rats were injected with the viral antigen poly I:C or saline at gestational day 15. Young adult male offspring (10 control, 8 MIA) were evaluated for: general GI motility by radiographic methods after barium contrast intragastric administration; and colonic propulsion by the bead expulsion test.

***Results:*** In the X-ray study, gastric emptying was not modified, but transit in both small and large intestines was slightly faster and barium-stained caecum and fecal pellets were slightly smaller and denser (dryer) in MIA than in control animals. Colonic bead expulsion was variable but tended to be also faster in MIA than in saline offspring (Figure 1).

***Conclusion:*** The MIA model show GI alterations with slightly accelerated transit in the small and large intestines. Densitometric and morphometric results suggest slight changes in fecal hydration and mechanical properties of the large intestine. Schizophrenic patients should be evaluated and treated for associated GI disorders that may occur independently of antipsychotic treatment.

***Keywords:*** Schizophrenia, colonic propulsion, rat model

---

***PP-562***

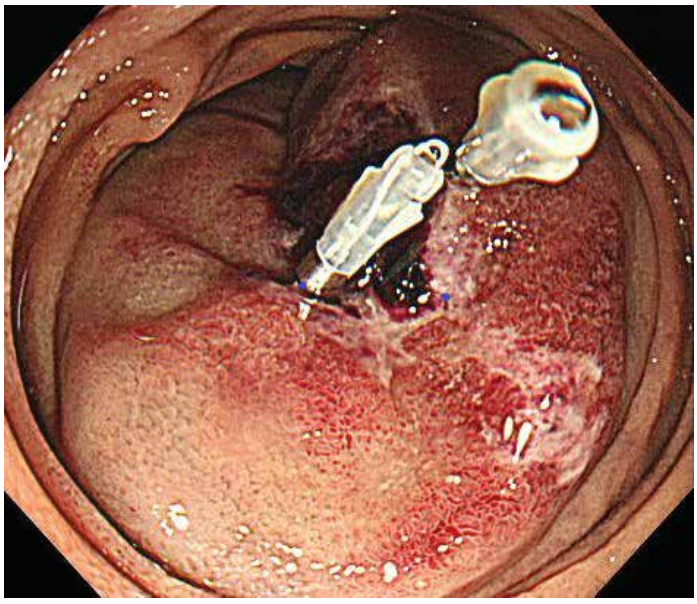
## *A case report of retroperitoneal hemorrhage after EMR for duodenal neuroendocrine tumor*

Shin Hee Lee, Seung Woo Lee

*Daejeon St. Mary's Hospital, The Catholic University of Korea, Daejeon, Korea*

Endoscopic resection is the standard treatment for duodenal neuroendocrine tumor that does not invade the muscle layer. However, there is still a risk of perforation and the possibility of a positive resection margin. We present a case of a 58-year-old male patient who had a severe complication after undergoing endoscopic resection for duodenal neuroendocrine tumor. The 58-year-old male patient who takes aspirin and clopidogrel due to total occlusion of right coronary artery and has hemodialysis underwent esophagogastroduodenoscopy. A 6x4mm sized tumorous lesion was found in the second portion of the duodenum along with gastric ulcer and duodenal ulcer. The lesion was identified as neuroendocrine tumor by biopsy. We planed EMR. The patient admitted and received duodenal EMR. During the resection, the lesion was not well lifted with saline injection. After the procedure, We performed hemoclipping for preventing perforation. The day after the procedure, in the following up EGD, we found old blood clots in stomach, and ulceration with blood clot in duodenum. Active bleeding was not found. The patient continued to complain of abdominal pain, so we examined abdominal CT and angiography to rule out ongoing hemorrhage. Definite bleeding focus was not found in the angiography. The patient's hemoglobin dropping continues, and in the following up CT, we found suspicious free hemorrhage in the patient's abdomen. The patient was transferred to surgery and underwent hematoma removal, bleeding control, and drainage. The patient's condition stayed stable and the patient was discharged after the diatery process. Endoscopic resection for NET of 1cm or less is known to be relatively safe, but severe complications may occur depending on the underlying disease and the medication being taken. In rarely cases, severe complication may occur that require surgery. So, careful observation is necessary if the patient complains of abdominal pain after the procedure.

***Keywords:*** Neuroendocrine tumor, endoscopic mucosal resection, retroperitoneal hemorrhage



***PP-563***

## *A special case of small intestine-iliopsoas fistula*

**Dongyan Yang, Yue Hu, Ling Zhang, Yuhui Tang**

*Department of Ultrasonography, China-Japan Union Hospital, Jilin University, Changchun, China*

***Introduction:*** We report a small intestine-iliopsoas fistula with unconventional intraperitoneal infection. To demonstrate the role of ultrasonography in the diagnosis and treatment.

***Case:*** Female, 33 years old, complained of abdominal pain, abdominal distension without obvious causes for 2 weeks, accompanied by intermittent high fever, left lumbago, decreased exhaust and cessation of defecation. She couldn't straighten her left leg because of lumbago. She underwent radical operation for cervical cancer one year ago and received routine external radiotherapy six months ago. Ultrasound displayed: small intestine of left lower abdomen dilated, and a small amount of exudation nearby was seen. Her left iliopsoas swelled, and gas and irregular hypoecho were seen in it, which were deformed under pressure, and contrast-enhanced ultrasound showed no contrast agent perfusion in this area. Ultrasound-guided puncture of hypoechoic area was performed, drawing yellow diluted stool-like fluid. Ultrasound diagnosis: small intestine obstruction; small intestine-iliopsoas fistula. A tube was inserted into the lesion under ultrasound-guidance to draw fluid the same as the puncture s. CT diagnosis: small intestinal obstruction; left iliopsoas abscess. Clinical diagnosis: postoperative cervical cancer; intestinal obstruction; radiation enteritis; small intestinal fistula. One week later, enterostomy was performed. In operation, a small amount of clear ascites and the adhesion were seen between small intestines, omentum majus, and incision. Four months later, return of enterostomy was performed. One day after ultrasound-guided percutaneous drainage, fever, abdominal and lumbar pain relieved. Timely enterostomy relieved the patients pain and psychological pressure of cervical cancer metastasis.

***Conclusion:*** In the diagnosis and therapy of this special intestinal fistula, Ultrasound, contrast-enhanced ultrasound, ultrasound-guided puncture and drainage play decisive role. This case fully demonstrates the convenience, safety, effectiveness and minimal invasiveness of ultrasound.

***Keywords:*** Small intestinal-fistula, ultrasound, ultrasound-guided

***PP-564***

## *Resolvin D1 is a prognostic and a diagnostic biomarker in hepatocellular carcinoma*

**Züleyha Erdin[1], Özlem Gül Utku[1], Bilal Ergül[1], Üçler Kisa[2], Dilek Oğuz[1]**

*[1] Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*
*[2]Department of Biochemistry, Kırıkkale University School of Medicine, Kırıkkale, Turkey*

***Background/Aims:*** Liver cancer is the second most common cause of cancer death and hepatocellular carcinoma (HCC) is the most common primary tumor of the liver. Hepatocellular carcinoma develops on the basis of inflammation in cirrhotic liver. The aim of our study was to determine the relationship between the decrease in resolvin D1, the lipid mediator involved at resolution, and hepatocarcinogenesis.

***Materials and Methods:*** Thirty patients with HCC, 30 patients with cirrhosis and 30 healthy subjects followed in our clinic between March 2018 and June 2019 were included in the study. Routine laboratory results of the patients were recorded from the hospital system. Blood samples were stored in the refrigerator at -80 °C. Resolvin D1 levels were measured by ELISA technique.

***Results:*** Resolvin D1 levels were 1.71±1.46 in the HCC group, 3.63±2.92 in the cirrhosis group, and 6.24±3.18 in the healthy control group. There was a significant difference between the 3 groups. Resolvin D1 levels were lower in the HCC group than in the cirrhotic group and in the cirrhotic group compared to the healthy control group. In our study, resolvin D1 level was negatively correlated with α-fetoprotein (AFP) level and tumor stage.

***Conclusion:*** Reduction of lipid mediators involved in resolution increases the pro-inflammatory cytokines involved in the pathogenesis of hepatocellular carcinoma. Decrease in resolvin D1 may trigger chronic inflammation and hepatocarcinogenesis. Resolvin D1 will provide an important diagnostic contribution in clinical practice to predict the progression of cirrhotic patients to HCC.

***Keywords:*** Hepatocellular carcinoma, cirrhosis, pro-inflammatory cytokines, AFP, resolvin D1

---

***PP-565***

## *The association between polymorphisms in HLA-A, HLA-B, HLA-DR, and DQ genes of gastric cancer and duodenal ulcer patients and multiple EPIYA-C repeats among CagA-positive Helicobacter pylori strains: The first study in a Turkish population*

**Bekir Kocazeybek[1], Süleyman Demiryaş[2], Erkan Yılmaz[3], Doğukan Özbey[1]**

*[1]Department of Medical Microbiology, İstanbul University-Cerrahpaşa, Cerrahpaşa School of Medicine, İstanbul, Turkey*
*[2]Department of General Surgery, İstanbul University-Cerrahpaşa, Cerrahpaşa School of Medicine, İstanbul, Turkey*
*[3]Department of Organ Transplantation, HLA Laboratory, İstanbul University-Cerrahpaşa, Cerrahpaşa School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Polymorphisms in HLA genes of the host are suggested to enhance the risk of gastric cancer (GC) development. We aimed to investigate the HLA class I and II allele frequencies of patient group (PG) (*H. pylori* (+) GC and duodenale ulcer (DU) patients) relative to a control group (*H. pylori* (+) non-ulcer dyspepsi (NUD) and normal gastrointestinal system (NGIS)) due to the CagA+ multiple EPIYA-C repeats criterion in a Turkish population.

***Materials and Methods:*** The PG, comprising a total of 94 patients (44 GC and 50 DU patients), and a control group, comprising a total of 86 individuals (50 non-ulcer dyspepsi (NUD) patients and 36 persons with normal gastrointestinal system (NGIS) were included. ureC gene detection, amplification of the *H. pylori* cagA gene, and typing of EPIYA motifs were applied by PCR. For HLA SSO typing, LIFECODES SSO Typing kits (HLA-A, HLA-B HLA-C, HLA-DRB1 and HLA-DQA1/B1 kits) were used

***Results:*** In the comparison within the GC group due to the CagA+ multiple EPIYA-C repeats criterion, only the HLA-DQB1*06 (OR: 0.37) allele was significant and the HLA-DQA1*01 allele had a high ratio. None of the alleles were detected as independent risk factors due to three multivariate analyses.

***Conclusion;*** HLA-DQB1*06 was significantly higher in the GC group. However, these HLA alleles were not detected as independent risk factors in multivariate analyses. There are conflicting results related to the effects of MHC alleles; some indicate a risk whereas others indicate a protective role for GC related to *H. pylori* infections.

***Keywords:*** HLA, *Helicobacter pylori*, gastric cancer

---

***PP-566***

## *Screening for latent and patent tuberculosis in patients with cirrhosis*

**Meryem El Jihad, Mohamed Tahiri, Fouad Haddad, Wafaa Hliwa, Ahmed Bellabah, Wafaa Badre**

*Chu Ibn Rochd Casablanca, Casablanca, Morocco*

***Background/Aims:*** Tuberculosis is a public health problem in Morocco. Its occurrence during cirrhosis, which is a fertile ground for opportunistic infection, can be particularly serious. The prevalence of tuberculosis is higher in cirrhotic patients but its diagnosis remains difficult. Its treatment is based on the use of anti-bacillary agents, which are hepatotoxic in most cases, exposing to the risk of aggravation and decompensation of the cirrhosis. The aim of our work is to determine the prevalence and clinical features of tuberculosis in cirrhotic patients, and to describe the evolution under anti-bacillary treatment.

***Materials and Methods:*** This is a prospective study carries out in the gastroenterology department over a period of three years (from January 2016 to December 2018). We included 94 cirrhotic patients, followed in consultation, for whom tuberculosis screening was performed using the tuberculin intra dermo reaction technique.

***Results:*** Seven patients had latent tuberculosis (7.4% of cases), and fifteen patients had patent tuberculosis with a prevalence of 16%. Extra-pulmonary TB (80%) was more common than pulmonary TB (20%). Tuberculosis was common in decompensated liver cirrhosis (59.1%) compared to compensated liver cirrhosis (40.9%). 3/15 patients had anti-bacillary induced hepatotoxicity of which 2 patients had decompensated cirrhosis. Two deaths have been reported in cirrhotic patients with extra-pulmonary tuberculosis who had no anti-bacillary hapatotoxicity.

***Conclusion:*** Our study shows a very high prevalence of tuberculosis during cirrhosis and that treatment remains a possible option since only 20% of patients treated had anti-bacillary hepatotoxicity whose long-term evolution was favorable.

***Keywords:*** Tuberculosis, cirrhosis, anti-bacillary treatment

---

***PP-567***

## *How to improve the effectiveness of hepatotoxic reactions prevention in patients with cytostatic-induced liver injury?*

**Igor Skrypnyk, Ganna Maslova**

*Ukrainian Medical Stomatological Academy, Poltava Oblast, Ukraine*

***Background/Aims:*** The basic principle of acute myeloid leukemia (AML) treatment is strict adherence to dosage and administration of cytotoxic drugs. Chemotherapy (CT) can lead to liver function tests violations. Overweight and obesity are the

risk factors for the drug-induced liver injury development. The aim – to investigate the effectiveness of ursodeoxycholic acid (UDCA) for the prevention of hepatotoxic reactions during remission induction CT in AML pts.

***Materials and Methods:*** We examined 30 pts with primary diagnosed AML. The ratio of women and men was 14 (46.6%)/16 (53.4%). The age range was 21-68 years old. The general condition of pts for ECOG I-II, Karnovsky index was 60-80%. According to FAB classification, variants $M_0$, $M_1$, $M_2$ were diagnosed in 11 (36.7%), $M_4$ – in 10 (33.3%), $M_5$ – in 9 (10%) pts. Pts received the first course of induction remission according to the regimes «7+3» or «5+2» for variants $M_{0-2}$ and «7+3+etoposide» or «5+2+etoposide» for variants $M_{4-5}$. Depending on the additional appointment of UDCA during CT, pts were divided into 2 groups: I (n=15) – AML pts receiving CT, II (n=15) – CT and UDCA 15 mg/kg within 28 days. The study included pts without violations of liver functional state and with negative markers for viral hepatitis. The activity of alanine (ALT), aspartate (AST) aminotransferases, alkaline phosphatase (AP), gamma-glutamyltranspeptidase (GGTP), and total bilirubin levels were determined at baseline, at 7$^{th}$ and 28$^{th}$ days. To assess the severity of hepatotoxic reactions, the CTCAE scale was used.

***Results:*** Before inclusion in the study, all functional liver tests were within normal limits. Development of hepatotoxic reactions on the 7th day was found in 8 (53.3%) pts of group I, of which in 7 (46.7%) – grade I and 1 (6.7%) – grade II. Cytolytic type of hepatotoxic reactions was diagnosed in 1 (6.7%), cholestatic type – in 5 (33.3%), mixed – in 2 (13.3%) pts. On the 7$^{th}$ day of observation, GGTP activity increased in 2.4 times (90.5±11.4 vs 36.7±8.4) U/l and AP – in 2.2 times (150.8±21.4 vs 68.5±18.4) U/l in comparison with the primary examination ($p<0.05$). In pts of group II, receiving UDCA during CT, on the 7$^{th}$ day grade I hepatotoxic reactions of mixed type were diagnosed in 2 (13.3%) pts, without changes in individual indicators of liver tests. The appointment of UDCA during CT can reduce the risk of hepatotoxic reactions development (RR=0.250; 95% CI=0.063-0.988; $p<0.05$). At the 28$^{th}$ day hepatotoxic reactions were observed only in 4 (26.7%) pts of group I, which did not exceed grade I.

***Conclusion:*** Treatment with UDCA during chemotherapy in AML pts reduces the risk of hepatotoxic reactions.

***Keywords:*** Cytostatic-induced liver injury, acute myeloid leukemia, ursodeoxycholic acid, effectiveness

---

***PP-568***

## *Anal stenosis in Crohn disease*

**El Bacha Hicham, Benzzoubeir Nadia, Azib Nada, Ouazzani Laaziza, Errabih Ikram**

*Faculte de Medecine Et De Pharmacie Universite Mohammed V Rabat, Rabat, Morocco*

***Background/Aims:*** Crohn disease is an IBD that can involve any part of the digestive tract. it is usually complicated by perianale lesions wich include ulceration, fistulas, abscesses and anal stenosis. Anal stenosis is associated with poor quality of life. the aim of this study is to determine the epidemiological and clinical aspects in addition of different treatment strategies for anal stenosis

***Materials and Methods:*** We performed a retrospective study including all patient with Crohn disease in our unit From January 2002 to 2019. The clinical data included were the age, sex, symptoms, disease phenotype and treatment

***Results:*** 22 patients had anal stenosis among of 845 patients with Crohn disease ratio of 2.6. The average age was 37 years old with extremes from 20 to 66 years old with female predominance. The sex ratio (M/F) was 0.22. All patients had defecatory pain, 12 patients (54.5%) had issue of pus and one patient (4,5%) had occlusive syndrome. Crohn phenotype was penetrating in 12 (54.5%) patients and structuring in 10 patients (45.5%), Crohn disease location was colon in 10 (45.5%) cases, ileocolon in 9(41%) cases and ileum in 3(14%) cases. Pelvic MRI showed anal stenosis in all cases, and complex fistulas stage 4 of PARKS classification in 5(23%) of cases. Treatment of the stenosis was finger dilation in 10 (54.5%) cases, dilation with Hegar candles in 7 (32%) cases and balloon dilation in 4 (18%) cases; biopsy of stenosis revealed squamous cell carcinoma in one case (4.5%). Treatment of CD was immunosuppressive in 16 (72.7%) cases, TNFaantagonists in 4 (18.18%) cases and combotherapy in 2 (9%) cases.

***Conclusion:*** Anal stenosis occur most frequently in women of young age. anal stenosis can be treated by therapy escalation (step up strategy) and dilation. Careful follow up should be made due to the risk of associated neoplasia.

***Keywords:*** Anal stenosis, Crohn disease, treatment

---

***PP-569***

## *Morphological deviation of the colon position – Colitis possible causes?*

**Stevan Trbojevic[1], Zivka Eri[2], Draginja Bjelica[3], Teodora Trbojevic[4], Nikola Agbaba[1]**

*[1] Scim Cardios*
*[2] Ilm Medlab*
*[3] Pc Sons*
*[4] Mf Novi Sad*

***Background/Aims:*** According to our clinical documentation about 35% patients have mild, long-lasting symptoms (12 fears is an average of their symptoms) such as abdominal flatulence episodes (75%) and/or hyperactivity of bowel sound (49%) and/or excessive intestinal gas (42%) and/or episodes of abdominal pain (64%) and/or episodes of changed defecation characteristics (22%) and/or stool changes (36%) followed by painful or painless palpable.

***Materials and Methods:*** This study included a total 87 patients (35 female and 52 male) with an average age of 42. Previously mentioned symptoms were presented among all patients. All of them were undergone radiography of colon, colonoscopy and patohistology analysis. Furthermore, classification of the colitis to mild, moderate and severe, based on endoscopic view, is presented in our scientific project. Moreover, there is a patohistological verification of endoscopy analysis of patients.

***Results:*** The results showed 13 (14%) patients with mild, 60 (68%) with moderate and 7 (8%) with severe chronic non-specific colitis. 9 patients (10%) have undergone appendectomy, whilst in another's 78 (%) patients radiography revealed signs of the chronic appendicitis.

***Conclusion:*** To conclude, morphological deviation of the colon segments, presumably caused by adhesions, lead to distension and/or types of vascular irregularities at those colon segments. Eventually, the lack of blood flow causes a condition called ischemia, which further leads to the colitis. Every patient, suffering from one of the mentioned symptoms (especially) if an abdominal mass is palpable in the colon region), should be examined via radiography and if necessary, colonoscopy. Treatment of these patients is also of vital importance. However, principles of the therapy are going to be published in the of following projects.

***Keywords:*** Non-specific colitis, deviation of the colon position, radiography of colon, colonoscopy

---

***PP-570***

## *Fatty liver: Think of cholesteryl ester storage disease*

**Jaya Agarwal, Ajmal Hasan, Mayank Mehrotra, Rashmi Kapoor**

*Regency Health Care, Uttar Pradesh, India*

Cholesteryl ester storage disease (CESD) is an underdiagnosed, autosomal recessive, progressive, metabolic liver disease due to the deficient activity of lysosomal acid lipase (LAL). LAL deficiency results in cholesteryl ester (CE) and

triglyceride storage, primarily in hepatocytes and macrophages, leading to hepatomegaly, microvesicular steatosis, cirrhosis, dyslipidemia, premature atherosclerosis. The phenotype depends on the type of LIPA gene mutation and the severity of enzyme deficiency. Onset of the clinical manifestations can present from the first year of life and into adulthood. Although CESD is rare, it is likely that many patients are unrecognized or misdiagnosed as NASH, NAFLD, or cryptogenic liver disease. This is a first case report of a young Indian boy diagnosed as CESD with most common variant E8SJM LIPA gene mutation, which previously has been reported in Europeans and North Americans. It leads to the suggestion that CESD is unrecognized in Indian population and may be unmasked in patients presenting with NAFLD. 4-year-old boy presented with persistently raised transaminases for more than a year and growth failure (weight 14 kg, height 102 cm {both < 5$^{th}$centile}). He was born out of non-consanguineous marriage with no history of developmental delay, seizures, jaundice or ascites. On examination he had mild pallor with firm hepatosplenomegaly. His lab workup showed ALT/AST 114/186, serum triglyceride 515, VLDL 83, LDL 74, HDL 30, total cholesterol 188 with normal fasting blood sugar at multiple occasions. CPK and serum uric acid was normal. USG abdomen showed enlarged liver with increased echogenicity and splenomegaly with portal vein diameter of 6 mm. His workup for chronic liver disease with autoimmune markers, serum ceruloplasmin, viral hepatitis markers, tissue transglutaminase was negative. Upper gastrointestinal endoscopy didn't show any varices, Fibroscan didn't show any evidence of cirrhosis with liver stiffness 4.5±1.5 Kpa. Glycogen storage disorder did not fit in the clinical profile, and his low HDL level hinted towards rarer diagnosis of CESD. LAL-D enzyme blood spot test was unavailable, and parents did not agree for liver biopsy. Hence targeted gene sequencing for LIPA gene mutation was sought for pathogenic gene variants. It showed homozygous pathogenic variant in the exon 8 of LIPA gene (E8SJM), c.894G>A (p.Gln298(=)).The c.894G>A is the most frequent mutant allele found in molecularly characterized CESD patients, reported in literature. However it has notably not found in any individuals of south or east Asian ancestry till date. Currently this child is in process to get registered for enzyme replacement therapy (ERT) sebelipase alfa on compassionate basis. There is no published literature or case report on CESD from India with hepatic presentation with confirmed genetic diagnosis. There is first case report from India with genetic confirmation of CESD, in a pediatric patient with chronic liver disease and dyslipidemia. CESD is a rare genetic condition that can cause severe liver disease, but it is difficult to diagnose and sometimes can look like simple fatty liver. There is a clinical spectrum for CESD with some patients diagnosed in childhood, while others remain undiagnosed until adulthood. Severely affected patients may present in infancy with Wolman-like manifestations) (with <1% LIPA activity), such as diarrhea, failure to thrive, emesis, abdominal distension and even adrenal calcifications. In contrast, CESD is later-onset subtype that may present in infancy, childhood, or adulthood, depending on the residual in vitro LAL activity, which typically ranges from 1% to 12% of normal. The progressive lysosomal CE and triglyceride accumulation leads to the characteristic liver pathology, elevated serum transaminases, and elevated serum LDL-cholesterol and triglycerides, with normal to low HDL-cholesterol concentrations. The progressive lipid deposition leads to fibrosis, micronodular cirrhosis, and ultimately to liver failure. Elevation of serum transaminases, alanine aminotransferase (ALT) and/or aspartate aminotransferase (AST), and hepatomegaly are early indications of liver impairment. Premature demise is due to liver failure and/or accelerated atherosclerotic disease secondary to the chronic hyperlipidemia. Hepatomegaly typically leads to a liver biopsy which grossly appears bright yellow-orange in color, and histologically is characterized by enlarged lipid-laden hepatocytes and Kupffer cells, and is characterized as microvesicular steatosis. The liver biopsy diagnosis may be misclassified as non-alcoholic fatty liver disease (NAFLD), non-alcoholic steatohepatitis (NASH), or cryptogenic liver disease. The true prevalence of LAL-D (both CESD and WD) is not known. The diagnosis of LAL-D is performed with an enzyme-based biochemical blood test demonstrating an absent activity of LAL. The most common LIPA variant associated with CESD is a splice-junction mutation in exon 8 referred to as E8SJM which has been used to derive an estimated prevalence as high as 1 per 40,000 in European population. Genotype/ phenotype correlations were limited; however, E8SJM1G>A homozygotes typically had early-onset, slowly progressive disease. Supportive treatment included cholestyramine, statins, and, ultimately, liver transplantation. LAL-D can be treated with sebelipase alfa which is a recombinant form of LAL that works as enzyme replacement therapy and that has been recently approved for this disease. We therefore suggest that CESD should more often be considered as a differential diagnosis in liver diseases of unknown (nonalcoholic steatohepatitis or NASH) or known (alcoholic steatohepatitis) origin and in dyslipidemic patients with combined hyperlipidemia and low HDL-cholesterol Awareness of the disease combined with efficient diagnostic tools should facilitate the correct diagnosis and therapy of CESD.

***Keywords:*** CESD, NASH, NAFLD

***PP-571***

## *Prevalence of Hepatitis B virus markers in patients undergoing biological therapy*

**Soumaya Nsibi, Rym Ennaifer, Bochra Bouchabou, Hayfa Ben Romdhane, Houda Ben Nejma**

*Mongi Slim Hospital, Tunis, Tunisia*

***Background/Aims:*** Hepatitis B virus (HBV) reactivation is a serious complication of immunosuppressive therapy (IST). However, the rate of HBV screening and the prevalence of HBV infection in patients with rheumatic diseases (RD) and inflammatory bowel diseases (IBD) treated by biological therapy (BT) remain unclear in our country. The aim of our study was to determinate prevalence of HBV markers in IBD and RD patients before BT.

***Materials and Methods:*** We performed a retrospective monocentric study including IBD and RD patients followed in Gastroenterology and Rheumatology department between 2013-2018.The practices of HBV infection screening prior to BT and prevalence of HBV surface antigen (AgHBs), hepatitis B surface antibody (HBsAb) and hepatitis B core antibody (HBcAb) and prevention of HBV reactivation in patients with serological evidence of infection were investigated.

***Results:*** We included 88 patients: 75 from Rheumatology department and 13 from Gastrology department. Among RD patients we enrolled 36 rheumatoid arthritis, 35 ankylosing spondylitis and 4 idiopathic juvenile arthritis. Regarding IBD patients we enrolled 10 Crohn's disease and 3 Ulcerative Colitis. The mean age was 45 years. Sixty-one percent were female**.** More than half were treated by IST (glucocorticoids or methotrexate) previously or currently to biological agents. BT used were anti-TNF alpha, anti-IL6 and anti CD20 in 83%, 9% and 8% respectively. Overall, screening for HBV infection was achieved in 92% patients: AgHBs was checked in 92% of patients and HBcAb in 69% and HBsAb in 49%. AgHBs was detected in one patient (1.23%). A previous contact with hepatitis B (positive HBcAb, negative AgHBs) was detected in 12 patients (20%).

***Conclusion:*** In this series, screening of HBV in patients undergoing BT was correctly performed in two third of cases. Serological evidence of past infection with HVB was detected in 20%. These data highlight the importance of screening with a complete serology to identify patients at risk of reactivation for institution of adequate prophylactic therapy.

***Keywords:*** Hepatitis B virus, screening, immunosuppressive therapy

---

***PP-572***

## *Diagnostic and therapeutic values of pelvi-abdominal ultrasound in cases presenting with acute abdomen*

**Ahmed El-Mikkawy**

*Theodor Bilharz Research Institute, Giza, Egypt*

***Background/Aims:*** Abdominal ultrasound (US) is considered an important modality for accurate evaluation of acute abdominal cases. We conducted the present study to determine the value of pelvi-abdominal US in acute abdominal cases regarding its diagnostic and therapeutic implications.

***Materials and Methods:*** The present prospective study included adult patients (>15 years old) who presented with acute abdominal pain of less than one-week duration. Ultrasonographic examination was done by an expert physician and some of the studied patients underwent diagnostic aspiration with or without pigtail insertion. The statistical analysis was carried out using SPSS version 22.0.

***Results:*** The present study included 402 patients with a mean age of 40.28±13.4 years; the majority of patients were females (55.5%). The most commonly encountered causes of acute abdomen were postoperative collections (36.3%), followed by perforated viscus (7%) and acute appendicitis (4.9%). The provisional US diagnosis was similar to the final diagnosis in 81.3% of the cases; while the rate of misdiagnosis was only 14.4%; the US led to false negative results in 4.3% of the cases Thus, the US examination yielded a sensitivity of 81.34% (95% CI 77.18-85.03) in the diagnosis of the cause of acute abdomen. Almost 43% of the patients underwent US-guided aspiration and 25% underwent Pigtail insertion. Only 32 patients (8%) died, mostly due to septic shock.

***Conclusion:*** Pelvi-abdominal US has proved to be a useful tool for the evaluation and management of acute abdomen cases.

***Keywords:*** Acute abdomen, diagnostic accuracy, ultrasound

---

***PP-573***

## *Cost effectiveness of patency capsule prior to wireless capsule endoscopy*

**Deloar Hoshen**

*Leeds Teaching Hospitals, Leeds, UK*

***Background/Aims:*** NICE 2004 and ECCO guidance support the use of wireless capsule endoscopy (WCE) in investigation of the small bowel. Patency capsules are widely used prior to WCE to reduce the incidence of capsule retention. We evaluated the cost-effectiveness of our use of patency capsule and whether selective use, based on high risk features(known or suspected Crohn's, previous abdominal surgery, abdominal pain being the predominant symptom & patients without prior abdominal imaging) is a cost-effective strategy.

***Materials and Methods:*** Patients who underwent WCE between March2016 and January2018 were identified from the database. Electronic records were reviewed to assess indications and outcomes. differences between the two groups were analysed with Fishers exact two-tailed test. The 2016/2017 NHS tariff codes were used to calculate the costs. Reviewed if application of an algorithm to select high-risk patients is beneficial in terms of cost effectiveness.

***Results:*** 214 (f=124, m=90) patients were referred for WCE. Patients with high risk of retention based on our algorithm had patency capsule prior to WCE n=66 (f=33, m=33); 148 (f=91, m=57) proceeded straight to WCE. A significant proportion of patients undergoing patency capsule were investigated for small bowel enteropathy or Crohn's disease (p=<0.001) while those with IDA or obscure GI bleeding went generally straight to test (p=<0.001). We identified 24 false positive patency capsules,with additional costs of £1956. By applying our algorithm of selecting high-risk patients we showed the cost per patient for a WCE was £811.This was cost-effective compared to avoiding using patency capsules (£877 per patient) or using patency in all referrals prior to WCE (£899 per patient).

***Conclusion:*** Using a selective approach to the use of patency capsules is cost-effective compared to other strategies and saves between £66 and £88 per patient.

***Keywords:*** Cost effectiveness, capsule-endoscopy, patency test

| | | Scenario A : LTHT algorithm | | Scenario B: All have patency capsule | | Scenario C: No patency capsule | |
|---|---|---|---|---|---|---|---|
| | *Average cost per patient (£)* | Patients - no. (%) | Cost (£) | Patients - no. (%) | Cost (£) | Patients - no. (%) | Cost (£) |
| Patency capsule | *116* | 66 (31) | 7,656 | 214 (100) | 24,824 | 0 | 0 |
| Interventions required from FP of patency | *81.5* | 24 (36) | 1,956 | 77 (36) | 6275 | 0 | 0 |
| Interventions required from TP of patency | *119* | 2 (3) | 238 | 6 (3) | 714 | 0 | 0 |
| Cost of WCE | *771* | 212 | 163,452 | 208 | 160,368 | 214 | 164,994 |
| Interventions required from FP of WCE | *31* | 10 (5) | 310 | 10 (5) | 310 | 88 (41) | 6617 |
| Interventions required from TP of WCE | *2,710* | 0 | 0 | 0 | 0 | 6 (3) | 16,260 |
| **Total** | | | **173,612** | | **192,491** | | **187,871** |
| **Cost per patient** | | | **811** | | **899** | | **877** |

***PP-574***

## *Double pyloris: A rare complication of peptic ulcer*

**Bilal Toka[1], Cihad Altunyaprak[2], Fatih Ergül[2], Şeyma Çehri[2], Uysaler Aslan[2], İbrahim Güney[2]**

*[1]Department of Gastroenterology, Health Sciences University Konya Training and Research Hospital, Konya, Turkey*
*[2]Department of Internal Diseases, Health Sciences University Konya Training and Research Hospital, Konya, Turkey*

***Introduction:*** Double pylorus (DP), or duplication of the pylorus, is an uncommon condition that can be either congenital or acquired. It was first described in 1969 and its pathogenesis is still controversial today. USG and cross-sectional images may be confused with stomach tumors and Crohn's disease. If there is ulcer, PPI treatment should be given, and surgical procedures may be needed in complicated cases. In this case report, we aimed to present a case of 'acquired double pylorus' secondary to peptic ulcer and whose charesteristic endocopic appearance.

***Case:*** A 54-year-old male patient was admitted with fasting epigastric pain for 5 months. He has no chronic disease. He had been using a proton pump inhibitor for ten days and his complaints has improved. In laboratory, hemogram and biochemical values were normal. Increased antrum wall thickness was described on abdominal USG. Gastroscopy revealed a fistula orifice opening to the bulbus through an oval passage similar to the pyloric structure, approximately 3,5 cm in diameter, about 2 cm away from the Pylor at the small curvature. On the upper edge of this orifice, there was a clean-based ulcer approximately 1.5 cm wide with clean base (Figure 1). Biopsies were taken from the ulcer. The patient was discharged and polyclinic control was recommended with the biopsy result.

***Conclusion:*** Although double pyloris is thought to be congenital, it is generally a very rare complication of gastric ulcers. It may also be considered as a closed perforation developing from the stomach to the bulbus. With the increasing use of proton pump inhibitors, the frequency of perforations due to peptic ulcers is considerably reduced and so its frequency will may decrease.

***PP-575***

## *Investigating the association between body mass index and gastroesophageal reflux disease: A systematic review and meta-analysis*

**Jorabar Singh Nirwan, Syed Shahzad Hasan, Barbara R. Conway, Muhammad Usman Ghori**

*University of Huddersfield, Huddersfield, UK*

***Background/Aims:*** Gastroesophageal reflux disease (GERD) is an extremely common digestive disorder characterised by symptoms of heartburn and/or acid regurgitation. Multiple risk factors have been associated with an increased risk of developing the condition. One such risk factor which has been identified in the literature is obesity. However, the extent to which obesity increases the risk of developing GERD has not previously been explored at a global level. Therefore, the aim of this study was to conduct a systematic review and meta-analysis on the prevalence of GERD stratified by body mass index (BMI) and to quantify the increased risk in obese individuals by calculating the odds ratio (OR) and relative risk (RR).

***Materials and Methods:*** This systematic review was performed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2009 guidelines (Figure 1). EMBASE, MEDLINE, Scopus, CINAHL, Cochrane library, and Google Scholar were systematically searched for studies on the prevalence of GERD where the BMI of the subjects were also stated. Data were pooled using a random effects model (95% confidence interval) using MetaXL, and the OR's and RR's were calculated using MedCalc online calculators.

***Results:*** 17 studies were included in this review**.** Statistical analysis revealed an increase in the pooled prevalence of GERD in subjects with a higher BMI compared with those with a lower BMI (Table 1). The lowest prevalence of GERD was found in those with a BMI <18.5 (6.64% (95% CI 3.40%-10.82%)), whereas the highest prevalence of GERD was displayed in obese subjects (BMI greater than or equal to 30.0) (22.63% (95% CI 17.33%-28.41%)). An increased risk of GERD in obese individuals was also reflected in the OR and RR (Table 2). This data showed that obesity significantly increased the risk of developing GERD when compared with lower BMI subjects.

***Conclusion:*** This systematic review and meta-analysis has demonstrated the relationship between BMI and GERD; displaying an increased prevalence and risk of GERD in individuals with a higher BMI. It is anticipated that this review will assist healthcare providers in the treatment of GERD by identifying individuals most at risk, thereby allowing them to provide the necessary advice and guidance for lifestyle alterations.

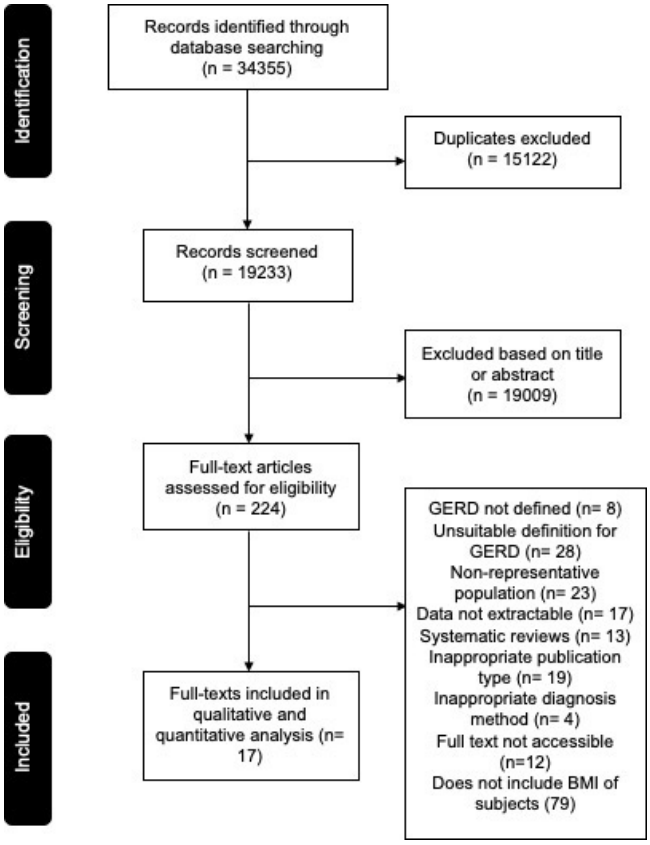
***Keywords:*** GERD, BMI, obesity

***Table 1.*** Prevalence of GERD according to BMI

| | | | GERD prevalence | | 95% CI | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BMI | No. of studies | No. of participants | n | % | LCI | HCI | $I^2$ | Cochrans Q | $Chi^2$, p | $Tau^2$ |
| <18.5 | 6 | 2506 | 110 | 6.64 | 3.40 | 10.82 | 88.55 | 43.66 | 0.001 | 0.026 |
| 18.5-29.9 | 14 | 10244 | 1830 | 17.20 | 11.80 | 23.37 | 98.25 | 628.66 | 0.010 | 0.070 |
| ≥30.0 | 12 | 3423 | 934 | 22.63 | 17.33 | 28.41 | 92.95 | 156.10 | 0.010 | 0.048 |

***Table 2.*** Odds ratio and relative risk of BMI levels

| BMI | Compared to | Odds ratio | 95% CI | Significance level | Relative risk | 95% CI | Significance level |
|---|---|---|---|---|---|---|---|
| <18.5 | <18.5 | 4.737 | 3.888-5.773 | p<0.0001 | 4.070 | 3.374-4.909 | p<0.0001 |
| 18.5-29.9 | <18.5 | 5.350 | 4.383-6.529 | p<0.0001 | 6.216 | 5.137-7.523 | p<0.0001 |
| ≥30.0 | 18.5-29.9 | 1.725 | 1.576-1.889 | p<0.0001 | 1.527 | 1.426-1.636 | p<0.0001 |




***PP-576***

## *Gastroduedenal huge lipoma mimicking functional dyspepsia*

**Fatih Kıvrakoğlu, Rasim Eren Cankurtaran, Yunus Halil Polat, İlhami Yüksel, Osman Ersoy**

*Department of Gastroenterology, Ankara Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*

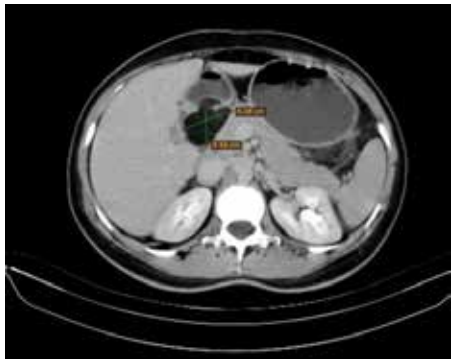
***Introduction:*** Lipomas are benign intramucosal tumors of mature lipocytes. Lipomas are usually detected incidentally. They can be seen in every part of the gastrointestinal tract; but mostly in lower gastrointestinal tract. Lipomas have no malignant potential. We are presenting a very big lipoma in upper gastrointestinal tract.

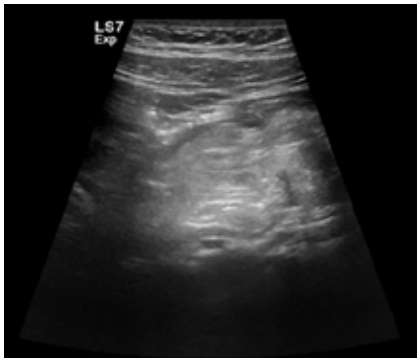
***Case:*** A 38-year-old woman admitted to the hospital with complaints of dyspepsia. Upper gastrointestinal endoscopy was performed. 6x5 cm diameter external compression was seen in the antrum. The external compression was closed at the pyloric mouth, the mass was pressing into the bulbus, and there was a partial stenosis in the lumen (Figure 1). Abdominal CT was

performed, there was a biloculated fat density (3.18x4.38cm, 2.44x1.59cm diameter) in prepyloric antrum and bulbus (Figure 2). Endoscopic ultrasonography was performed and homogeneous lesion originating from submucosa detected (Figure 3). The patient was referred to surgery because of compression symptoms.

***Conclusion:*** Lipomas are benign lesions of gastrointestinal tract. They are rarely symptomatic, but they may cause hemorrhage, abdominal pain, and intestinal obstruction. A lipoma commonly appears as an isolated solitary bulge located in the gastrointestinal (GI) tract with normal overlying mucosa. Biopsies usually show only normal mucosa. Lipomas are hyperechoic, homogeneous lesions with regular margins arising from the submucosa in endoscopic ultrasonography**.** Endoscopic snare excision may be associated with perforation and hemorrhage, the risk of which is particularly increased for lesions greater than 2 cm in diameter.

***Keywords:*** Lipomas in gastrointestinal tract, intestinal obstruction






***PP-577***

## *Asymptomatic thrombus in inferior vena cava extending into right atrium in a patient with rectosigmoid colon cancer*

**Özdal Ersoy[1], Fatih Tipi[2], Simay Kara[1], Cem Arıtürk[3]**

*[1]Acıbadem University School of Medicine, İstanbul, Turkey*
*[2]Department of Cardiology, Acıbadem Fulya Hospital, İstanbul, Turkey*
*[3]Department of Vascular Surgery, Acıbadem Fulya Hospital, İstanbul, Turkey*

Thrombus in inferior vena cava is mostly seen in renal cell and hepatocellular carcinomas. It is very rarely seen in colon cancer. In June 2019, sixty-four years old man admitted to the gastroenterology clinic with only a new onset symptom of extreme fatigue and short of breath. His physical examination revealed no specific pathological findings. His initial diagnostic work-up (laboratory and imaging tests) showed a mild anemia but thrombus in the inferior vena cava starting from splenic veins and extending into the right atrium and sigmoid colon bowel thickening and metastatic liver lesions. Rectosigmoid malign mass was seen during colonoscopy and the histopathology revealed adenocarcinoma with no KRAS mutation. Despite all these lesions, the patient was nearly asymptomatic and low-molecular weight heparin treatment was immediately started. Poor overall prognosis from this cancer led to the decision to avoid surgical treatment and he was referred to oncology clinic for palliative chemo-therapy. He is still on therapy. Thrombus in inferior vena cava can be seen in patients with malignancy and rarely in colorectal cancer but its management can be challenging due to significant thromboemboli risks.

***Keywords:*** Vena cava inferior, thrombus, colon cancer

***PP-578***

## *Is the split dose better than conventional bowel preparation in Tunisian patients?*

**Soumaya Nsibi, Rym Ennaifer, Bochra Bouchabou, Hayfa Ben Romdhane, Houda Ben Nejma**

*Mongi Slim Hospital, Tunis, Tunisia*

***Background/Aims:*** An adequate bowel preparation is associated with a higher polyp detection rate, a decreased repetitive colonoscopies, lower costs and adverse events. The purpose of our study was to compare split dose to conventional regimen and to identify factors affecting bowel preparation for colonoscopy.

***Materials and Methods:*** In a prospective monocentric study, patients were randomized (single blind, one by one) to receive either a split dose or non-split dose (conventional) preparation with polyethylene glycol (PEG) solutions. Patients and procedure-related features were evaluated. The quality of bowel preparation was evaluated according to the (Boston Bowel Preparation Scale (BBPS) (rated as adequate if BBPS >=7).

***Results:*** From January to March 2019, a total of 112 patients had completed colonoscopy: 50(44.6%) had taken conventional regimen (mean age 62 years) and 62(55.4%) split dose (mean age 56 years). Forty-one percent were female. The mean BBPS was 5.46 (3-8). The polyp detection rate was 46.4%. In univariate and multivariate study, age, sex, body mass index and comorbidities had no significant impact. Factors associated with adequate bowel preparation were a compliance with PEG dose (>4 L), a compliance with dietary instructions, outpatient status (p=0.05), a history of inadequate bowel preparation (p=0.007), a distance to endoscopy center less than 1hour (p=0.05), the willingness to repeat the same preparation and the last dose taken within 5 hours of the colonoscopy time (p=0.001): « the five golden hours. Split dose preparation was an independent predictive factor for optimal bowel preparation (p=0.024).

***Conclusion:*** Multiple factors affect the quality of cleansing for colonoscopy. In our study, procedure related factors (split dose regimen and the five golden hours) and patient factors (compliance with PEG dose, diet and the willingness to repeat the same preparation) were predictors for adequate bowel preparation. The knowledge of these characteristics may identify patients who should benefit from an extended bowel preparation.

***Keywords:*** Colonoscopy, split dose, bowel prepatation, polyethylene glycol

---

***PP-579***

## *Autoimmune diseases associated with celiac disease and relationship risk factors*

**Ramazan Dertli, Yusuf Kayar**

*Division of Gastroenterology, Department of Internal Medicine, Van Training and Research Hospital, Van, Turkey*

***Background/Aims:*** Autoimmune Diseases (AIDs) are detected in celiac patients. Also there is a significant relation between AID development and some risk factors in celiac patients. Our purpose was to determine the autoimmune diseases that are associated with celiac disease and related risk factors in the Turkish population.

***Materials and Methods:*** The study included 230 celiac patients who were diagnosed and followed-up in our clinics between 2015-2019. The demographic and anthropometric characteristics, initial presentation complaints, disease durations and dietary compliance of the patients were documented. All AIDs that accompanied the celiac disease were recorded, and their association with risk factors was analyzed.

***Results:*** The age-range of the patients was 18-72 years, and the mean-age was 35.6±10.6 years. A total of 58(25.2%) patients were male and the mean age at onset of disease was 29.1±6.5 years. The duration of disease follow-up was 6.5±4.6

years. A total of 122(53%) of the patients were on a strict diet, and 72(31.3%) patients had accompanying AID. There was a significant relation between AID and female gender, age of diagnosis being <40 years, duration of disease, non-GIS symptoms at the time of admission, and non-employment status. Accompanying Autoimmune Diseases in Celiac Patients Table 1 is shown. As a result of the analysis, it was determined that the following were independent risk factors in AID development; having non-GIS symptoms at first admission (OR:2.29, 95% CI:1.195-4.388, p=0.013); the age of onset of the disease being <40 years (OR: 2.299, 95% CI:1.030-5.131, p=0.042); and unemployment of the patient (OR: 2.928, 95% CI:1.195-4.388, p=0.013).

***Conclusion:*** Screening other AIDs in celiac patients is important, especially in individuals who have risk factors. As many autoimmune diseases and extra-intestinal involvement are associated with celiac patients, they must be treated in an integrity, and must be followed-up and treated with a multidisciplinary approach.

***Keywords:*** Celiac disease, autoimmune diseases, associated factors

***Table 1.*** Accompanying autoimmune diseases in celiac patients

| | N-(%) | | N-(%) |
|---|---|---|---|
| Dermatitis Herpetiformis | 8 (3.5%) | Rheumatoid arthritis | 2 (0.9%) |
| Type 1 Diabetes Mellitus | 10 (4.3%) | Asthma | 16 (7%) |
| Hashimato Thyroiditis | 39 (17%) | Immune Thrombocytopenia | 3 (1.3%) |
| Graves' Disease | 2 (0.9%) | Hypogonadism | 1 (0.45%) |
| Primer Biliary Cirrhosis | 2 (0.9%) | Sjogren Disease | 6 (2.6%) |
| Autoimmune Hepatitis | 8 (3.5%) | Psoriasis | 2 (0.9%) |
| Systemic Lupus Erythematosus | 1(0.45%) | Autoimmune Hypoparathyroidism | 4 (1.7%) |
| Scleroderma | 2 (0.9%) | Dermatomyositis | 2 (0.9%) |
| Familial Mediterranean Fever | 2 (0.9%) | Gout Disease | 1 (0.45%) |
| Behcet's Disease | 2 (0.9%) | Ankylosing Spondylitis | 1 (0.45%) |

***Table 2.*** Risk factors associated with the presence of autoimmune disease

| Variables | Celiac Disease without Autoimmune Disease | Celiac Disease with Autoimmune Disease | All Patients | p |
|---|---|---|---|---|
| Age (years) | 35.9±12.07 | 34.9±10.7 | 35.6±10.6 | 0.57 |
| Onset age of the disease (years) | 30±11.7 | 27±10.4 | 29.1±6.5 | 0.09 |
| Onset age of the disease (years) | | | | |
| <40 years of age | 119 (%75.3) | 63 (%87.5) | 182 (%79.2) | 0.035* |
| ≥40 years of age | 39 (% 24.7) | 9 (%12.5) | 48 (%20.8) | |
| Disease duration (years) | 5.92±4.3 | 7.92±5 | 6.55±4.6 | 0.002* |
| BMI (kg/m$^2$) | 22±4 | 22.4±3.9 | 22.1±4.1 | 0.49 |
| Waist/hip rate | | | | |
| Below the limit | 127 (%80.4) | 57 (%79.2) | 184 (%80) | 0.83 |
| Above the limit | 31 (%19.6) | 15 (%20.8) | 46 (%20) | |
| Disease stage | | | | |
| Mild (Stage 2-3a) | 74 (%46.8) | 27(%37.5) | 101(%43.9) | 0.18 |
| Severe (Stage3b,3c,4) | 84 (%53.2) | 45(%62.5) | 129(%56.1) | |

| | | | | |
|---|---|---|---|---|
| Dietary Compliance | | | | |
| Strict | 90 (%57) | 32 (%44.4) | 122 (%53.1) | 0.078 |
| None | 68 (%43) | 40 (%55.6) | 108 (%46.9) | |
| Gender | | | | |
| Female | 112 (%70.9) | 60 (%83.3) | 172 (%74.7) | 0.044* |
| Male | 46 (%29.1) | 12 (%16.7) | 58 (%25.3) | |
| Immunologic Remission | | | | |
| Yes | 70 (%44.3) | 38 (%52.8) | 108 (%46.9) | 0.23 |
| No | 88 (%55.7) | 34 (%47.2) | 122 (%53.1) | |
| Family History | | | | |
| Yes | 39 (%24.7) | 11 (%15.3) | 50 (%21.7) | |
| No | 119 (%75.3) | 61 (%84.7) | 180 (%78.3) | 0.10 |
| Educational Status | | | | |
| Illiterate | 30 (%19) | 16 (%22.2) | 46 (%20) | |
| Primary Education | 87 (%55.1) | 37 (%51.4) | 124 (%53.9) | 0.38 |
| High School and over | 41 (25.9) | 19 (%26.4) | 60 (%26.1) | |
| Marital Status | | | | |
| Married | 114 (%72.2) | 50 (%69.4) | 164 (%71.3) | 0.67 |
| Single | 44 (%27.8) | 22 (%30.6) | 66 (%28.7) | |
| Working Status | | | | |
| Working | 41 (%25.9) | 9 (%12.5) | 50 (%21.7) | 0.022* |
| Unemployed | 117(%74.1) | 63 (%87.5) | 180 (%78.3) | |
| Smoking Status | | | | |
| Smoking | 26 (%16.5) | 18 (%25) | 44 (%19.1) | 0.20 |
| Non-smoking | 116 (%73.4) | 50 (%69.4) | 166 (%72.2) | |
| Quit | 16 (%10.1) | 4 (%5.6) | 20 (8.7) | |

***PP-580***

## *Malignant tumors of the small intestine: About 22 cases*

**Osman Guelleh Mohamed, Benelbarhdadi Imane, Lagdali Nawal, Berhili Camelia, Borahma Mohamed, Ajana Fatima-Zohra**

*Medical Clinic C, Ibn Sina University Hospital, Mohamed V University, Souissi, Rabat, Morocco*

***Background/Aims:*** Malignant tumors of the small intestine (MTSI) are rare and represent 1 to 5% of tumors of the digestive tract. Diagnosis is difficult and usually delayed because clinical symptoms are not specific. The histological type is varied. The aim of this work is to describe the epidemiological, diagnostic, histological and therapeutic measures of MTSI.

***Materials and Methods:*** This is a retrospective descriptive study over a period of 19 years (2000 to 2019).

***Results:*** The sex ratio H/F was 0.69 with a slight female predominance. The average age was 52.27 years old. In the antecedents there are 3 cases of celiac disease, one case of anemic syndrome and one case of adenomatous polyposis. Clinically, 72.27% (16 cases) had abdominal pain, 40.90% (9 cases) digestive haemorrhage, 36.36% (8 cases) transit

disorders, 8 cases had anemic syndrome, 31.81% (7 cases) abdominal mass, 45.45% (10 cases) had a general deterioration of state with weight loss. All our patients underwent abdominal ultrasound, 50% (11 cases) showed a digestive thickening, 18.18% (4 cases) showed an image of pseudo-kidney, 13.63% (3 cases) showed liver metastases and 18.18% (4 cases) showed deep lymphadenopathies. Computed tomography (CT) in all our patients noted in 68.18% (15 cases) a hail tissue mass, a thickening in one case, 13.63% of hepatic metastases and deep adenopathy in 18.18% of cases. The site of tumors was as follows: 31.81% (7 cases) ileum, 31.81% (7 cases) duodenal, 27.27% (6 cases) jejunal and 9.09% (2 cases) at the level of the angle of treitz. The histological type was dominated by the malignant stromal tumor in 40.90% (9 cases), followed by adenocarcinoma in 36.36% (8 cases), then the neuroendocrine tumor in 13.63% (3 cases), 1 case of Burkit lymphoma and 1 case of sarcoma. Surgical treatment was performed in 72.72% (16 cases), 2 patients received postoperative chemotherapy, 1 treatment without treatment and 1 with palliative chemotherapy. The evolution was marked by the death of one case postoperative in a peritonitis by release of stitches. 01 case of stromal tumor returned to a recurrence chart at 18 months with liver metastases and died after a few weeks. 06 cases of adenocarcinoma died during follow-up. In the case of neuroendocrine tumors on celiac disease the evolution was favorable without recurrence.

***Conclusion:*** MTSI are rare tumors. In our study, there is a slight feminine predominance. Ultrasound and CT play an important role in the extension assessment. Their site and histological type is varied. Their curative treatment remains essentially surgical. 75% of our patients with adenocarcinoma died while neuroendocrine tumors were of favorable prognosis.

***Keywords:*** Small intestine, malignant tumors, adenocarcinoma

---

***PP-581***

## *Role of EUS in vascular interventions*

**Malay Sharma, Nikhil Mahajan, Mahesh Patil, Sunil Reddy, Gaurav Ratnaparkhi, Piyush Somani**

*Jaswant Rai Speciality Hospital, Uttar Pradesh, India*

***Background/Aims:*** Endoscopic ultrasound (EUS) provides valuable assistance in the management of different disorders involving vessels. EUS assisted evaluation and guided intervention of vascular structures are challenging procedures. Major vessels can be thoroughly traced, identified and punctured if required. The indications of vascular puncture for venous and arterial diseases are emerging. The current available literature has shown diagnostic punctures in portal vein and through aorta. Therapeutic intervention by haemostatic agent in cases of venous bleeding (varices) is also a routine for fundal varices at some institutions.

***Materials and Methods:*** Study Population: A total of 91 patients underwent assisted or guided vascular interventions by EUS over a period of 12 years from April 2007 to April 2019

***Study Design:*** Single Centre prospective study.

***Results:*** Procedures were performed in hemodynamically stable patients in endoscopic suite under general anaesthesia/conscious sedation using linear/radial echo endoscope. 22/25 Gauge needles were used.

***Conclusion:*** Vascular punctures are challenging. Our study suggests the feasibility, safety and efficacy of EUS-guided vascular interventions in selected patients. Nevertheless, thoughtful evaluation of indication in each EUS-guided vascular procedure is mandatory. The development of new tools designed for EUS-guided vascular therapy is needed.

***Keywords:*** Endoscopic ultrasound, vascular intervention

| Procedure | No. of Patients | Efficacy | Adverse Events | Mortality |
|---|---|---|---|---|
| Varix Glue alone/ Glue + coil- | 49 | 100% | Nil | Nil |
| Gastric Varices | 34 | | | |
| Rectal Varices | 13 | | | |
| Ectopic Varices | 2 | | | |
| NON VARICEAL BLEED | 9 | | | |
| Dieulafoy's (assisted) | 8 | | | |
| GDA bleed (tumoral bleed) | 1 | | | |
| Vascular puncture | 16 | 100% | Nil | Nil |
| Trans Aortic and Trans IVC access to Lymph nodes | 12 and 2 respectively | | | |
| IVC tumour FNAC | 1 | | | |
| Portal vein tumour FNAC | 1 | 100% | Nil | Nil |
| Pericardial Mesothelioma biopsy | 1 | 100% | Nil | Nil |
| PSEUDOANEURYSM endotherapy | 7 | 85% | 1 | 1 |
| THROMBOLYSIS in portal venous system thrombosis | 8 | 75% | Nil | Nil |
| THROMBOLYSIS in pulmonary artery thrombosis | 1 | 100% | Nil | Nil |

***PP-582***

## *Side effects of biotherapy in IBD: About 27 cases*

**Walid El Ouardi, Nawal Lagdali, Camelia Berhili, Imane Benelbarhdadi, Mohamed Borahma, Fatima Zahra Ajana**

**Medicine C Chu Ibn Sina, Rabat, Morocco**

***Background/Aim:*** The general tolerance of anti-TNF treatments is good but expose to many undesirable effects. The purpose of our study is to report our experience on biotherapy tolerance.

***Materials and methods:*** This is a descriptive study of patients on biotherapy who have had an adverse effect following this therapy.

***Results:*** Out of a total of 129 patients on biotherapy, 27 patients or 20.9% had an adverse effect, representing 24 cases of Crohns and 03 cases of UC. 81.48% were on infliximab and 18.52% on adalimumab. The average time of onset: 10 months. The nature of effects that occurred: 40.7% of specific infections: 10 cases of tuberculosis (37%) and one case of severe herpes zoster; 25.9% of allergic reactions including 2 cases of anaphylactic shock, 14.8% of paradoxical reactions: 3 cases of psoriasis and one case of paradoxical rheumatism, 3.7% for each of the following manifestations: asthma, sinus bradycardia, optic neuritis, breast cancer and a case of myogenic damage. On the therapeutic side, we proceeded with a temporary cessation of treatment with a specific treatment in case of infection, and a permanent cessation of the molecule in case of allergy as well as for the case of breast cancer. For the paradoxical reactions we switched the molecule in 1 case, we completely stopped the treatment in one case and continued the treatment in the other cases. For the case of asthma, associated symptomatic treatment was necessary but the patient preferred stopping treatment, and optic neuritis was a contraindication to any anti-TNF. Evolution was good in all our patients including cases of tuberculosis in which we could restart the anti-TNF treatment after 02 months of anti-bacillary treatment.

***Conclusion:*** Anti-TNF treatments expose to many side effects, sometimes very severe, in particular a risk of opportunistic infections including tuberculosis, hence the interest of clinical surveillance.

***PP-583***

## *Association between survival scores and response to ursodeoxycholic acid in primary biliary cholangitis*

**Lajouad Sanae, Benelbarhdadi Imane, Berhili Camelia, Lagdali Nawal, Borahma Mohamed, Ajana Fatima Zahra**

*Ibn Sina University Hospital Center, Rabat, Morocco*

***Background/Aims:*** The Ursodeoxycholic acid (UDCA) presents standard treatment for primary biliary cholangitis (PBC).Its prescription at an early stage allows slow the progression of the disease and improves survival. Thus, the biological response to AUDC is considered as the main predictor of survival without transplantation hepatic. New scores, the Globe-score, and UK-score have been recently validated as the main prognostic factor during PBC. The aim was to study the association between the Globe-score, UK-Score and the response to the UDCA during PBC.

***Materials and Methods:*** Its about a retrospective study gathering all cases of PBC treated By UDCA at the dose of 13-15mg / kg over a 22-year period (January 1998-May 2019).The response to treatment was defined by the Paris II criteria at 1 year (A serum rate alkaline phosphatase (ALP) ≤1.5 times the upper limit of normal (ULN), an aspartate aminotransferase (ASAT) rate ≤1.5 times the ULN, normal bilirubinemia). The Globe-score and UK-PBC score were calculated in all our patients. Statistical analysis of the data was done using IBM Statistics SPSS software. The comparison between good responders to treatment and non-responders was performed using the Chi-square test for qualitative variables and the Mann-Whitney test for quantitative variables. An association of variables was considered statistically significant if $p<0.05$.

***Results:*** During the study period, 90 cases of CBP were collected. It was about 85 women and 5 men. The average age was 49±12.3. 52.3% patients (n=34) had a complete therapeutic response while the no response was retained in 31 patients (47.7%) after one year of treatment with UDCA. The average value of the Globe score for good responders was-0.62 (-0.72; -0.36) and for non-responders was 1.53 (1.32; 1.75) with a statistically significant difference ($p<0.001$). The average value of UK-score at 5 years; 10 years; 15 years for good-responders was 1.8% (1.6-2.5); 5.9% (5.2-8.2); 10.7% (9.5-14.8) and non-responders was 9.1% (6.7-9.9); 27.4% (20.4-29.5); 44.9% (34.6-47.8) respectively with a statistically significant difference ($p<0.001$).

***Conclusion:*** This analysis confirms the association between the Globe-score, UK-PBC score and the response to UDCA during primary biliary cholangitis.

***Keywords:*** PBC, Globe-score, UK-Score, Paris II criteria, UDCA

---

***PP-584***

## *A sign of portal hypertension: Gamma-gandy bodies*

**Fatih Kıvrakoğlu, Yunus Halil Polat, Rasim Eren Cankurtaran, Mustafa Tahtacı, Osman Ersoy**

*Department of Gastroenterology, Ankara Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*

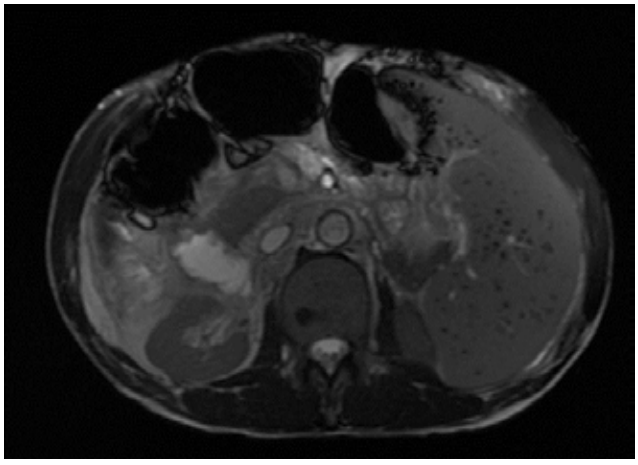
***Introduction:*** Gamma-Gandy bodies (GGB) are iron deposits caused by hemorrhage in the spleen parenchyma due to portal hypertension. GGB includes calcium, hemosiderin and fibrous tissue.

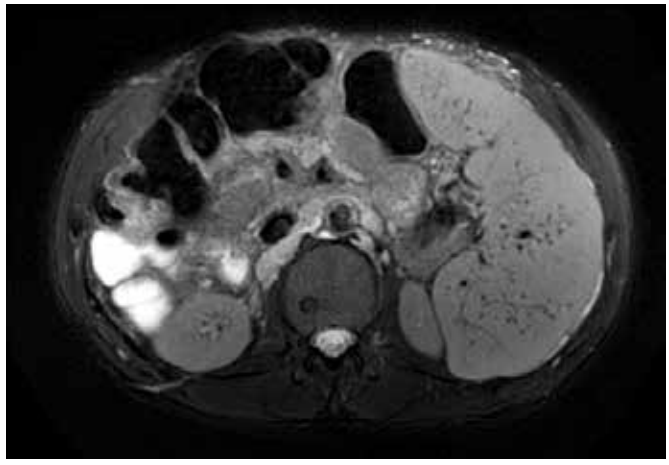
***Case:*** A 49-year-old male was admitted to the hospital with complaints of abdominal pain. He had undergone liver transplantation due to HBV-induced liver cirrhosis 6 years ago. Physical examination revealed moderate ascites and splenomegaly. His skin and conjunctivas were pale. Endoscopy showed grade 3 esophageal varices and endoscopic band ligation was performed. Abdominal MRI revealed a collection of 21x39 mm adjacent to the hepatectomy line. The parenchyma of the transplanted

liver was homogeneous and its contours was regular. The main portal vein was found to be open, measuring 20 mm at its widest part. Splenic vein was dilated and tortuous. Spleen size incerased significantly (long axis 215 mm). Numerous milimetric gamma-gandy bodies were observed in spleen (image 1-2). Portal venosus doppler usg was performed, flow velocity at right hepatic venosus measured 195 cm/sec, consistent with significant stenosis. These findings were consistent with portal hypertension.

***Conclusion***: Gamma-Gandy bodies are foci of organized hemorrhage due to portal hypertension in the spleen. Portal hypertension is the most common cause of GGB. Portal vein or splenic vein thrombosis, hemolytic anemia, leukemia or lymphoma, acquired hemochromatosis, and paroxysmal nocturnal hemoglobinuria are the other causes. MRI is superior to CT and USG in the evaluation of gamma-gandy bodies.

***Keywords:*** Gamma-gandy bodies, portal hypertension, splen





***PP-585***

## *Manometric patterns and outcomes of patients with esophago-gastric junction outflow obstruction (EGJOO)*

**Shobna Bhatia, Abhijeet Karad, Suprabhat Giri, Sridhar Sundaram, Megha Meshram**

*Seth Gordhandas Sunderdas Medical College, King Edward Memorial Hospital, Mumbai, India*

***Background/Aims:*** EGJOO is characterized by impaired relaxation of EGJ with intact or weak peristalsis. In most instances, no specific etiology is found. We present the characteristics of patients with diagnosis of EGJOO outflow obstruction on HRM their outcomes with conservative management.

***Materials and Methods:*** All HRM-EPT studies done between August 2017 to August 2018, for non-obstructive dysphagia were analysed. All patients were tested with ten 5-mL water swallows, 5 solid swallows and rapid drink challenge (RDC). Patients with diagnosis of EGJOO underwent evaluation using EUS and CT scan if necessary. These patients did not undergo intervention and were reassessed for symptoms on follow up.

***Results:*** Of 105 patients who underwent HRM, 11 (10.4%; mean age 43 y) met criteria for EGJOO. All patients had dysphagia (5 to solids and liquids, 4 only to solid, 2 only to liquids). On manometry, Median (SD) IRP for liquid swallows was 15.97 (2.26) mmHg, and for solid swallows 19.54 (2.8) mmHg. The maximum IRP was 19.9 mmHg for liquids and 23.4 mmHg for solids. Of 11 patients, 4 patients had normal IRP on liquid swallows; diagnosis of EGJOO was made on testing with solid swallows. How-

ever, median IRP values with solid swallows were similar in patients with normal IRP with liquid (IRP 19.3 mmHg) as compared to abnormal study with liquid swallows (20.1 mmHg) (p >0.05). One patient had panesophageal pressurisation on RDC. EUS was normal in 5 patients. In 1 patient, there was mediastinal lymphadenopathy seen on EUS and 1 patient had esophageal indentation from the spine on CT. During follow up (median 9 months), all but one patient reported complete resolution of dysphagia, without any intervention.

***Conclusion:*** Testing with solid swallows is important to diagnose patients with EGJ obstruction, as the diagnosis may be missed with liquid swallows alone. Most of the patients with EGJOO reported improvement in their dysphagia during follow up, without intervention.

***Keywords:*** EGJOO, high resolution manometry

---

***PP-586***

## *Spontaneous gastric rupture in a 19-month-old Nigerian child*

**Osasumwen Osagie[1], Frances Abiemwense Ehirim[2], Olayinka Ezomo[2]**

*[1]University Of Benin Teaching Hospital, Benin City, Edo State, Nigeria*
*[2]Central Hospital, Benin City, Edo State, Nigeria*

Spontaneous Gastric Rupture is a rare clinical condition that produces the clinical manifestations of an acute surgical abdomen. This term is used to describe instances in which there is no history of trauma and no pathological changes on the wall of the stomach to account for the rupture. Although occasionally found in adults and reported in neonates, it is relatively rarer in children outside the neonatal period. No case has been reported in Nigerian children. We report the case of a 19 month old Nigerian boy brought to the emergency ward of a General hospital with complaints of vomitting, diarrhoea, weakness and fever which developed over 6 days before presentation. His vomitus was noted to have been blood stained on the day of admission and he passed blood in his stools subsequently. On the day after admission, his abdomen became distended. There was no history of trauma to the abdomen. He was in respiratory distress, febrile, pale, dehydrated, had tachycardia and a distended abdomen with guarding initially restricted to the epigastric region which later became generalized. Blood examination revealed anaemia and leucocytosis. Abdominal ultrasonography showed echogenic intraperitoneal fluid collections. He was then referred to a tertiary hospital where he was resuscitated and had an emergency laparatomy. There was a 1.5cm perforation on the lesser curvature of the stomach which was walled off by omentum. The perforated wall was repaired and an omental patch placed on it. He however developed complications post-op which necessitated a 6 day stay in the Intensive Care Unit. He was subsequently discharged after 4 weeks, has had uneventful follow up visits and is presently stable. Spontaneous Gastric Rupture beyond the neonatal period is extremely rare in Childhood. Early diagnosis and surgery are mandatory to avoid fatal complications. The insidious mode of presentation and delayed treatment due to late presentation to the hospital in our patient resulted in the complication of peritonitis, sepsis, a turbulent post-op period and a prolonged hospital stay.

***Keywords:*** Spontaneous gastric rupture

---

***PP-587***

## *Detection of infection by helicobacter pilory and gastric cancer when correlating endoscopic study and pathological report*

**Sandra Milena Rojas Molina, Rolando Medina, Juan Felipe Sanjuan, Lina Maria Leiva**

*Universidad Surcolombiana, Neiva, Columbia*

***Background/Aims:*** In 1994, the International Bureau of Cancer Research classified the bacterium Helicobacter pylori as a carcinogen or cancer-causing human, despite conflicting results at that time. Since then, colonization of the stomach with Helicobacter pylori has increasingly been accepted as an important cause of gastric cancer and gastric lymphoma of lymphoid tissue associated with the mucosa. The early use of upper endoscopy in patients with gastrointestinal problems may be associated with a higher rate of detection of early gastric cancers. Early gastric cancers that are curable are usually asymptomatic and are only detected infrequently outside the scope of a screening program. Detection is not widely done, except in countries that have a very high incidence, such as Japan, Venezuela and Chile. Gastric cancer is one of the most common cancers in the world. However, there are significant differences in the incidence of gastric cancer by region. The value of the examination of asymptomatic individuals for gastric cancer is controversial even in areas with a relatively high incidence of gastric cancer.

***Materials and Methods:*** Retrospective, observational study, case series that includes all patients who perform an endoscopy of the digestive tract during 10 months of study.

***Results:*** Results during 10 months, 974 encoscopies of upper digestive tract were performed in patients with a history of gastritis, of which 58% corresponded to women, with an average age of 52 years (minimum 13, maximum 98 years), in 41% of the pathologies. infection was reported by Helicobacter pylori, gastric neoplasia was found in 7%, of which 3.6% corresponded to intestinal type adenocarcinoma, 3% diffuse and 0.3% lymphomas, other pathologies with some degree of gastritis.

***Conclusion:*** Although some observational studies suggest that screening in areas of high incidence of gastric cancer have contributed to the early detection of cancer and to a general decrease in gastric cancer mortality, there are no data from large randomized trials demonstrating a lower mortality related to gastric cancer in screened populations. Detection of gastric cancer can be cost-effective for high-risk subgroups, but not for low-risk populations. H. pylori infection is associated with a complex interaction between genetic, environmental and bacterial factors, which potentially explains the different possible outcomes after infection. Several studies in humans have shown a clear association between H. pylori infection and gastric adenocarcinoma. The link has been demonstrated in the intestinal and diffuse subtypes of gastric cancer, a complete treatment should be carried out to achieve eradication of Helicobacter pylori in order to reduce the risk factor associated with gastric cancer.

***Keywords:*** Endoscopy of the digestive tract, Helicobacter pylori, gastric neoplasia.

---

***PP-588***

## *Rheumatological manifestations of Crohn's disease: A monocentric study in Turkish population*

**Kübra Köken[1], Buğu Bulat[1], Ece Bilgiç[1], Hülya Çetinkaya[2], Mehmet Bektaş[2], Murat Toruner[2], Aşkın Ateş[3]**

*[1]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[2]Division of Gastroenterology and Hepatology, Ankara University School of Medicine, Ankara, Turkey*
*[3]Department of Rheumatology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Rheumatologic manifestations (RM) are common extra-intestinal manifestations in patients with IBD. On literature 10-20% axial involvement, 1-12% ancylosing spondylitis (AS), 10-20% peripheral involvement are reported. In our study we aimed to show prevalance of musculoskeletal and mucocutaneus involvements of Crohn's disease (CD)

***Materials and Methods:*** In this retrospective study 213 inpatients with CD were included between June 2016 and March 2018. RM were obtained from systematic patient' questionaire and rheumatology consultations. Subgroups were described as axial arthropathies, peripheral arthritis, both axial and peripheral artritis and diagnosed rheumatologic diseases such as AS, rheumatoid arthritis (RA) etc.

***Results:*** Included 213 patients' 113 were male (53%) and 46%(100) were female. Mean age was found 40 and mean disease age was found 6,77. RM were reported in 69 patiens(32%). Axial involvement was%21, 7.5% of patients had AS. 6.5% patients had both axial and peripheral artritis involvement, 0.4% RA and 0.4% Familial Mediterranean fever (FMF). Initial treatment of 52 patients's (75%) was mesalamine monoterapy or mesalamine combinations with azathioprine or budesonide. And 25 patients (36.2%) were still under remission with mesalamine and azathioprine combination. 44 patients's (63.7%) treatment was changed to anti-TNF treatments. 22% of those patients were still use mesalamine combined with anti-TNF treatment.

***Conclusion:*** We studied frequency of RM of CD and their response to treatment. In order to prevent from arthritic deformations and complications anti-TNF treatments are frequently used in these patients, mesalamine and its combinations have important role on initial treatment. And more than one-third of the patients were under remission with mesalamine and its combinations.

***Keywords:*** Crohns disease, rheumatologic manifestations

***PP-589***

## *Endoscopic and histologic patterns of terminal ileitis in Crohn's disease: A single center study*

**Zeynep Melekoğlu Ellik[1], Fadime Gül Salman[2], Abdullah Mubin Özercan[1], Aysun Calışkan Kartal[1], Selim Sevim[2], Hülya Çetinkaya[1], Arzu Ensari[2]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Pathology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Crohn's disease frequently presents with terminal ileitis (TI). Histologically, TI may take the form of active and/or chronic inflammation in various combinations. The aim of the present study was to evaluate endoscopic and histologic presentation patterns of Crohn's disease and to assess correlation with clinical parameters.

***Materials and Methods:*** Endoscopic and histologic patterns of terminal ileitis (TI) in a total of 139 patients diagnosed as Crohn's disease were determined and correlated with clinical and laboratory parameters including hemoglobin, leukocyte and platelet counts, CRP, and sedimentation rate, and frequency of diarrhea. Endoscopic patterns included isolated TI, TI+ right, TI + left, TI + pan colitis, and neo-TI while histologic patterns comprised of active, chronic inactive, chronic mildly active and chronic active ileitis.

***Results:*** The cohort consisted of 55 female and 84 male patients with a mean age of 40.43 years. Of these 65 were initial diagnosis while 74 were followed-up for a mean period of 4.93 years. Patterns of intestinal involvement showed 81 (58.1%) isolated TI, 12 (8.6%) TI + right colon, 10 (7.1%) TI + left colon, 17 (12.2%) had TI + pancolitis, and 10 (7.1%) neo-TI. Histologic pattern analysis showed 13 (9.4%) active, 11 (7.9%) chronic inactive, 55 (39.6%) chronic mildly active and 60 (43.2%) chronic active ileitis. Cases with isolated TI more frequently presented with chronic active ielitis (86.4%) compared with other involvement patterns ($p<0.05$). Though not significant, those with active ileitis had higher leukocyte, platelet counts, CRP and sedimentation rates than cases with chronic ileitis. Patients receiving anti-TNF therapy (n=19) showed no significant difference for endoscopic and histologic patterns ($p=0.154$ ve 0.343 respectively).

***Conclusion:*** Awareness of the various endoscopic and histologic patterns of presentation is crucial for an accurate diagnosis of Crohn's disease.

***Keywords:*** Crohn's disease, terminal ileitis, inflammation

***PP-590***

## *Gastrointestinal metastasis of malign melanoma*

**Fatih Kıvrakoğlu, Yunus Halil Polat, Rasim Eren Cankurtaran, Öykü Tayfur Yürekli, Osman Ersoy**

*Department of Gastroenterology, Ankara Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*

***Introduction:*** Malignant melanoma is the most serious form of skin cancer. Malignant melanoma is the most common metastatic tumor of the gastrointestinal system (GIS). We present a case of melanoma with metastasis to the small intestine and stomach.

***Case:*** A 55-year-old male patient had no chronic disease or drug use. The patient was admitted to the hospital with swelling in the neck. A malignant melanoma metastasis was detected in the biopsy of the patients lymphadenopathy (LAP) in the left cervical region. However, the primary lesion of the patient could not be detected. No GIS involvement was detected on Pet-CT. Endoscopy was planned because of dyspeptic complaints. Endoscopy was performed and multiple large base nodular lesions were seen in the duodenum, bulbus and corpus-cardia junction (Figure 1-3). Biopsies from the lesions were histologically compatible with malignant melanoma.

***Conclusion:*** Clinically significant GI involvement is present in 1-4% of all patients with malignant melanoma. The prognosis of primary and metastatic melanoma disease of upper GIS is poor because the disease has advanced malignant behavior and the frequency of systemic metastasis at the time of diagnosis is high.

***Keywords:*** Malign melanoma, gastrointestinal metastasis

***PP-591***

## *A simple score to predict the severity of acute pancreatitis*

**Greta Maria Dancu, Roxana Sirli, Ioan Sporea**

*Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** The aim of the study was to assess the utility of a simple score calculated 48 h after admission in predicting the severity of AP. The score we propose includes neutrophil to lymphocyte ratio 48 h after admission (NLR48H) and C reactive protein (PCR48H), both parameters known to be independently associated to severe forms of AP.

***Materials and Methods:*** A retrospective study was performed in 310 hospitalized patients between 01.01.2018 and 30.06.2019. All have been diagnosed with AP-based on two of the following three criteria: lipase >3X reference value, ab-

dominal pain, imaging findings. Patients diagnosed with cirrhosis were excluded from the study. The patients were divided into mild vs. moderate/severe AP, using the Atlanta criteria. NLR and C reactive protein were evaluated 48 h after onset. The receiver operating characteristic (ROC) curve analysis was performed to assess the cut-offs and performance of each criteria to predict the severity of AP, than a score was calculated using multiple regression analysis.

***Results:*** The mean age of the study group was 57 years, 53% were male, 62% of the cases has mild forms of AP, 32% were classified as moderate, and 6% as severe forms. The etiologies of AP were: biliary – 155 patients (50%), alcohol abuse – 49 patients (16%), non A non B – 43 patients (14%), iatrogenic, post-ERCP – 25 (8%), hypertriglyceridemia – 18 patients (6%). For NLR48H we calculated a cut-off value of 6.28 and it had 62% sensitivity (Se) and 71% specificity (Sp) to predict moderate/severe forms of AP, with an AUROC of 0.7. The cut off value we calculated for C reactive protein was 145, with 46% Se and 91% Sp, with an AUROC of 0.7. Cumulating the two evaluated factors, using multiple regression analysis we obtained the following score: SCORE=NLR48H*0.03+PCR48H*0.001. For a cut off value of >0.25 it had an AUROC of 0.74, with 75% Se and 63% Sp (p<0.001).

***Conclusion:*** In our group, the score we proposed, including both NLR48H and PCR48H, lead to a moderate increase in sensitivity as compared to the parameters considered alone, but with a significant loss of specificity, especially as compared to PCR.

***Keywords:*** Pancreatitis, severity, score

---

***PP-592***

## *Isolated elevation of antimitochondrial antibodies (AMA): Personalized follow-up according to the risk of progression*

**Joana Carvão, Vítor Pereira, Nélia Abreu, Ilidio Abreu, Carla Sousa Andrade, Luis Jasmins**

*Hospital Central Do Funchal, Funchal, Portugal*

***Background/Aims:*** The presence of AMA in patients with elevation of alkaline phosphatase (ALP) allows the diagnosis of primary biliary cholangitis (PBC). Without cholestasis however is insufficient for the diagnosis. The European Association for the Study of the Liver (EASL) recommends annual follow-up for these patients in order to detect liver disease, with a low evidence level. Aim: Characterize the population with isolated AMA elevation and further identification of group risks for the progression of CBP.

***Materials and Methods:*** Observational study of a prospectively maintained database of AMA positive patients between January 2010 and December 2018. A positive AMA was considered by indirect immunofluorescence reactivity testing (≥1: 40). Exclusion criteria: previous diagnosis of PBC, cirrhosis, any upper limit of normal (ULN) of the reference level for ALP (120 mg/dL). Baseline levels were defined with simultaneous collection of AMA. When applicable, liver blood tests were collected annually. Statistical analysis was performed with SPSS (v.23). Significance level was set at <0.05.

***Results:*** 49 patients were included in this study of which 93,9% were female and the median age was 51 years (40.5 – 62.5). 36,7% had a diagnosis of systemic autoimmune disease. Baseline median values of ALP, gamma-glutamyl transferase (GGT) and total bilirubin (TBil) were 76mg/dl (59-86,5), 29.7 mg/dL (18.7 – 58.3) and 0.5 mg/dL (0.4 –0.7), respectively. Only 28.6% of patients were submitted to annual biochemical follow-up. 5 patients fulfilled PBC EASL criteria in the follow-up. These patients had higher baseline cholestasis levels than those who did not develop PBC (median ALP mg/dL 88 vs. 70, p=0.007; GGT mg/dL 118 vs. 27 p=0.002; TBil mg/dL 1.3 vs. 0.45, p=0.002, respectively). ALP, GGT and TBil had an area under the curve (AUC) for predicting PBC of 0.854, 0.958 and 0.933, respectively (p<0.05). An ALP value of >86.5 mg/dL had a 75% sensibility and 80% specificity in predicting the development of PBC.

***Conclusion:*** Patients with higher baseline cholestasis levels, in the normal range (86-120 mg/dL) may have a higher risk for developing PBC. The further categorization of a risk group suggests a personalized rather than a generalized follow-up.

***Keywords:*** Antimitocondrial antibodies, primary biliary cholangitis

***PP-593***

## *Postoperative endoscopic recurrence of Crohns disease after ileocecal resection: prevalence and risk factors*

**Walid El Ouardi, Manal Mahmoudi, Nawal Lagdali, Camelia Berhili, Imane Benelbarhdadi, Mohamed Borahma, Fatimazahra Ajana**

*Medicine C Chu Ibn Sina, Rabat, Morocco*

***Background/Aims:*** Intestinal resection in Crohns disease may be necessary in cases of stenosis and / or fistula complications, more rarely in case of a resistance to medical treatment. The majority of patients (50 to 70% depending on the studies) must undergo at least one bowel resection during their illness. The disease relapses after intestinal resection in almost 50% of patients at 10 years. After resection, the clinical relapse is preceded by an endoscopic relapse, localized nearly always at the level of the anastomosis, and above at the level of the neoterminal ileum. The aim of our work is to study the prevalence of clinical postoperative recurrence in Crohns disease after ileocecal resection, and to determine the predictive factors for this recurrence.

***Materials and Methods:*** Our monocentric retrospective study conducted in a HepatoGastroEnterology department allowed us to study 155 patients with Crohns disease operated (ileocecal resection) from January 2011 on a total of 560 Crohns patients over the same period. Statistical analysis is performed using SPSS software version 22.0.

***Results:*** Out of a total of 560 patients with Crohns disease, 155 (28%) had ileocecal resection, representing 82 men and 72 women with a sex ratio (H/F) of 1.13. The average age of our patients was 30 years +/-10 years; 42% of patients were smokers; 12% had a family history of IBD and 27% had a history of appendectomy. According to the Montreal classification, ileal localization was present in 12 patients (7.7%) and ileocecal location in 103 patients (66%). The stenosing phenotype was present in 67 patients (43%) and the penetrating phenotype was present in 43 patients (27%), and 49 patients had anoperineal lesions. The operative indication was inaugural in 67 patients (43%). Surgical indications were stenosis in 52 cases (33%); a stenosing and penetrating form in 30 cases (19%), a digestive fistula in 25 cases (16%), a severe acute colitis in 9 cases (6%) and an abscess in 6 cases (4%). During follow-up, endoscopic recurrence was noted in 45% of our patients with a mean time to postoperative recurrence (POR) of 12 months (8-116 months). Predictive factors for endoscopic postoperative recurrence in a univariate and multivariate analysis include: smoking (p=0.017, OR=5.7 (1.5-14)), family history of IBD (p=0.025, OR=1.7 (1.2-3)), history of appendectomy (p=0.045, OR=1.9 (1.2-7)), stenosing phenotype (p=0.003, OR=6 (3-15)), ileocolic localization (p=0.007, OR=5 (2.5-17)), the presence of perianal manifestations (p=0.027, OR=3.7 (1.5-10)), and a delay between diagnosis and surgery less than one year (p=0.007, OR=5.7 (1.5-11)).

***Conclusion:*** Endoscopic recurrence has been observed in 45% of our patients, and its detection makes it possible to institute an adequate management strategy in order to precede clinical recurrence. Smoking, family history of IBD, history of appendectomy, stenosing phenotype, ileocolic localization, the presence of perianal manifestations and a delay between diagnosis and surgery less than one year are all risk factors for postoperative recurrence.

---

***PP-594***

## *Cholangioscopy for biliary stricture*

**El Bacha Hicham[1], Harizi Rafik[2], Laugier Rene[3], Leblanc Sarah[2], Barange Karl[4], Fumex Fabien[5], Napoleon Bertrand[5], Vedrenne Bruno[6], Grabar Sophie[2], Prat Frederic[2]**

[1] *Faculte De Medecine Et De Pharmacie Universite Mohammed V Rabat, Rabat, Morocco*
[2] *Aphp*
[3] *Marseille*
[4] *Toulouse*
[5] *Lyon*
[6] *Mulhouse*

***Background/Aims:*** Diagnosis of biliary stricture is challenging, after a first work out including clinical biological and imaging data some of them remain indeterminate cholangioscopy help to visualise and diagnose stenosis etiology the aim of our work is to assess sensibility and specificity of cholangioscopy in biliary stricture.

***Materials and Methods:*** Our study is a multicentric study from 2017 to 2018 we gave to 7 expert in endoscopy videos of cholangioscopy exam of biliary stenosis we analysed then lesion description, their sensitivity and specifity for malignancy diagnosis

***Results:*** We included 92 patients for 98 cholangioscopy, with a mean age of 69, gender equity, 47 have had already a metallic stent and 35 a plastic stent primary statistic analysis found: low interobserver agreement with a kappa between 0.1 to 0.4. variable sensitivity to detect malignancy between 36% of 80% variable specificity between 52% 81%, 7 criteria were usefull to help in stenosis etiology Endobiliary Material Circonferential lesion Polypoid pattern Villous pattern Granular pattern Irregular Vessels Erythematous color

***Conclusion:*** Cholangioscopie is usefull to detect biliary stenosis etiology, some endoscopic lesion are helpful for the diagnosis, more data analysis are prossessed.

***Keywords:*** Biliary stricture, cholangioscopy

---

***PP-595***

## *Peutz-Jeghers syndrome: From benignity to malignancy*

**Oussama Kharmach, Khaled Abdelwaly, Imane Benelbarhdadi, Nawal Lagdali, Camélia Berhili, Mohamed Borahma, Fatima Zohra Ajana**

*Department C, Ibn Sina University Hospital, Rabat, Morocco*

***Introduction:*** It is an inherited gastrointestinal disease characterized by hamartomatous polyps and cutaneomucous pigmentation. The aim of our work is to evaluate the risk of complications and cancer in patients with PJS.

***Case:*** 20 year old woman, operated for intussusception, family history of lentiginosis. Hospitalized for gastroesophageal reflux disease. examination: periorificial lentiginosis, touching palms and soles to. -50 year old woman, operated for intussusception on PJ polyp, admitted for assessment of her disease. examination: absence of lentiginosis. Colonoscopy : polyps in the rectum, transverse colon and caecum. Absence of polyps at the CT enterography and upper GI endoscopy. Abdominal ultrasound/MRI: polyp in the gallbladder. Thyroid and Breast ultrasound: 2 nodules classified TIRADS 2 and 3, 2 nodules BI-RADS 2 and 3. The patient underwent a cholecystectomy whose anatomopathological study revealed an adenocarcinoma, no metastases on thoraco-abdominopelvic CT. The evolution is favorable until today.

***Conclusion:*** Approximately 16% of hamartomas are the site of dysplastic lesions corresponding to the development of adenomatous lesions of variable degree of dysplasia (precancerous lesion). For digestive tumors, the cumulative risk is 42% at 60 years, justifying a monitoring.

***Keywords:*** Hamartoma, dysplasia, cancer

Upper endoscopy: polyps in the fundus, pylorus, duodenum, with 2 caecal polyps at the colonoscopy. Anatomo-pathology: PJ hamartomatous polyp.

CT enterography: duodenal, jejunal, ileal polyps. The patient is followed regularly and has been sensibilized on the risk of complications.

***PP-596***

## *Spontaneous fistulisation of pancreatic pseudoscyst to the digestive tract: A complication or a cure?*

**El Atiq Sara[1], Souadka Amine[1], Elbouhaddouti Hicham[2], Raouf Mohsine[1], Ait Taleb Khalid[2]**

*[1]National Institute of Oncology of Rabat, Rabat, Morocco*
*[2] University Hospital Hassan II Fez, Fez, Morocco*

Pancreatic pseudocysts are often the evolution of acute or chronic pancreatitis. Three different strategies for pancreatic pseudocysts drainage are available: endoscopic (transpapillary or transmural) drainage, percutaneous catheter drainage, or open surgery. One of the exceptional complications is perforation to the duodenal bulb that may be life-threating. We report the case of a 48-years-old patient with no significant pathological history; admitted through emergencies for the man-

agement of stage "E" pancreatitis with a Baltazar severity score of 8. The evolution was marked by the development of a large symptomatic pancreatic pseudocyst at the omental bursa (80x34mm) at day 37 from the pancreatic discovery. During the hospitalization a sudden decrease of the pain and abdomen volume indicate a repeat CT scan that showed a spontaneous fistulisation to the duodenal bulb with no gastrointestinal bleeding. Ten months later Oesophagogastoduodenoscopy showed a spontaneous closure of the fistula and a laparoscopic cholecystectomy was safely performed. Uncomplicated spontaneous fistulisation of pancreatic pseudocyst is rare and lifetreathing complication that may allow an additional option of micro-invasive drainage. However it should be managed carefully by gastroenterologists, surgeons and intensive care unit in order to optimize this situation and to avoid useless intervention. Repeated CTscan should be always monitored whenever there is a change in symptoms evolution of psesudocyst.

***Keywords:*** Endoscopic drainage, pancreatic pseudoscyst, fistulisation

---

***PP-597***

## *Clinicopathological features of gastroenteropancreatic neuroendocrine tumors: A retrospective evaluation of 61 cases*

**Mohamed Karim Temani Amal Khsiba Moufida Mahmoudi Mouna Medhioub Houda Belfekih[2], Emna Chelbi[3], Lamine Hamzaoui[1], Mohamed Msaddek Azzouz[1]**

*[1]Department of Gastroenterology and Hepatology, Faculté De Medecine De Tunis, Tunisia Mohamed Taher Maamouri Hospital Nabeul Tunisia, Nabeul, Tunisia, Nabeul, Tunisia*
*[2] Faculté De Medecine De Tunis, Regional Hospital Mohamed Taher Al Maamouri Chemotherapy Unit*
*[3]Department of Pathology Faculté De Medecine De Tunis, Tunisia Mohamed Taher Maamouri Hospital Nabeul Tunisia, Nabeul, Tunisia, Nabeul, Tunisia*

***Background/Aims:*** Neuroendocrine tumors arise from neuroendocrine cells in any part of the body; most frequently located in the gastrointestinal tract and the pancreas. Although Gastroenteropancreatic neuroendocrine tumors (GEPNETs) are a rare, heterogeneous group of tumors. Their prevalence has recently increased due to advanced diagnostic methods and increased awareness of the disorder. In the present study, we aimed to report the distribution and characteristics of GEPNETs.

***Materials and Methods:*** A retrospective descriptive study of 61 cases of GEPNETs in gastroenterology and general surgery departments of Mohamed Tahar Maamouri Hospital was conducted from January 2005 to decembre 2018. The current 2017 World Health Organization criteria, European Neuroendocrine Tumour Society classification and International Union Against Cancer (UICC) classification were used.

***Results:*** Among the 61 patients, there were 28 males (46%) and 33 females (54%) with a median age of 43 years (range, 10-80 years). The main symptoms were abdominal pain (83.6%) and carcinoid syndrome (5%). The tumour was revealed by a complication in 3 cases (5%). Twelve patients (19.6%) had metastatic lesions. The most common sites were the appendice (42.6%) and the pancreas (16.4%). The median tumour size was 2.34 cm (range, 0.2-11cm). Tumors were classified as: G1 in 37 cases (60.7%); G2 in 22 cases (36.1%); G3 in two cases (3.3%) and mixed adeno-neuroendocrine carcinoma in two cases (3.3%). Tumor size was positively correlated with the presence of metastases. Indeed, a size greater than or equal to 30 mm was more associated with metastases (p=0.018). A tumor size greater than or equal to 30 mm was significantly associated with a level of Ki67 greater than 10% (p=0.02). Histological grade was significantly correlated with tumor size (p=0,001). The tumor stage was positively correlated with: tumor size (p=0.001), the presence of metastases (p=0.001) and the presence of vascular emboli (p=0.001).

***Conclusion:*** This study constitutes a comprehensive analysis of the clinicopathological features of GEPNETs in a Tunisian population. GEPNETs may occur at any part of the digestive system. The diameter and pathological classification of tumor are the most important predictors for metastasis

***Keywords:*** GEPNETs

***PP-598***

## *Variceal bleeding, beyond the liver disease: Case report*

**Ahmed Badi, Mohamed Abu Hamaira**

*Hamad Medical Corporation, Qatar*

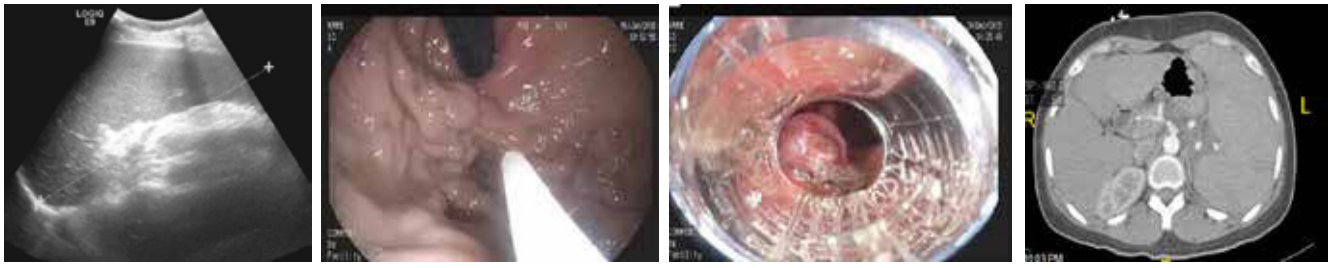
***Introduction:*** Varices are dilated blood vessels in the esophagus or stomach caused by portal hypertension. They cause no symptoms unless they rupture and bleed, which can be life-threatening (1). We report unusual cause of variceal bleeding which is polycythemia rubra Vera causing splenic vein thromboses. Splenic vein thrombosis (SVT) is known as one of the rare causes of upper gastrointestinal bleeding and is mostly seen in the fifth decade of life and male sex.

***Case:*** 39 years old Filipino Lady presented to the emergency room with history of hematemesis and melena for last 2 days. She had chronic headache for that she is advised to take paracetamol but did not work, so she took ibuprofen. She had more epigastric pain for which she took continuous ibuprofen too. During this GI bleed and after, she never had symptoms of dizziness, black out / syncope or palpitations with/without standing. Although she had active hematemesis and melena but her hemoglobin never dropped below 10g/dL.

Gastroscopy revealed:
Esophagus: normal, no varices
Stomach: full of blood and there is large clot in the fundus.
• Large fundal varices (tortuous and complex). Isolated gastric varices IGV1
• 2 large FIII ulcer seen in the fundus with one visible blood vessel seen on one gastric fold just near to gastroesophageal junction (Dieulafoys lesion) which is typical for location. One rubber band was applied on the visible vessel. 1 mg histoacryl was injected in varices and hemostasis is maintained.
Duodenum: normal
PMH: no chronic disease
PSH: no surgical intervention.
Social H/O; nonsmoker,
Lab test revealed:
HB 10g/dL. Baseline 17g/dL platelets 658x10 BUN 14 Creatinine 51
Hematocrit 33% baseline 50%
INR 1.2 Albumin 35 ALT 44

***Conclusion:*** Isolated obstruction (mainly due to thrombosis) of the splenic vein usually results in left-sided portal hypertension and isolated fundal varices formation. This syndrome is a rare cause of gastrointestinal bleeding. Pancreatic diseases are among the most common etiologies of splenic vein obstruction. Renal disorders are rarely reported as a cause of splenic vein thrombosis. 3.
We screen for most thrombophilia causes (Table-1).
— So, we deal with patient with Non cirrhotic liver.
— Isolated splenic vein thrombosis.
— Massive splenomegaly
— Negative hemophilia screen.
No evidence of pancreatitis or pancreatic mass on cross sectional imaging.
When we review her lab we notes that she had persistently high WBC, platelet and Hematocrit despite GI bleeding, so we screen for myeloproliferative Disorders, and we found mutation for *JAK 2* exon 12 is positive. And this patient met the WHO criteria for polycythemia Vera.
Patient with isolated gastric varices in Non cirrhotic patient and normal pancreas, Must be screened for causes of thrombophilia and to exclude Myeloproliferative disorder.
This case illustrate the workup for the patients of Isolated gastric varices when the common causes (liver, pancreas)are excluded .
ANA negative, Protein C and S Normal, Factor V leiden Normal
Anti Lupus and anti cardiolipin Ig M Normal, Anti Prothrombin III normal
homocystin Normal

***Keywords:*** Splenic vein thrombosis, polycythemia



***PP-599***

## *The role of resolvin D1 as a biomarker in cholangiocarcinoma*

**Özlem Gül Utku[1], Bilal Ergül[1], Züleyha Erdin[1], Üçler Kısa[2], Dilek Oğuz[1]**

*[1]Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*
*[2]Department of Biochemistry, Kırıkkale University School Of Medicine, Kırıkkale, Turkey*

***Background/Aims:*** Cholangiocarcinoma is the second most common primary epithelial malignancy of the liver after hepatocellular carcinoma. Currently, there is no reliable biomarker to confirm the presence of malignancy in high-risk individuals or biliary strictures. The aim of the study is to determine if Resolvin D1(a metabolite of omega-3 polyunsaturated fatty acids) can be identified in the serum of patients with biliary cancer and can be used as a diagnostic biomarker for cholangiocarcinoma.

***Materials and Methods:*** Thirty one patients with cholangiocarcinoma and 30 healthy subjects followed in our clinic between March 2018 and June 2019 were included in the study. Routine laboratory results of the patients were recorded from the hospital system. Blood samples for serum resolvin D1 measurement were stored in the refrigerator at-80 ° C. Resolvin D1 levels were measured by ELISA technique.

***Results:*** Resolvin D1 levels were 241.39 pg/mL (45.90-1237.29) in the cholangiocarcinoma, and 624 pg/mL (235-1345) in the healthy control group. There was a significant difference between the 2 groups ($p<0.001$). Resolvin D1 levels were lower in the cholangiocarcinoma group than in the healthy control group. In our study, resolvin D1 level was negatively correlated with tumor size and tumor stage.
***Conclusion:*** Cholangiocarcinoma typically forms in the setting of cholestasis and chronic inflammation.Reduction of lipid mediators involved in resolution increases the pro-inflammatory cytokines involved in the pathogenesis of cholangiocarcinoma. Decrease in resolvin D1 may trigger chronic inflammation and cholangiocarcinogenesis. Resolvin D1 will provide an important diagnostic contribution in clinical practice cholangiocarcinoma. Further studies are needed to determine whether Resolvin D1 might also play a role in the diagnosis of cholangiocarcinoma

***Keywords:*** Cholangiocarcinoma, pro-inflammatory cytokines, resolvin D1

***PP-600***

## *Iron pill-induced gastropathy*

**Arcelia Guerson Gil, Nicole Panarelli, Lawrence Brandt**

*Montefiore Medical Center, NY, USA*

Oral iron supplementation is the most common treatment for iron deficiency anemia (IDA), usually administered in either tablet or pill form. Normally considered a safe and effective method for treating IDA, major complications arise rarely as in our patient. This case of iron pill-induced gastropathy merits attention because of its rarity. An 80-year-old woman with a history of hypertension and unexplained IDA on oral iron supplements presented with intermittent epigastric abdominal pain, early satiety and black-colored stools for 4 months. On physical examination, the patient appeared well with normal vital signs. Lungs were clear and heart sounds were normal, without murmurs or gallops. Abdominal examination showed normoactive bowel sounds with mild tenderness to palpation in the epigastric region; no bruit was heard. Hematologic testing showed microcytic hypochromic anemia with a hemoglobin level of 6.9 mg/Dl. EGD identified an erythematous and friable fold with a yellowish hue and brownish stippling along the greater curvature (Figure 1). No obvious source of bleeding was found. The area was biopsied. Histopathology of the friable fold in the greater curvature revealed oxyntic mucosa with reactive gastropathy and extracellular iron deposits on the mucosal surface (Figure 2). Prussian blue histochemical stain confirmed its iron content (Figure 3). Oral supplementation with iron pills or capsules is the most common treatment for IDA. In most cases, minor side effects occur such as dark stools, constipation, and nausea. Rarely, as in our patient, therapeutic levels of iron tablet ingestion may cause gastropathy. Gastropathy, is a general term connoting abnormality, although without the inflammation that typifies gastritis. Iron depositions along the GI tract have been found in approximately 1% of all biopsies taken from endoscopic examinations. The mechanism of pill-induced gastropathy is likely mediated by oxygen free radical production resulting in damage to the gastric mucosa. Liquid oral iron supplementation does not produce the same detrimental effects of mucosal erosion and should be considered as a therapeutic option over pills or tablets for those suffering from pill-induced iron gastropathy. After EGD, our patient's treatment was switched to liquid iron supplementation and she rapidly had symptomatic improvement. We present this case to inform the clinician about iron pill-gastropathy entity and to make the endoscopist aware of its appearance.

***Keywords:*** Anemia, EGD, gastropathy

Figure 1.

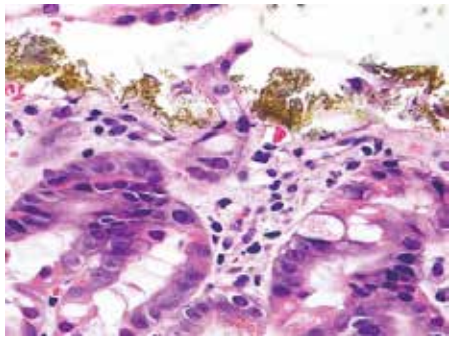


Figure 2.

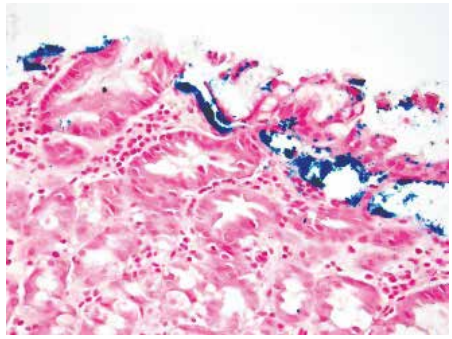


Figure 3.

***PP-601***

## *The gamma-glutamyl transpeptidase to platelet ratio for non-invasive assessment of liver fibrosis in patients with chronic Hepatitis B*

**Ala Ouni, Moufida Mahmoudi, Lamine Hamzaoui, Mohamed Mousadek Azzouz**

*Department of Gastroenterology, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia*

***Background/Aims:*** Many authors had proposed a novel fibrosis model ; the gamma-glutamyl transpeptidase (GGT) to platelet ratio (GPR), as an available non invasive test that could identify significant fibrosis or cirrhosis in patients with chronic hepatitis B. The aim of our study is to evaluate the correlation between GPR and Metavir fibrosis stages.

***Materials and Methods:*** We have performed a retrospective study in the gastroenterology department of the Nabeul Hospital between 2008 and 2018, including all patients followed for negative HBe antigen chronic hepatitis B with a viral load between 2000 and 20000 IU/mL, who had a liver biopsy to assess the stage of liver fibrosis using the Metavir score. The correlation of GPR with Metavir fibrosis stages was analysed using the Spearman test.

***Results:*** Ninety nine patients were enrolled with an average age of 35 years (14-60) and a sex ratio women/men=1.2. The mean viral load was 7696 IU/mL. The patients had a mean GGT and platelet count respectively of 27.3 IU/L and 219x$10^9$/L. The mean GPR was 0.26 (0.70 – 1.08). The Metavir fibrosis stage was distributed as follows: F0=33 (33.3%), F1=57 (57.6%), F2=8 (8.1%), F3=1 (1%) and none had a score F4. The Metavir fibrosis stages were positive correlated with GPR (r=0.26, p=0.009).

***Conclusion:*** In our study, the GPR can be used as a non-invasive marker to predict liver fibrosis in chronic hepatitis B.

***Keywords:*** Chronic hepatitis B, liver fibrosis

***PP-602***

## *Giant gastric heterotopia (GH) in the duodenal bulb (DB): A possible cause of gastric outlet obstruction (GOO)*

**Arcelia Guerson Gil, Vikram Singh, Ali Kazerouni Timsar, Lawrence Brandt**

*Montefiore Medical Center, NY, USA*

The presence of gastric mucosa within the DB usually is an incidental finding during endoscopy and is seen in up to 8.9% of cases. While GH usually produces no symptoms, our patient presented with symptoms of GOO, which we attributed to the large size of the GH lesion, occupying >50% of the DB. This case of DH merits attention due to its uncommon appearance and presentation. A 47-year-old woman with a history of insulin-dependent diabetes mellitus presented with abdominal pain, nausea, and post-prandial emesis for 1 year. Physical exam was normal, without a succussion splash or post-prandial abdominal distention. Hematologic testing showed a Hb 9.8 mg/Dl. Other labs, including basic metabolic panel and liver biochemical tests, were normal. Abdominal CT without IV contrast was non-diagnostic. EGD identified a single polyp in the DB measuring 1.5 cmx2 cm (Figure 1). Additionally, there was a more distal, irregular, cratered mass in the duodenum that was surrounded by a "carpet" of mucosal nodularity consistent with the appearance of Brunners gland hyperplasia (BGH) (Figure 2). Both areas were biopsied. The pathology of the polyp showed gastric heterotopia (Figure 3) and the cratered mass showed peptic duodenitis. GH is seen throughout the adult GI tract but most commonly in the duodenum, with an incidence of 0.5% to 8.9%. In most cases, GH causes no symptoms and is undiagnosed. When symptomatic, GH may cause abdominal pain from mucosal irritation secondary to the release of hydrochloric acid from parietal cells. Rarely, as in our patient, obstructive symptoms may be present. For symptomatic patients, proton pump inhibitors (PPIs) are the cornerstone of treatment as they help to decrease acid secretion and, therefore, mucosal irritation. After EGD, our patient was started on a PPI and rapidly had symptomatic improvement. We suspect that her abdominal pain resolved due to decreased acidity within the DB, and that obstructive symptoms improved secondary to decreased inflammation within the DB. We present this case as a rare example of GOO caused by GH.

***Keywords:*** Heterotopia, duodenal bulb, polyp

Figure 1.

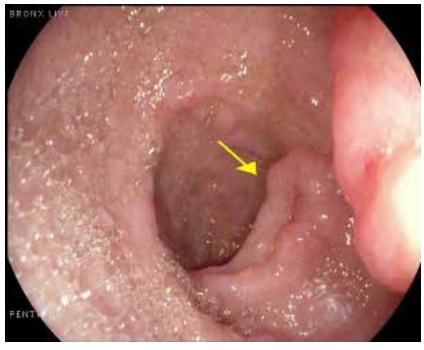


Figure 2.

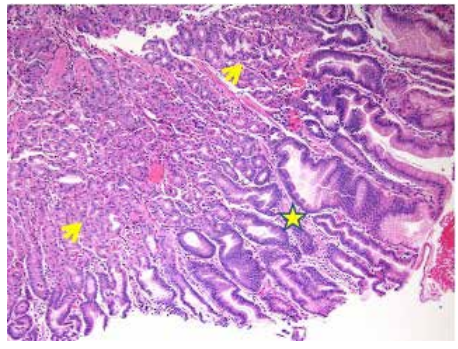


Figure 3.

***PP-603***

## *Individualized treatment of hepatic venous pressure gradient in patients with liver parenchymal diseases*

**Zeynep Ellik, Seray Akçalar, Emrecan Çelebioğlu, Özgün Ömer Asiller, Evren Üstüner, Sadık Bilgiç, Necati Örmeci**

*Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Hepatic venous pressure gradient (HVPG) and esophageal varices are beneficial tools for predicting increase the risk for bleeding, decompensation and life-threatening complications in liver cirrhosis. The aim of this study was to investigate the effect of individualized treatments according to hepatic venous pressure gradient measurement and its effect on morbidity and mortality for cirrhotic patients.

***Materials and Methods:*** Twenty-two patients with liver parenchymal diseases who were measured HVPG were included for the study. Demographic data, medical history, Child-Turcotte-Pugh and Model of End Stage liver disease score, clinical chemistry, liver stiffness values were recorded on the day of the procedure prior HVPG measurement. The degree of portal hypertension was determined by the invasive HVPG measurement.

***Results:*** Atorvastatine 20 mg per day was started in patients (n=8) who have HVPG <10 mmHg and without varices. Atorvastatine 20 mg/day and carvedilol 12.5 mg/day were started in patients (n=11) who have HVPG >10 mmHg or with esophageal varices. Also only carvedilol was started in patients (n=3) who have HVPG >10 mmHg and with varices. Mean HVPG was 6.00±2.51mmHg in the Atorvastatine group; Mean HPVG was 10.54±5.33 in Atorvastatine plus Carvedilol group; Mean HPVG was 20±5.65 in Carvedilol group. 14 patients had varices. Every patient was followed up closely for morbidity and mortality of liver parenchymal diseases. One patient with esophageal varices 4 mm in diameter and HVPG was 12 mm Hg, who took Atorvastatine plus Carvedilol died of Hepatic Encephalopathy.

***Conclusion:*** Measurement of HVPG is useful for predicting of increased risk of morbidity and mortality in patients with liver parenchymal diseases.

***Keywords:*** Portal hypertension, cirrhosis, hepatic venous gradient

---

***PP-604***

## *Biliary stents in locally advanced pancreatic cancer: Plastic versus metal*

**Irina-Gabriela Diaconu[1], Vasile Sandru[1], Oana Plotogea[1], Madalina Ilie[1], Ecaterina Rinja[1], Bogdan Ungureanu[2], Gheorghe Balan[3], Nikola Panic[4], Alexandru Constantinescu[1], Cristian Rosianu[5], Gabriel Constantinescu[1]**

*[1]Bucharest Clinical Emergency Hospital, Bucharest, Romania*
*[2]University of Medicine and Pharmacy Craiova, Craiova, Romania*
*[3]University of Medicine and Pharmacy Grigore T. Popa Iasi, Iasi, Romania*
*[4]University Clinic Dr. Dragisa Misovic-dedinje, Belgrade, Serbia*
*[5]Sfanta Maria Hospital, Bucharest, Romania*

***Background/Aims:*** Pancreatic adenocarcinoma is frequently localized in the head of the pancreas, therefore determining the obstruction of the common bile duct. Endoscopic retrograde cholangio-pancreatography (ERCP) with biliary stenting allows the palliative treatment of the obstructive jaundice in locally advanced pancreatic cancer (LAPC). The aim of this study is to assess the two different categories of biliary stents – plastic stents (PS) and self-expandable metal stents (SEMS) – in the palliative treatment of LAPC, taking into consideration for each patient the number of reinterventions after the first stenting, the number of cholangitis requiring endoscopic treatment and the mean duration between changing of the stents.

***Materials and Methods:*** We conducted a retrospective study which enrolled the patients with LAPC hospitalized in the Gastroenterology Department of the Clinical Emergency Hospital Bucharest, who underwent ERCP with biliary stenting from January 2016 to December 2018. The study included 345 patients diagnosed with LAPC, who needed biliary stenting in order to obtain resolution of the obstructive jaundice before chemotherapy or for cholangitis.

***Results:*** The mean age of the patients was 68 years (range 36 to 96) and there were slightly more men than women (188 (54%) vs 157 (46%)). According to the type of stent inserted, we divided the patients into 4 categories: plastic stents (PS), totally covered metal stents (TC-SEMS), partially covered metal stents (PC-SEMS) and uncovered metal stents (UC-SEMS). There were 251 patients with PS, 65 patients with PC-SEMS, 26 with UC-SEMS and 3 with TC-SEMS. In total, 254 reinterventions were performed, the number being significantly higher ($p<0.005$) in the PS group – half of them requiring more than two replacements – compared to the other groups representing the metal stents. From the total of 94 patients with SEMS, 15% needed a total of 24 reinterventions being mainly "maintenance" procedures. The maximum number of reinterventions belonged to the PS group and was 7 (in one patient). Cholangitis appeared in 14% of the patients, most of them in the PS group (maximum number of 6 episodes for one patient).

***Conclusion:*** Both plastic stents as well as metal stents are used for the treatment of the obstructive jaundice in patients with LAPC. However, we observed in our study a lower rate of reinterventions and occurrence of cholangitis when metallic stents were used, sparing the patient from unnecessary morbidity and significantly increasing the quality of life. Moreover, SEMS offer a longer window for oncology treatment and are more cost efficient even if the initial price is higher.

***Keywords:*** Locally advanced pancreatic cancer, plastic stents, metal stents

---

***PP-605***

## *Under hepatic pancreatic necrosis presenting as mimiking liver hydatid cyst*

**Elatiq Sara[1], Souadka Amine[1], Benjelloun El Bachir[2], Raouf Mohsine[1], Ait Taleb Khalid[2]**

*[1] National Institute of Oncology of Rabat, Rabat, Morocco*
*[2]University Hospital Hassan II, Fez, Morocco*

Pancreatic necrosis is the normal evolution of acute severe pancreatitis and may have several modes of revelation. Hydatid cyst of the liver is frequent in endemic countries as Morocco; Its diagnosis should always be evocated in order to avoid management complication. We report the case of a 55-years-old patient; living in a rural environment who presented with a febrile right upper quadrant pain. The anamnesis showed a history of contact with dogs. Biological findings revealed an increase lipase level that decreased in 48hours later with a negative hydatid serology. A CT scan discovered under hepatic collection with grade E pancreatitis. Protected ultrasound guided aspiration helped to reverse the hydatid cyst diagnosis and releaved the right quadrant pain. The diagnosis of complicated severe acute pancreatitis is not always obvious. Many steps should be respected: 1-lipase level at the pain beginning, 2-CT scan imaging 3-in case of hydatid cyst environment: hydatid serology and 4-Protected ultrasound guided aspiration as both diagnostic and therapeutic option. This strategy should be in a collegial discussion between gastroenterologists, surgeons, radiologists and anesthetist-intensive care doctors.

***Keywords:*** Hydatid cyst, pancreatic necrosis, hydatid serology, ultrasound guided aspiration

---

***PP-606***

## *Investigating the association between diet and gastroesophageal reflux disease (GERD): A systematic review and meta-analysis*

**Jorabar Singh Nirwan, Syed Shahzad Hasan, Barbara R. Conway, Muhammad Usman Ghori**

*University of Huddersfield, Huddersfield, UK*

***Background/Aims:*** Gastroesophageal reflux disease (GERD) can be a debilitating condition and multiple risk factors have been identified which may trigger or exacerbate GERD symptoms. One of these risk factors is the intake of certain food groups. However, a comprehensive review on the prevalence of GERD according to the intake of food groups is currently lacking in the literature. Therefore, the aim of this study was to conduct a systematic review and meta-analysis on the prevalence and risk of GERD stratified by dietary intake.

***Materials and Methods:*** This systematic review was performed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2009 guidelines (Figure 1). EMBASE, MEDLINE, Scopus, CINAHL, Cochrane library, and Google Scholar were systematically searched for studies on the prevalence of GERD where dietary habits of the subjects were also stated. Meta-analysis was conducted on food groups where ≥4 studies were available. Data were pooled using a random effects model (95% confidence interval) using MetaXL, and the OR's and RR's were calculated using MedCalc online calculators.

***Results:*** 16 studies were included in this review. However, a sufficient number of studies (≥4) were only available for carbonated drinks and coffee/tea; therefore, meta-analysis was conducted on these two groups. The results revealed an increased prevalence of GERD in subjects with a moderate/high intake of carbonated drinks compared with those with low/none intake (18.60% (95% CI 9.55%-29.68%) vs 14.54% (95% CI 6.49%-24.91%), respectively). The OR and RR displayed a higher risk in those with a moderate/high intake of carbonated drinks (1.29 (95% CI 1.14-1.46; P=0.0001) and 1.24 (95% CI 1.12-1.37; p<0.0001), respectively). Similarly, subjects with a moderate/high intake of coffee/tea also displayed a higher GERD prevalence (21.02% (95% CI 16.32%-26.13%)) than those with low/none intake (16.92% (95% CI 12.69%-21.61%)) and an OR and RR of 1.47 (95% CI 1.36-1.59) and 1.38 (95% CI 1.29-1.47), respectively (Table 2).

***Conclusion:*** This systematic review and meta-analysis has highlighted the association between diet and GERD; specifically, the increased prevalence and risk of GERD in individuals with a moderate/high intake of coffee/tea and carbonated drinks. It is anticipated that this review will assist public health advisors and health care providers to provide the necessary advice and guidance to GERD sufferers for the management of GERD symptoms.

***Keywords:*** GERD, diet, prevalence

***Table 1.*** Pooled prevalence of GERD according to dietary habits

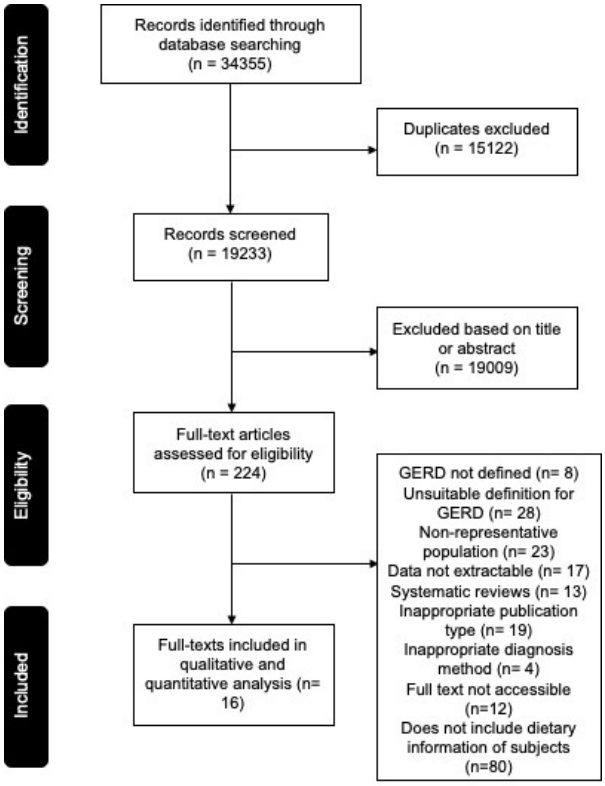
| | | | | GERD prevalence | | 95% CI | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BMI | No. of studies | No. of participants | n | % | LCI | HCI | $I^2$ | Cochrans Q | $Chi^2$, p | $Tau^2$ |
| Spicy food | | | | | | | | | | |
| Low/none | 3 | 3397 | 274 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Moderate/high | 3 | 2813 | 280 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Sweet food | | | | | | | | | | |
| Low/none | 2 | 459 | 136 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Moderate/high | 2 | 2177 | 613 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Meat/fish | | | | | | | | | | |
| Low/none | 3 | 3443 | 313 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Moderate/high | 3 | 2234 | 568 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Carbonated drinks | | | | | | | | | | |
| Low/none | 5 | 6837 | 944 | 14.54 | 6.49 | 24.91 | 99.01 | 403.33 | 0.010 | 0.082 |
| Moderate/high | 5 | 2644 | 452 | 18.60 | 9.55 | 29.68 | 97.51 | 160.71 | 0.010 | 0.081 |
| Fatty food | | | | | | | | | | |
| Low/none | 2 | 1355 | 118 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Moderate/high | 2 | 395 | 42 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Fried food | | | | | | | | | | |
| Low/none | 3 | 2799 | 204 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Moderate/high | 3 | 1984 | 378 | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| Coffee/tea | | | | | | | | | | |
| Low/none | 14 | 7104 | 1018 | 16.92 | 12.69 | 21.61 | 95.62 | 296.68 | 0.010 | 0.045 |
| Moderate/high | 14 | 17174 | 3387 | 21.02 | 16.32 | 26.13 | 98.28 | 756.60 | 0.010 | 0.050 |

N/C, not computable due to inadequate number of studies

***Table 2.*** Odds ratio and relative risk of dietary habits

| Diet | Compared to | Odds ratio | 95% CI | Significance level | Relative risk | 95% CI | Significance level |
|---|---|---|---|---|---|---|---|
| Spicy food | | | | | | | |
| Moderate/high | Low/none | 1.260 | 1.058-1.500 | p=0.0095 | 1.234 | 1.053-1.447 | p=0.0095 |
| Sweet food | | | | | | | |
| Moderate/high | Low/none | 0.931 | 0.746-1.161 | p=0.5253 | 0.950 | 0.813-1.111 | p=0.5225 |
| Meat/fish | | | | | | | |
| Moderate/high | Low/none | 3.409 | 2.934-3.962 | p< 0.0001 | 2.797 | 2.463-3.176 | p< 0.0001 |
| Carbonated drinks | | | | | | | |
| Moderate/high | Low/none | 1.287 | 1.139-1.455 | p=0.0001 | 1.238 | 1.117-1.372 | p< 0.0001 |
| Fatty food | | | | | | | |
| Moderate/high | Low/none | 1.247 | 0.860-1.808 | p=0.2437 | 1.221 | 0.874-1.705 | p=0.2411 |
| Fried food | | | | | | | |
| Moderate/high | Low/none | 2.994 | 2.498-3.589 | p<0.0001 | 2.614 | 2.227-3.069 | p<0.0001 |
| Coffee/tea | | | | | | | |
| Moderate/high | Low/none | 1.469 | 1.361-1.585 | p<0.0001 | 1.376 | 1.291-1.468 | p<0.0001 |



***PP-607***

## *Experience of use of faecal immunochemical test (FIT) in local group in patients with high-risk for colorectal cancer (CRC)*

**Ekaterina Melnikova, Tatiana Kryukova, Kirill Kryukov, Iuliia Reutova**

*Medical Center of Diagnostics and Prevention, Yaroslavi, Russian Federation*

***Background/Aims:*** Colorectal cancer (CRC) is the third most common cancer worldwide and is the second leading cause of death from cancer in the world. Incidence of a colorectal cancer steadily grows in recent years in Russia (in 2017 – 44,6 on 100 thousand population). In the Yaroslavl region in 2017 this index-65,7 on 100 thousand population, considerably exceeding average incidence across Russia that is bound to existence the carcinogenic production in the region. Today immunochemical FOBTs are the most reliable tests for detection of colorectal neoplasia. Aim-to study possibilities of use of FIT in local group (employees of the petrol plant) who have the high risk for CRC.

***Materials and Methods:*** For carrying out screening 885 workers have been invited (age more than 40 years), to everyone questioning for detection of risk factors of CRC is carried out, also rules for collecting FIT are explained. The test «Colon View» Hb and Hb/Hp») was done 3 times in 849 employees (95.9%). The rate of the Hb and Hb/Hp level below 40 mkg/L. The statistical analysis is made by MedCalc V12.6.1.0.

***Results:*** 237 (27.9%) persons were FIT-positive. Median age of FIT-positive patients was 53.2±0.5 years, from them at the age of 40-49 years: 88 (37.1%), 50-59 years: 115 (48.5%) and for aged >60 years: 34 (14.3%). Median level Hb in all tests (94.5) was higher than level of Hb/Hp (62.1) ($p<0.05$). Median level Hb in all tests was higher in employees at the age of 50-59 years (119.1) than in the groups of 40-49 years: (78.2) and age more than 60 years: (57.4) ($p<0.05$). All FIT-positive patients were referred to colonoscopy that was performed in 107 (45.1%) individuals. Hyperplastic polips were identified in 28 (26.2%) individuals, adenoma — in 34 (31.8%), diverticulosis in 10 (9.3%), hemorrhoid— in 12 (11.2%), colorectal cancer in 4 (3.7%) individual and in 19 (17.8%) individuals the colon pathology is absent. For adenoma and hyperplastic polips detection-sensitivity (Se) for determining Hb was 84,6%, specificity (Sp) – 59.2%, AUC 0.72 (CI 0.59-0.81), for determining Hb/Hp – Se – 46.7%, Sp – 97.2%, AUC 0.59 (CI 0.46-0.69).

***Conclusion:*** High prevalence of FIT-positive patients detected at the local refinery is likely to be associated with the high risk of developing CRC in this particular category of people that are due to undergo colonoscopy as the next stage of investigation, especially in the age group of 50-59, in which Hb levels were the highest. The carried-out colonoscopy taped high percent of precancerous pathology of colon. Two-stage screening of CRC allows to reduce the number of unreasonably conducted colonoscopies.

***Keywords:*** Colorectal cancer, screening, FIT

---

***PP-608***

## *Gastroduodenal Crohn's disease: Report of 4 cases*

**Gülşah Balcı, Hülya Çetinkaya**

*Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*

Crohn's disease can affect all the gastrointestinal tract, but up to 4 percent of patiens with Crohn disease have gastroduodenal involvement. Gastroduodenal Crohn's disease has distinct clinical, therapeutic and prognostic features. We followed up 4 patients with upper gastrointestinal involvement.

***Keywords:*** Chrons disease, upper gastrointestinal tract, gastroduodenal involvement

***PP-609***

## *ERCP in the elderly*

**Ala Ouni, Moufida Mahmoudi, Lamine Hamzaoui, Mohamed Mousadek Azzouz**

*Department of Gastroenterology, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia*

***Background/Aims:*** The success of endoscopic retrograde cholangiopancreatography (ERCP) and post-ERCP morbidity are related to center activity level. We report here the characteristics of the procedure in old patients; defined as age over 65 years as WHO.

***Materials and Methods:*** We have performed a retrospective study including all patients aged over 65 years who had ERCP in the gastroenterology department of the Mohamed Taheur Maamouri University Hospital between 1 January 2010 and 31 December 2018.

***Results:*** Three hundred ninety eight patients were enrolled with an average age of 77 years (65-98) and a sex ratio W/M=1,7. The indications of ERCP were dominated by the residual stones in 57.1% of cases, sequential treatment for gallbladder stones associated with common bile duct (CBD) stones in 14.8%, ampullary region carcinomas in 14% and severe acute cholangitis in 9.3%. A cholelithiasis has been found in 55.1% of cases with an average number of 4.4 and a mean size of 6,6 mm. More than 5 stones in the CBD were found in 9.6% of patients. A plastic biliary prosthesis was used in 59 patients (14.8%), for the lack of gallstones extraction or for the drainage of tumoral CBD stenosis. 48,8% of the patients had a wide sphincterotomy, and catheterization of the main pancreatic duct was seen in 173 patients (43.5%) of whom 90.2% had a single passage. A procedure failure was noted in 47 patients (11.8%) because of a catheterization failure of the CBD in 68.1% of patients, an intra-diverticular papilla in 10.6% of cases and unidentified papilla in 4 patients (8.5%). Per and post act complications were observed in 7.1% of cases with 14 pancreatitis (3.5%), 9 bleeding (2.3%), 2 duodenal perforations and 3 various infections (0.8%). We have deplored 5 deaths.

***Conclusion:*** In our center, ERCP in the elderly was indicated mainly for cholelithiasis diseases. It was safe, effective and successful in about 90% of patients. The procedure-specific morbidity was less than 10%, despite the increasing severity of the conditions being treated.

***Keywords:*** ERCP, elderly

---

***PP-610***

## *Relationship between hepatic venous pressure gradient with esophagial varices, liver stiffness*

**Zeynep Ellik[1], Seray AkÇalar[2], Emrecan Çelebioğlu[2], Özgün Ömer Asiller[1], Evren Üstüner[2], Sadık Bilgiç[2], Necati Örmeci[1]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Radiology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Portal hypertension (PHT) is a major outcome of any chronic liver disease and it is the main cause of complications in patients with cirrhosis. Measurement of hepatic vein pressure gradient is gold standard for PHT assessment, together with its diagnosis and prognosis relevance. The aim of this study discuss the assessment of HVPG and detection of high-risk esophageal varices in patients with liver cirrhosis.

***Materials and Methods:*** 24 liver cirrhosis with characterized hepatic venous pressure gradient (HVPG) were included in the study. Demographic data, medical history, Child-Turcotte-Pugh and Model of End Stage liver disease score, clinical chemistry,

liver stiffness values spleen vein diameter, spleen long size, portal vein diameter and velocity, were recorded on the day of the procedure prior HVPG measurement. The degree of portal hypertension was determined by the invasive HVPG measurement. Our cut-off for high HVPG was ≥5 mm Hg.

***Results:*** Age was 60.21±10.52, gender distribution was (12 women; 12men). 15 patients had eosphagial varices and mean diameters of the varices were 5.66±2.02 (max:10-min:3). The mean HVPG was higher in patients with varices (9.73±6.16 mmHg). Child-Pugh Score was 5.79±1.02. (Score 5 53.3%, Score 6 13.3%, Score 7 20%, Score 8 13.3%). The parameters in high HVPG patients were: Liver Stifness: 24.47±13.90 kPa.; portal vein diamater 11.61±2.71 mm; splenic vein diameter 8.41±2.98 mm; Spleen Long 133.88±30.44 mm; platelet count 127.33±74.49 $10^9$. HVPG in non-complicated patient was 8.47±5.11 and in complication history 12.85±9.94 (p=0.30). Liver stiffness in non-complicated history 22.73±15.49 and in complication history 23.57±3.42 (p=0.093). There is no correlation between fibro scan, spleen long, portal vein diameter, splenic vein diameter and HVPG (p=0.10, p=0.22, p=0.61, p=0.23)

***Conclusion:*** The mean HVPG was higher in complicated cirrhotic and presenting esophageal varices patients. We can improve symptoms with reducing the HVPG.

***Keywords:*** Portal hypertension, esophageal varices, cirrhosis, hepatic venous pressure gradient

---

***PP-611***

## *Acute toxic hepatitis due to striagliptine in a patient with non-alcoholic steatohepatitis (NASH)*

**Şafak Kızıltaş[1], Hale Kırımlıoğlu[2], Nurdan Tozun[1]**

*[1]Departement of Gastroenterology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*
*[2]Department of Pathology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*

***Introduction:*** Nonalcoholic fatty liver (NAFLD) is often associated with comorbidities such as obesity, diabetes mellitus and dyslipidemia. Histologically it is divided into two groups: Nonalcoholic fatty liver (NAFL) and Nonalcoholic steatohepatitis (NASH). While both have macrovesicular liver fattening of 5% or more, only NASH has liver damage (inflammation, hepatocyte damage, balloon degeneration, and fibrosis). NASH may progress to liver cirrhosis and hepatocellular carcinoma and require liver transplantation. It is the most common cause of the cryptogenic cirrhosis. We planned this presentation to share the interesting situation of a female patient with obesity and type 2 DM who admitted to the emergency department with a high level of transaminase at the level of acute hepatitis.

***Case:*** A 32-year-old female patient admitted to the emergency department with complaints of fatigue, nausea and fever. AST: 1363, ALT: 1900, ALP: 172, GGT: 452, T.bilirubin: 3.23, D.bilirubin: 2.78, CRP: 6.46, Hemogram was normal. The patient was hospitalized due to a fever of 38 °C. Viral markers (including HCV RNA, CMV, EBV, HEV) were all completely negative. Auto-immune antibodies were negative, ESR was minimally high, and there was no increase in globulin. Ceruloplasmin was normal and the level of ferritin was minimally elevated. ACE was normal and Brucella tests were negative. Cholesterol was normal and the triglyceride level was slightly elevated. Upper abdominal US examination revealed Stage 3 steatosis and hepatomegaly. There was no lymphadenopathy on thorax and the abdominal CT. Liver needle aspiration biopsy was performed. Histologically, zone 2 and 3 showed 70% macrosteatosis, portal fibrosis enlargement, perisinusoidal fibrosis, portal and lobular infiltration, and infrequent balloon degeneration. These findings indicated that steatohepatitis and toxic hepatitis may be present. It was learned that Metformin, which the patient was using, had been discontinued for the last 15 days and striagliptin was started instead. The patients medication was discontinued. In the clinical follow-up, the patient's transaminase levels completely returned to normal and she started to use metformin again. It has been followed up for 1 year and transaminases are observed to be normal.

***Conclusion:*** We aimed to share a case of toxic hepatitis due to striagliptine use in NASH because it is a rare condition in the literature.

***Keywords:*** NASH, striagliptin, toxic hepatitis

***PP-612***

## *Long-term follow-up results of our cirrhotic patients*

**Kadir Gisi[1], Murat İspiroğlu[1], Bülent Kantarçeken[1], Serhan Erayman[2]**

*[1]Department of Gastroenterology, Sütçü İmam University School of Medicine, Kahramanmaraş, Turkey*
*[2]Department of Internal Medicine, Sütçü İmam University School of Medicine, Kahramanmaraş, Turkey*

***Background/Aims:*** Chronic liver disease, which occurs for many reasons, is called nodules of the normal liver structure, together with diffuse liver fibrosis, and liver cirrhosis. Patients with cirrhosis have hepatocellular cancer (HCC) risk varying with etiology. Especially as the age of cirrhosis progresses, HCC development and mortality increases. In our study, we evaluated HCC development and increased cirrhosis age with increased HCC development and increased mortality in follow-up cirrhotic patients.

***Materials and Methods:*** A total of 469 patients with cirrhosis followed in the gastroenterology clinic of our hospital during the last five years were evaluated retrospectively. Demographic characteristics such as age and sex were recorded. The etiology, follow-up periods, causes of mortality and hepatocellular cancer development data of the patients were recorded by scanning the past records.

***Results:*** The mean age of the patients was 59 years. 232 (49%) of the patients were male and 236 (51%) were female. The etiologic classification of the patients was hepatitis B in 101 (21.5%) patients, hepatitis C in 59 (12.6%) patients, steatohepatitis in 58 (12.3%) patients, autoimmune hepatitis in 13 (2.7%) patients, 170 (36%) 2) cryptogenic cirrhosis in the patient, portal vein thrombosis and portal hypertension in 34 (7.2%), alcohol in 10 (2.1%), primary biliary cholangitis in 11 (2.3%), 6 (1.3%) cirrhosis in 3 patients (0.6%), congenital hepatic fibrosis in 1 patient, drug induced in 1 patient, liver hydatid cyst in 1 patient and graft versus host disease in 1 patient. The mean follow-up period was 6 years. The longest follow-up with cirrhosis was 14 years. During the five-year follow-up period, 13 (2.7%) patients developed hepatocellular cancer (HCC), of which 6 were female and 7 were male, with a mean age of 60 years. The mean follow-up period was 6 years. 123 patients (26%) developed exitus within 5 years of follow-up. A total of 14 (3%) patients underwent liver transplantation within five years.

***Conclusion:*** This study showed that patients have an increased risk of developing HCC, especially after 6 years of cirrhosis during long-term follow-up. Approximately 25% of patients who do not have liver transplantation 5 years after the development of cirrhosis are lost due to various reasons. Therefore, it seems important to decrease mortality in the first five years after diagnosis. Therefore, a larger population and longer follow-up study is needed to support this finding.

***Keywords:*** Cirrhosis, hepatocellular cancer, mortality

---

***PP-613***

## *Two cases of ischaemic colitis caused by cardiac arrest and cocaine*

**Faisal Nawaz, Monzur Ahmed**

*Good Hope Hospital, Rectory Road, Sutton Coldfield, Birmingham, UK*

Ischemic colitis is the most common form of ischaemic injury to the gastrointestinal tract caused by sudden, often transient compromise in blood flow and its aetiology is multifactorial. We report two cases of Ischemic Colitis with two differing aetiologies. Case 1: A 56 years male with hypertension, Type 2 diabetes, chronic kidney disease, atrial fibrillation and multiple pulmonary embolisms, renal transplant, Endovascular Aortic Repair (EVAR) for Aortic dissection, followed by embolization of endoleak was admitted with acute myocardial infarction complicated by VF arrest. He was successfully

resuscitated with DC shock and a coronary angiogram showed occlusion of first diagonal artery (No intervention). Five days later he developed fresh rectal bleeding, with a significant drop in Hb to 88 g/l (130-180), Two units of blood were transfused. Gastroscopy was normal and CT Angiography showed bleeding from caecum. Colonoscopy showed numerous ulcers in proximal ascending colon and cecum. Case 2: A 26 years athletic male, presented with one day history of sudden abdominal pain during football practice followed by fresh rectal bleeding and loose bowels. He was a regular cocaine and cannabis abuser. There was no family history of inflammatory bowel disease. Initial investigations: Haemoglobin 145g/l (130-180), WBC 20 (4-11), CRP 2, Albumin 36 (35-50), Stool culture: negative, abdominal X-ray: Unremarkable, CT scan abdomen/pelvis: oedema of distal descending colon. Flexible sigmoidoscopy showed 15cm continuous inflammation with ulceration in distal descending colon. Histology of both case biopsies showed inflammation suggestive of ischemia. Both cases were managed conservatively with subsequent improvement in their clinical symptoms and later on discharged without complications. Ischemic colitis is not rare but easily overlooked with a high mortality. Hence, a high index of suspicion with appropriate investigation is needed when evaluating the cause for lower G.I bleed.

***Keywords:*** Ischemic colitis-lower G.I bleeding

---

***PP-615***

## *Seroconversion of Hepatitis C during dialysis in major cities of PAKISTAN*

**Talal Khurhid Bhatti, Muhammad Umar, Mashood Ali**

*Pakistan Institute of Medical Sciences, Islamabad, Pakistan*

***Background/Aims:*** Hepatitis C is highly prevalent in Pakistan. Several studies worldwide have shown that patients undergoing hemodialysis are at a risk for developing Hepatitis C. So this study was carried out to determine the proportion of patients undergoing hemodialysis who seroconverted from HCV negative to HCV positive status in our hospitals.

***Materials and Methods:*** This descriptive cross-sectional study was conducted at four tertiary care hospitals of Punjab from January 2016 to March 2016 on patients undergoing hemodialysis currently. With the help of WHO Sample Size Calculator, at confidence level 95%, absolute precision 5% and anticipated population proportion 14%, the minimally required sample size was calculated to be 186 patients but we included 190 patients in our study. Sampling technique was stratified random sampling based on hospital and gender. Our inclusion criterion was all those patients who were Hepatitis C negative (determined by HCV serology, based on the principle of immunochromatography) at the initiation of dialysis and remained negative for the subsequent six months after the initiation of hemodialysis. Our exclusion criteria was all those patients who seroconverted to HCV positive with six months of initiation of hemodialysis (the period corresponding to the incubation period of hepatitis C virus.) and those who were dialyzed on emergency basis. The patients' records were thoroughly checked and information regarding their HCV status at initiation of dialysis and HCV status in later serology tests was recorded. Patients who were HCV negative at baseline but later confirmed to be HCV positive, based on HCV serology were considered seroconverted. All the data was entered and analyzed in Statistical Package of Social Sciences, SPSS (version 22). For All the categorical variables like gender of patient, renal diagnosis, HCV status positive or negative, etc. frequencies along with percentages were calculated. For continuous variables like age of patient, duration since initiation of dialysis (in months) and duration since seroconverted (in months), mode, mean along with standard deviation were calculated

***Results:*** Out of 190 patients who were HCV negative at the initiation of dialysis, 93 (i.e. 48.9%) patients converted to HCV positive status whereas 97 (i.e. 51.05%) patients remained HCV negative throughout the study. The mean time taken for seroconversion was 18.04 months (SD±15.43) months). The median was 12 months, with an inter quartile range of 14 months.

***Conclusion:*** The proportion of HCV seroconversion in our hemodialysis units is very high.

***Keywords:*** HCV, seroconversion, hemodialysis, ESRD, chronic kidney failure, immunochromatography, serology

***PP-616***

## *Acute enteric eosinophilic myenteric ganglionitis: Difficult and rare case of lung adenocarcinoma*

**Şafak Kızıltaş, Can Gönen, Arzu Tiftikçi, Nurdan Tozun**

*Department of Pathology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*

***Introduction:*** Chronic intestinal pseudo obstruction (CIPO) is a rare disorder caused by abnormalities in the underlying neuropathic, myopathic or interstitial Cajal cells. These abnormalities may be idiopathic or secondary to another disease. Neurological, paraneoplastic, autoimmune, metabolic/endocrine and infectious diseases play a role in the etiology in approximately 50% of the cases. CIPO is realized, most commonly due to small cell lung cancers, carcinoid tumors and paraneoplastic syndrome reported in malignant thymoma. In these patients, serological panel of paraneoplastic syndrome is often positive. Paraneoplastic CIPO usually affects gastrointestinal motility and occurs with signs and symptoms mimicking mechanical bowel obstruction. Most of these patients do not respond to medical treatment and the non-functional bowel segment needs to be resected surgically.

***Case***: A 63-year-old male patient with complaints of a loss of appetite, weight loss, slowness in the passage of stool and gases, inability to defecate for the last 10 days, abdominal pain and bloating was admitted to the hospital. He was hospitalized for diagnosis, monitoring and treatment. Radiographic air-fluid levels on the abdominal X-ray, diffuse small bowel dilatations on abdominal CT, and diffuse fecal retention, especially on the right colon, were present. Supportive treatment and antibiotherapy were started. Surgical resection was performed as the general condition began to deteriorate and terminal ileectomy was performed with subtotal colectomy. As a result of the examination of the surgical specimen of the patient; eosinophilic myenteric ganglionitis (predominant cells in mixed inflammatory cell infiltration) was detected. All possible causes were investigated. The patient was checked for paraneoplastic syndromes, infectious causes, endocrine and metabolic causes, malignancies, autoimmune causes by serological and biochemical investigations using all imaging modalities. All relevant disciplines were consulted. Only on the patient with ASMA 1/640 titer (+) steroid treatment was started because the cause could be autoimmune and was described in the literature. The patients steroid treatment was reduced and discontinued upon continued complaints. The patient was reevaluated and the patient's thoracic CT scans, which were normal before, developed multiple pathological lymphadenopathies in the mediastinum after the third month. The patient was diagnosed with lung adenocarcinoma on histological examination of the biopsy taken from the lymph nodes and is currently receiving chemotherapy and radiotherapy.

***Conclusion:*** Paraneoplastic syndromes are predominantly the precursors of cancer. CIPO is one of these paraneoplastic syndromes. To the best of our knowledge, we have not encountered CIPO as a paraneoplastic syndrome due to pulmonary adenocarcinoma in the literature. In the literature, it is reported that much smaller cell lung cancer plays a role in the etiology. Therefore, we aimed to share this rare and difficult phenomenon.

***Keywords:*** Chronic intestinal pseudo obstruction, lung adenocarcinoma, eosinophilic myenteric ganglionitis

---

***PP-617***

## *Alcohol consumption in patients with colorectal cancer in ALBANIA*

**Marsela Sina, Adea Kocollari, Skerdi Prifti**

*University Clinic of Gastrohepatology, University Hospital Center Mother Teresa, Tirana, Albania*

***Background/Aims:*** Colorectal cancer (CRC) is the fourth cause of cancer-related death worldwide. The aim of our study was to evaluate alcohol intake in Albanian patients with colorectal cancer.

***Materials and Methods:*** This was a prospective, case-control study, conducted at the University Clinic of Gastrohepatology, University Hospital Center Mother Teresa in Tirana, Albania from January 2011-September 2016. A detailed questionnaire about alcohol habits was filled for every individual included in the study. Multivariable analysis was used to determine associations between patient characteristics and different characteristics of alcohol intake. Statistical analysis was made with Chi-square (p-value, significance level: 0.05).

***Results:*** 262 patients with CRC (56.2% M: 43.8% F), and 400 healthy individuals (56.1% M: 43.9% F) were enrolled in this study. The mean age at diagnosis was 62.7±10.1 for CRC group and 51.2±15.8 years for controls. Alcohol drinkers were encountered more frequently in CRC patients compared to controls (54.6% *vs* 43.5%, p=0.005). The prevalence of heavy drinkers was higher in CRC than in controls (30.1% *vs* 15.5%, p=0.005). On regard of quantity of alcohol intake, in CRC group we found a higher number of drinks per day than in controls (0.75±0.941 *vs* 0.63±1.047, p=0.005). This difference persists when we compared males of both groups (1.20±1.004 *vs* 1.01±1.240, p=0.002), and disappeared when we compared females (0.18±0.388 *vs* 0.18±0.476, p=0.679).

***Conclusion:*** We found the rate of alcohol drinking more frequent in our CRC patients than in general population. The quantity of alcohol intake per day seems to play an important role in CRC development, particularly in male patients.

***Keywords:*** Colorectal cancer, alcohol, Albanian patients

---

***PP-618***

## *EUS colonoscopy identification of the ruptured diverticulum in recurrent diverticular disease*

**Sergey Skridlevskiy, Viktor Veselov**

*State Scientific Center of Coloproctology, Moscow, Russian Federation*

***Background/Aims:*** Patients with recurrent diverticular disease of the colon are candidates for surgery due to multiple attacks of diverticulitis in the course of one or more years, a narrowed colon, colonic bleeding, and fistula to adjacent tissue or organs. Furthermore, patients who have a ruptured diverticulum and risk of the infection spread into the abdomen needs for surgery. The diagnostic colonoscopy data on the rupture of the diverticulum is based on indirect signs of endoscopic imaging. In this connection, a study was conducted aimed at the direct detection of a diverticulum rupture using EUS colonoscopy.

***Materials and Methods:*** EUS colonoscopy data of patients with a recurrent course of the diverticular disease of the colon after a course of therapy and completion of the attack of diverticulitis and then operated on was collected prospectively in our Endoscopic Department from 2000. Comparative analysis of histological and EUS colonoscopy data was performed.

***Results:*** An analysis of 21 cases with ultrasound signs of a ruptured diverticulum was performed. Colonoscopy EUS revealed 2 types of damage to the diverticulum: type 1 (9-42.86% of cases)-local interruption of the muscle layer with a small (1.0-2.0 cm) hypoechoic cavity adjacent to this zone, type 2 (12 – 57.14% of cases)-violation of the integrity of all layers of the colon wall with the presence of infiltrates of various ultrasonic characteristics adjacent to this zone. In all cases, with type 2 ultrasound changes, patients were operated on. Furthermore, verification of the diverticulum rupture with the formation of a small cavity against the background of the allowed attack of the diverticulitis indicated the need for surgical treatment. The data of type 1 histological examination revealed a rupture of the diverticulum with inflammation in the adjacent area in all 100% of cases. In type 2, a destroyed diverticulum with infiltrates was histologically determined.

***Conclusion:*** EUS colonoscopy makes it possible to detect a rupture of the diverticulum in the phase of an unformed infiltrate and, accordingly, determine the need for surgical treatment of this group of patients.

***Keywords:*** Colonoscopy with EUS, ruptured diverticulum of the colon, chronic recurrent diverticular disease

---

***PP-619***

## *A case of primary duodenal follicular lymphoma*

*Şafak Kızıltaş, Can Gönen, Eser Kutsal, Nurdan Tozun*

*Department of Gastroenterology, Acıbadem Mehmet Ali Aydınlar University School of Medicine, İstanbul, Turkey*

***Introduction:*** Follicular lymphomas, although they are common in lymph nodes, are rarely seen in GI tract. According to the WHO 2016 classification, primary duodenal follicular lymphoma is a rare and benign type of lymphoma which has low histological grade, good prognosis and tends to remain regional. It is found incidentally in most patients. They are reported to have a different structure to the other GI follicular lymphomas. Untreated follow-up is the first choice in patients with localized cases. Life expectancy is excellent.

***Case:*** A 32-year-old male patient was admitted to the gastroenterology outpatient clinic with complaints of epigastric pain, flatulence and bloating. His history and family history were unremarkable. The patient who clarified to us that, one year earlier, he had an upper GI endoscopy which showed duodenal ulcer and had PPI treatment, had no pathological findings found in the upper abdominal US. His blood and biochemical parameters were normal. Upper GI endoscopy was performed. In the duodenum, bright-looking diminutive polyps were observed, and polyps were removed by biopsy forceps. Pathological examination revealed BCL2 (+), BCL 6 (+), CD 20 (+), compatible with Stage 1 primary duodenal follicular lymphoma. Other radiological imaging findings showed that the disease was regional. Clinical follow-up was performed by the hematologist.

***Conclusion:*** Primary duodenal folicular lymphoma is often asymptomatic and incidentally diagnosed. Our case was also captured this way. Transformation to diffuse large cell B lymphoma is rare. Death due to this disease is rare. The course of the disease is very good, even in patients without treatment. In gastroenterology practice, exclusion and pathological examination of the incidentally detected lesions in the duodenum is the only method for diagnosing this disease. For stage 1, clinical monitoring is the recommended form of management. We aimed to share our case because it is a rarely encountered example.

***Keywords:*** Follicular lymphoma, duodenum, primary duodenal

---

***PP-620***

## *The place of surgery in the treatment of Crohns disease*

**Elatiq Sara[1], Mazine Khalid[2], Souadka Amine[1], Benjelloun Elbachir[2], Raouf Mohsine[1]**

*[1]National Institute of Oncology of Rabat, Rabat, Morocco*
*[2]University Hospital Hassan II, Fez, Morocco*

***Background/Aims:*** Crohns disease is a chronic transmural inflammatory disease that can affect the entire digestive tract; it has an unknown evolution and multifactorial etiologies. Surgical treatment is indicated if complications: abscess, stenosis, digestive fistulas; and in case of resistance to medical treatment. The aim of this work is to report the different aspects of this disease and to specify the indications and the choice of the surgical treatment.

***Materials and Methods:*** It is a retrospective study of a series of 64 patients operated on for Crohns disease at the departments of digestif surgery in the university hospital HASSAN II in Fes over a 6-year period from June 2013 to June 2019.

***Results:*** The mean age of the patients was 36 years (17-85 years). There is a male predominance with a sex ratio H/F of 1.1. Main symptom is pain (80%), AEG and transit disorders noted in 50% of cases, anoperineal manifestations in 30% of cases and digestive fistulas in 23.4% of cases. Computed tomography, colonoscopy and pathology are key diagnostic exams. The anoperineal localization is most often found in 29.6% of patients followed by ileocecal localization in 25% of patients. In our series, 44.4% of the patients had an emergency operation (23%: peritonitis by small bowel perforation, 26.9%: appendicitis and 11%: occlusive syndrome). The main surgical indications are digestive fistulas in 23.8% of cases and stenosis in 14.2% of cases. Morbidity was 15.8%, including 6 cases (9.5%) of surgical wound infection and 4 cases (6.3%) of directed fistulas. The mortality was in two cases (3.1%) one case by pulmonary embolism and the other case by septic shock.

***Conclusion:*** The Surgical treatment is proposed for Crohns disease when complications. The postoperative results are marked by the occurrence of recurrences requiring iterative re-interventions and correct management of the disease by a specialized team.

***Keywords:*** Crohn, complications, surgical treatment

***PP-621***

## *Pharmacological dosage of anti-TNF in IBD: When and what to do?*

**Oussama Kharmach, Mohamed Borahma, Nawal Lagdali, Camélia Berhili, Imane Benelbarhdadi, Fatima Zohra Ajana**

*Department of Gastroenterology C, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** The pharmacological dosage of anti-TNF has shown efficacy in inflammatory bowel disease (IBD) through the introduction of therapeutic algorithms based on pharmacokinetics and immunogenicity. The aim of this work is to identify the practical value of these dosages in the management of IBD.

***Materials and Methods:*** This was a retrospective study over 3 years collecting patients followed for IBD treated with biotherapy. The blood samples taken just before the treatment of the anti-TNF are measured by ELISA method. Definition of clinical response: CDAI score <150 for Crohns disease (CD) and MAYO score <2 for ulcerative colitis (UC).

***Results:*** Among 840 patients followed for CD, 118 are treated with biotherapy, 67 have benefited from a pharmacological dosage. The location (the Montreal classification) of the disease was : 22% ileal (L1), 36% colonic (L2), 39% ileocolonic (L3), 16% isolated upper disease. The phenotype was : 39% luminal (B1), 40% stricturing (B2), 46% penetrating (B3), 52% perineal disease (P). The results showed: a low residual rate of drug with presence of antidrug antibodies in 51% of patients and their absence in 18%; a therapeutic residual rate of drug with presence of antidrug antibodies in 3% of patients and their absence in 28%. Which led us to keep the same therapeutic protocol in 28% of patients, switch to another anti-TNF in 24%, optimise treatment in 18%, stop the treatment in 16%, dose de-escalation in 6%, add an immunosuppressant in 4% and use surgery in 3%. Among 498 patients followed for UC, 11 are treated with biotherapy of which 6 (3 extensive UC (E3) and 3 left sided UC (E2)) have benefited from a dosage showing a low residual rate of drug in 4 patients and therapeutic in 2, without antidrug antibodies, which leads us to keep the same therapeutic protocol in the 2 patients with therapeutic residual rate, with good evolution in 1 patient and loss of secondary response with the other one. For the 4 patients with low residual rate, we kept the same therapeutic protocol in 03 patients with good evolution for 2 and recourse to surgery in 1 patient, we chose optimization in the 4th patient who developed a secondary loss of response requiring a switch.

***Conclusion:*** The pharmacological dosage has allowed us to avoid unnecessary prescriptions of anti-TNF and to make significant economic health savings.

***Keywords:*** IBD-anti-TNF-pharmacological dosage

| Indication of pharmacological dosage | primary non response | secondary loss of response | therapeutic de-escalation | Resumption of treatme after cessation |
|---|---|---|---|---|
| CD | 4% | 56% | 24% | 16% |
| UC | 0% | 33% | 17% | 50% |

| | Crohn's Disease | | ulcerative colitis | |
|---|---|---|---|---|
| | Presence of ab | Absence of ab | Presence of ab | Absence of ab |
| low residual rate | 34 patients | 12 patients | 0 | 04 patients |
| therapeutic residual rate | 02 patients | 19 patients | 0 | 02 patients |

***PP-622***

## *Endoscopic ultrasonography-guided fine needle aspiration (EUS-FNA) in cytopathological diagnosis of subepithelial lesions of esophagus*

**Mesut Gümüşsoy[1], Koray Ceyhan[2], Serkan Duman[1], Lubna Kamani[1], Aysun Çalışkan[1], Mübin Özercan[1], Ramazan Erdem Er[1], Zeynep Ellik[1], Mehmet Bektaş[1]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Cytology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Subepithelial lesions of the gastrointestinal tract occur at a rate of 1/300 during endoscopy. Endoscopic ultrasonography-guided fine needle aspiration (EUS-FNA) is a reliable minimally invasive method in the differential diagnosis of subepithelial lesions. The goal of this study was to investigate the EUS-FNA results according to the size and origin of the esophageal-derived subepithelial lesions (SEL) detected during upper GIS endoscopy.

***Materials and Methods:*** The data of the patients who had esophageal SML detected between January 2010 and February 2018 in EUS Laboratory of Gastroenterology Department of Ankara University Faculty of Medicine were evaluated retrospectively.

***Results:*** EUS procedure was performed in 200 patients due to the esophageal subepithelial lesion. 50 of them (24 males, 26 females, mean age: 49.96 (min: 20 max: 70)) received EUS-FNA. The mean lesion size was 29.02 mm (11-115 mm), The originating layer was 72% (36) muscularis propria (4th layer origin) and 28% (14) muscularis mucosa (2nd layer origin). 4% of the SELs were located in the proximal esophagus, 42% were in the middle esophagus and 54% were in the distal esophagus. 72% (36/50) of the biopsy specimens obtained with EUS-FNA showed sufficiency for diagnostic accuracy. Cytopathology revealed mesenchymal cell tumors in 34 patients, bronchogenic cyst in 1 patient and abscess in 1 patient. The diagnosis rate was 76.9% (10/13) in lesions <2cm, 78.2% (18/23) in lesions between 2-3 cm and 64.2% (27/36) in 3-4 cm lesions. EUS FNA positivity was 75% (27/36) in muscularis propria origin and 71.4% (10/14) in muscularis mucosal origin.

***Conclusion:*** Approximately 75 percent of the subepithelial lesions of the esophagus can be diagnosed by EUS-guided aspiration biopsy. The size of the lesion and the layer from which it originated had no effect on the EUS-FNA result.

***Keywords:*** Esophagus, EUS-FNA, SEL

---

***PP-623***

## *Consenting for endoscopic procedures – How can we optimise the process?*

**Lara S. Carvalho, Rajan N Patel, Ann Cross, Kalpesh Besherdas**

*Royal Free London NHS Trust, London, UK*

***Background/Aims:*** The British Society of Gastroenterology (BSG) consent guidelines advise that good consenting practice is an important part of the Global Rating Scale (GRS) assessment of UK endoscopic units. The high volume of outpatients undergoing elective endoscopic procedures can lead to insufficient consent documentation. We aimed to review our consent process and identify factors where it could be optimised.

***Materials and Methods:*** We performed a one-week prospective study at a London-based district general hospital during May 2019. Data was collected for 70 consecutive patients that underwent elective endoscopy: Gastroscopy (n=20), Colonoscopy (n=20), Gastroscopy + Colonoscopy (n=20) and Flexible sigmoidoscopy (n=10). In our Trust, consent forms for gastroscopy and colonoscopy are pre-printed whilst those for a combined gastroscopy + colonoscopy procedure and flexible sigmoidoscopy are manually completed. We compared the completion of consent forms for each procedure and the source of information provided to the patients prior to it (outpatient discussion, telephone call or written information).

***Results:*** Of the 70 patients undergoing endoscopy, 66 (94.3%) felt they received adequate information prior to the procedure either from a written source or telephone call. Sedation risk was documented in 85% receiving conscious sedation.

***Conclusion:*** Despite inadequate consenting for missed pathology and risks of sedation in 1 in 5 patients, almost all patients felt they received adequate information for their procedures. Manually filled consent forms were not completed to the standards of pre-filled consent forms. Nurse endoscopists were significantly more likely to write legibly and consent for missed pathology than consultant gastroenterologists. We advise that pre-filled consent forms be introduced for all commonly performed endoscopic procedures and that written consent for 'missed pathology' is included in all cases.

***Keywords:*** Consent, endoscopy, guidelines

***Table 1.*** Consent process – consultant vs. nurse endoscopist

| | Consultant (n=49) | Nurse endoscopist (n=21) | *p |
|---|---|---|---|
| Legibility (n,%) | 33 (67.3) | 21 (100) | p<0.02 |
| Missed pathology (n,%) | 5 (10.2) | 21 (100) | p<0.05 |

***PP-624***

## *Polyp detection rate and characteristics: 1 year experience in a gastroenterology unit*

**Meriem Bakkar, Meryem Belghiti Alaoui, Laila Amrani**

*Gastroenterology Unit, Digestive Surgical Oncology Department National Oncology Institute, Rabat, Morocco*

***Background/Aims:*** Colorectal cancer is one of the most common tumors and its prevention depends on the detection of polyps. Colonoscopy is the gold standard for diagnostic examination of the colon. Polyp detection rate is one of quality indicators for screening colonoscopy. The aim of this study is to describe the polyp detection rate in all colonoscopies indications and to compare polyps distribution in the colon.

***Materials and Methods:*** We performed a retrospective review of all the colonoscopies performed in our unit from April 2018 to March 2019. Data of patients was collected from the colonoscopies reports. We evaluated colonoscopy indications, bowel preparation, cecum intubation, number of endoscopically detected polyps and their characteristics (location in the colon: proximal or distal compared to the splenic flexure, type and size). All examinations were performed with high definition scopes.

***Results:*** Among the 775 colonoscopies that were performed during the study period, 189 (24.4%) examinations found polyps. Patients with polyposis were excluded. The average age was 60,8 years old. There were 47.6% of men and 52.4% of women. The most frequent indications were: rectal bleeding (25.9%), control colonoscopy after polypectomy or colorectal cancer treatment (22.75%) and colonoscopy after positive fecal occult blood test (22.2%). Boston score was>6 in 68,8% of cases. Cecum intubation was present in 95% of cases. A total of 404 polyps were found, with a mean number of endoscopically detected polyps of 2,14 polyps per colonoscopy. Polyps were sessile in 88.8%, pedonculated in 7.7% of cases. The mean polyps size was 6.3 mm with a range from 2 mm to 35mm. Polyps were detected in the proximal colon in 48.7% of cases and in the distal colon in 51.3% of cases. The mean size of polyps in the proximal colon was of 5.6 mm, and in distal colon 7.8 mm.

***Conclusion:*** In our study, the main indication that led to polyp detection was rectal bleeding, polyps size was higher in distal locations and there is no significant difference in polyps location and number between distal and proximal colon.

***Keywords:*** Polyps detection rate, colonoscopy indication, polyps distribution

***PP-625***

## *Place of the abdominal ultrasound in the management of abdominal pain during Crohns disease*

**Soua Sabrine, Issaoui Dhilel, Kchir Hela, Trad Nouha, Chaabouni Hatem, Maamouri Nadia**

*La Rabta Hospital, Tunis, Tunusia*

***Background/Aims:*** Abdominal pain is an important and common symptom during Crohns disease. The purpose of our work was to evaluate the place of abdominal ultrasound (AU) as well as to look for a correlation of this exam with abdominal scan (CT) in case of abdominal pain (AP) during Crohn's disease.

***Materials and Methods:*** We conducted a retrospective study of consecutive patients with Crohns disease who were hospitalized in our department from January 2016 to December 2018.

***Results:*** We included 100 patients (64 women and 36 men) with a mean age of 37 years (17-68 years). An AU was performed for an AP in 25.7%. It was pathological in 58.3%. It revealed an anomaly of the ileocecal junction in 12.5%, a thickening of one or more digestive handle in 33.3% and an abdominal collection in 4.2%. Of the patients who benefited from an AU, 57.7% had an additional exploration by CT. It was abnormal in 80% of cases. A statistically significant correlation was not found between AU and CT (p=0.19).

***Conclusion:*** In our study, AU had a limited role in the management of abdominal pain during Crohns disease.

***Keywords:*** Abdominal pain, sbdominal ultrasound, Crohns disease

---

***PP-626***

## *Rates of anti-TNF use in patients with ulcerative colitis undergoing colectomy*

**Serkan Duman[1], Zeynep Ellik[1], Ayda Aydoğan[2], Büşra Haktanıyan[2], Ece Bilgiç[2], Leyla Tatar[2], Buğu Bulat[2], Kübra Köken[2], Hülya Çetinkaya[1]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Chronic ulcerative colitis can be treated with total proctocolectomy or medical therapy. The choice of treatment should be individualized according to patient features and preferences, and existing facilities. It is anticipated that approximately 20 to 30 percent of patients with advanced ulcerative colitis will undergo surgical resection.

***Materials and Methods:*** This study was conducted by retrospectively scanning the files of the patients who were hospitalized in Gastroenterology Clinic of Ankara University Ibn-i Sina Hospital from January 2016 to April 2019.

***Results:*** We have included 32 patients who underwent colectomy with ulcerative colitis in this study. 15.6% (5 patients) of patients who underwent surgery had left colon type disease; 32.1% of patients (9 patients) had extensive type disease and 64.2% of patients (18 patients) had pancolitis type disease. We found that 39.2 percent of patients received anti-TNF treatment and all patients received mesalazine treatment, 71.8 percent of patients received azathioprine treatment, 57.1 percent of patients received steroid treatment.

***Conclusion:*** Surgery continues to play an important role in the treatment of severe ulcerative colitis. Although anti-TNF treatment reduces colectomy rates, a considerable number of patients still require surgery under anti-TNF treatment.

***Keywords:*** Anti-TNF, colectomy, ulcerative colitis

***PP-627***

## *The role of endoscopic ultrasonography in esophageal cancer staging*

**Mehmet Bektaş[1], A. Mübin Özercan[1], Serkan Duman[1], Gökhan Kocaman[2], Lubna Kamani[1], Aysun Çalışkan[1], Mesut Gümüşsoy[1], Ramazan Erdem Er[1], Zeynep Melekoğlu Ellik[1], Hakan Kutlay[2]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Thoracic Surgery, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Endoscopic ultrasonography (EUS) is an effective and reliable method for local staging of esophageal cancers and provides information about the prognosis of the disease. EUS staging is performed only after distant metastasis is excluded from CT or PET-CT. The goal of this study is to compare EUS staging with postoperative histopathological staging, which is the gold standard in patients diagnosed with esophageal cancer without distant metastasis by CT or PET-CT after preoperative or neoadjuvant CRT and to investigate the diagnostic accuracy of EUS in tumor and lymph node staging.

***Materials and Methods:*** Between January 2010 and November 2018, 139 patients diagnosed with esophageal cancer in the Chest Surgery Clinic of Ankara University Faculty of Medicine underwent preoperative radial type EUS device staging in the EUS laboratory of Gastroenterology Department. Histopathological and EUS stages of 74 operated out of 139 patients were compared. TNM classification was used for EUS staging.

***Results:*** Of the 74 patients included in the study, 43 (58.1%) were male and 31 (41.9%) were female, and the mean age was 59 (28-86). The tumor was located in the distal esophagus in 54 patients, in the distal esophagus and esophagogastric junction in 8 patients, and in the middle esophagus in 9 patients. Biopsy revealed 40 patients with squamous cell carcinoma and 23 patients with adenocarcinoma. The mean tumor length was 5 cm. The mean tumor thickness in EUS was 13.6 mm. 25 (33.7%) of 74 patients who underwent preoperative staging with EUS received neoadjuvant CRT. In 49 patients who did not receive preoperative CRT, the diagnostic accuracy rate of EUS was according to stages; T1: 66.6%, T2: 80%, T3: 65%, T4: 0%, overall: 65%; N staging rate was 92%. In 29 patients who received neoadjuvant CRT, the diagnostic accuracy rate of EUS was T1: 33%, T2: 50%, T3: 55.5%, T4: 100% and overall: 40%. All of the 7 patients who did not detect any tumor on histopathological examination after surgery the EUS stage was minimal T1 and above.

***Conclusion:*** EUS is an effective and reliable method in the preoperative staging of esophageal cancers. The diagnostic accuracy rate of US in restaging after CRT is low, and in all patients with no tumor detected after surgery, the EUS stage was minimal T1 and above.

***Keywords:*** Esophagus, cancer, EUS

---

***PP-629***

## *Can hot biopsy forceps still be safely used for subcentimetric colorectal polyps?*

**Meryem Belghiti Alaoui, Meriem Bakkar, Laila Amrani**

*Gastroenterology Unit, Digestive Surgical Oncology Department, National Oncology Institute, Rabat, Morocco*

***Background/Aims:*** Colorectal cancer is an extremely common cancer with high mortality. Endoscopic removal of colorectal polyps reduces its incidence. Multiple polypectomy techniques and tools are used by endoscopists but their availability and the preferences may vary. The recent guidelines for polypectomy strongly recommend the use of the cold snare instead of hot biopsy forceps for 6-9mm sessile polyps. One of the reasons of this recommendation is the unacceptably high risk of hot forceps biopsy adverse events. In our practice, the cold snare isn't available. Therefore, the aim of this study is to discuss the appropriateness and safety of the use of hot forceps biopsy in polyps removal.

***Materials and Methods:*** We report a retrospective study of 775 colonoscopies performed from April 2018 to March 2019 in the gastro enterology unit at the National Institute of Oncology. Patients data was collected from colonoscopy reports.

***Results:*** Among the 775 colonoscopies that were performed during the study period, 189 (24,4%) examinations found polyps. Patients with polyposis were excluded. The average age was 60.8 years old, there were 47.6% of men and 52.4% of women. 6.34% had family history of colorectal cancer. The main colonoscopy indications were rectal bleeding (25.9%), control colonoscopy after polypectomy or colorectal cancer treatment (22.75%), colonoscopy after positive fecal occult blood (22.2%), constipation (10.6%) and anaemia (9.5%). Boston score was above 6 in 68.8% of cases and caecum intubation was in 95% of cases. 404 polyps were found in 189 colonoscopies, Polyps were sessile in 88.8%, pedonculated in 7.7%. 78.46% of polyps were removed. We performed polypectomy with hot forceps in 33.1% of cases. The mean polyps size was 6,3 mm. The polypectomy was complete in all cases and no adverse events was observed.

***Conclusion:*** In conclusion, in our study, polypectomy with hot biopsy forceps was safe with no adverse event and can still be an option for polyps resections.

***Keywords:*** hot biopsy forceps, safety, polypectomy

---

***PP-630***

## *Crohns disease and related diseases*

**Oussama Kharmach, Mohamed Borahma, Nawal Lagdali, Camélia Berhili, Imane Benelbarhdadi, Fatima Zohra Ajana**

*Department of Gastroenterology C, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** The association of Crohns disease (CD) with other diseases is rare and has been little studied. The aim of our work is to study the profile of Crohns patients with this association.

***Materials and Methods:*** A 35-year retrospective study of patients followed for CD.

***Results:*** Among 871 patients 51 (6%) had an associated disease, mean age=36 years (4% A1, 69% A2, 27% A3), sex ratio=1.04, familial CD in 5 patients. Location: 12% ileal (L1), 49% colonic (L2) + isolated upper disease (L4) in 8%, 37% ileocolonic (L3). Phenotype: 63% luminal (B1), 22% stricturing (B2), 15% penetrating (B3), perineal disease (P) in 27% including 1 case of isolated perineal CM. There were 16 associated diseases: 24% Ankylosing Spondylarthritis (AS), 22% Primary sclerosing cholangitis (PSC), psoriasis and celiac disease at the same frequency=18%, 8% Behcets disease. 6% Autoimmune Pancreatitis (AIP). Pyoderma gangrenosum, sarcoidosis and IgA nephropathy at frequency=4% each. 2% for each of the following diseases: Biermer, bullous dermatitis, type 1 Diabetes (T1D), vitiligo, Plumer Vincents (PV) sundrome, renal amylosis, autoimmune thyroiditis (AIT). There are 10 cases (20%) of Crohns disease with two associated diseases at the same time (psoriasis-PSC, psoriasis-T1D, AS-Behcet, PSC-Celiac, sarcoidosis-Celiac, PSC-AIP, celiac-AIP, psoriasis-AS, celiac-AIT, AS-PV). The evolution was favorable under specific treatment of the associated disease in collaboration with the other specialties. For PSC, there are 1 case with a history of operated pancreatic mucinous cystadenoma, 1 case developed cholangiocarcinoma under chemotherapy, 4 cases developed portal hypertension on lever cirrhosis under esophageal varices eradication protocol, the others respond well to treatment with ursodeoxycholic acid. Patients with celiac disease have progressed well under a gluten-free diet. The patient with Biermers disease is lost sight of. The patient with Plummer Vincent syndrome received iron supplementation and esophageal dilation with good evolution. There were 3 deaths: 1 (SA) from miliary tuberculosis, 1 (renal amyloidosis) from cardiac arrest on myocarditis, 1 (PSC) from mesenteric infarction.

***Conclusion:*** This association affects young adults, without gender difference, predominate in Crohns disease of colonic location and luminal phenotype. SA and PSC are found in almost half of the patients.

***Keywords:*** Crohns disease, association, profile

***PP-631***

## *Assessment of severity of acute liver injury and its outcome in patients with dengue fever in Lahore and Rawalpindi*

**Talal Bhatti, Muhammad Umar, Mashood Mashood Ali, Aamir Saleem**

*Pakistan Institute of Medical Sciences, Islamabad, Pakistan*

***Background/Aims:*** To evaluate the impact of Dengue Virus infections on liver by measuring aminotransferase levels of the patients suffering from DF during epidemic in Lahore in 2011 and in Rawalpindi in 2015

***Materials and Methods:*** It is a multi-centered retrospective analysis of 1700 patients (1000 from LGH Lahore and 700 from HFH, Rawalpindi in 2011 & 2015 respectively. Data was analyzed in SPSS 19 with 16 variables on which relevant details were noted. The degree to which the liver was affected was evaluated in these patients and classified into four groups according to AST and ALT levels (The laboratory reference values of AST & ALT for males and females were 28 & 26 IU and 30 & 29IU/L, respectively) at the time of presentation.

***Results:*** The patients were classified in to classical DF, DHF and DSS (77.6%, 20.6% and 1.8% respectively. The degree of rise in aminotransferases indicating liver injury observed in LGH, Lahore was 34.9% (Grade A), 48.5% (Grade B), 14.8% (Grade C) and 1.8% (Grade D). However, in BBH, Rawalpindi, it was observed as 43.8% (Grade A), 49.3% (Grade B), 6.6% (Grade C) and 0.3% (Grade D). In classic DF patients, (5% vs 2.8%) were having grade C & D liver damage and (95% vs 97.2%) have no significant liver injury in LGH and HFH respectively. In DHF, aminotransferases were high in (83.2% vs 68.6%) of which (71.3% vs 54.8% patients have Grade C and (31.8% vs 17.3%) have Grade D Liver injury. In patients with DSS, (10% vs 3.1%) have Grade C and 90% vs 83.2%) with Grade D (Highest mortality and long term morbidity) in LGH and HFH respectively.

***Conclusion:*** In Dengue outbreaks in Lahore (2011) and Rawalpindi (2015), majority of patients suffered from DF and a rise in liver enzymes was observed in majority of patients though a significant rise of liver enzymes (Grade D) was observed in patients suffering from DHS and DSS patients only. However, there is significant rise in liver enzymes in 2011 epidemic as compared to 2015 in comparative analysis of two Divisions of Punjab.

***Keywords:*** DHSS, DSS

---

***PP-633***

## *Assessment of solid pancreatic lesions with EUS elastography*

**Mehmet Bektaş[1], Mesut Gümüşsoy[1], A. Mübin Özercan[1], Ramazan Erdem Er[1], Koray Ceyhan[2]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Cytopathology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Evaluation of EUS-FNA cytology results with EUS-elastography color pattern and strain ratio scores in malignant solid lesions of the pancreas.

***Materials and Methods:*** 132 patients who had pancreatic lesions detected with EUS in our department between January 2014 and June 2019 were included in this retrospective study. EUS elastography color pattern, strain ratio measurements and real-time EUS FNA were performed on all patients. The tissue stiffness score and coloration modes of the lesions were evaluated. We divided the lesions into five groups by their coloration modes: dark blue, blue, yellow-green, yellow-green-blue and blue-green and also into two groups by their tissue stiffness: strain ratio scores ≥4 or <4

***Results:*** 132 patients with solid pancreatic lesions were included in this study. 78(59.1%) were male with an average age of 60.6, and 54 (40.9%) were female with an average age of 54.5. The mean diameter of the long and short axis were 27.1 mm and 21.5 mm, respectively. Cytopathology results revealed that 78 (59.1%) lesions were malign. The median strain ratio of all malignant lesions was 34.5 (1.5-444). Of the lesions with a value of 4 or higher, 75 (96.2%) were malignant. According to the elastography coloration mode of malignant lesions, 64 (82.1%) lesions were dark blue, 8 (10.3%) were blue, 3 (3.8%) were green-blue, 1 was (1.3%) blue-green-yellow, and 2 (2.6%) were green-yellow.

***Conclusion:*** EUS is an effective and safe method for assessing solid pancreatic lesions with fine needle aspiration. 96,2% of patients with diagnosed malignancy showed tissue stiffness (strain ratio) ≥4 with EUS elastography. Endoscopic elastography is a non-invasive method, which can discriminate between malign and benign pancreatic solid lesions.

***Keywords:*** EUS-FNA, elastography, cancer

---

***PP-634***

## *Family form of Crohns disease: What is special about it?*

**Oussama Kharmach, Mohamed Borahma, Nawal Lagdali, Camélia Berhili, Imane Benelbarhdadi, Fatima Zohra Ajana**

*Department of Gastroenterology C, Ibn Sina University Hospital, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** The family forms of IBD are the result of the genetics and environment shared by the relatives. The purpose of our work is to study the profile of the patients followed in our department to determine the characteristics of the family forms of Crohns disease.

***Materials and Methods:*** A 35-year retrospective study of patients followed for Crohns disease with a family history of IBD.

***Results:*** We have 867 patients followed for Crohns disease, 46 of whom had a family form of IBD. The average age of onset of the disease is 34.65% years (4.34% A1, 65.21% A2, 30.43% A3), sex-ratio (F/M)=1.09, there is a history of breast cancer operated with radio chemotherapy in 1 patient, vitiligo in 1 patient, psoriasis in 2 patients. The concordance between the same disease (Crohn) is found in 93.47% of patients while the mixed form (Ulcerative Colitis) is revealed in 8.69%, including one case with both forms (UC in the mother and Crohns disease in the first cousin). First-degree relatedness was found in 21.73% of cases, second degree in 54.34%, third degree in 23.91% and fourth degree in 13.04%, including 6 cases with two relatedness with IBD. The location (Montreal classification) was: 21.73% ileal (L1), 34.78% colonic (L2), 41.43% ileocolonic (L3), 10.86% upper digestive tract L4 (isolated in 1 patient and associated with other locations in 4). The phenotype: luminal (B1) in 47.82%, structuring (B2) in 41.30%, penetrating (B3) in 17.39%, 39.13% of cases had perineal disease (P). The evolution was marked by the occurrence of ankylosing spondyloarthropathy in 1 patient followed in parallel with rheumatologists but died by tubercular miliaria, celiac disease in 3 patients progressing well under a gluten-free diet, autoimmune pancreatitis in 1 patient lost to vision, Plummer Vincents disease in 1 patient supplemented with injectable iron and having received an oesophageal dilatation, 1 patient was operated for severe acute colitis, 1 patient developed a pulmonary embolism with cerebral thrombophlebitis treated but having kept a facial paralysis, 1 patient developed an adenocarcinoma of the left colon discovered during a screening colonoscopy operated then put under radio chemotherapy with good evolution, 1 patient died by a macrophageal activation syndrome on urinary infection with Klebsiella Pneumonia.

***Conclusion:*** This form of Crohns disease (5.33% in our study) affects young adults (A2) without significant gender difference, predominant in ileocolonic disease (L3), and luminal phenotype with concordance between the same disease and criminalization of second-degree related links, and a high frequency of associated autoimmune disease, hence the interest of a genetic study to study the genetic code of this Crohns disease population.

***Keywords:*** Crohns disease, family form, IBD

***PP-635***

## *Is resolvin D1 a serum marker for inflammatory activity and treatment response in patients with chronic viral hepatitis?*

**Özlem Gül Utku[1], Bilal Ergül[1], Üçler Kısa[2], Dilek Oğuz[1]**

*[1]Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*
*[2]Department of Biochemistry, Kırıkkale University School of Medicine, Kırıkkale, Turkey*

***Background/Aims:*** Reports on the usefulness of serum markers for predicting liver inflammation are limited. The aim of this study was to evaluate the efficacy of resolvin D1 in predicting significant inflammation and treatment response in patients with chronic hepatitis B(CHB).

***Materials and Methods:*** One hundred seventeen patients with CHB divided into three groups: inactive carriers (*n*=35, 18 women and 17 men), naiv CHB patients (*n*=44, 17 women and 27 men, aged 18-76 years), CHB patients receiving treatment (*n*=38, 17women and 21 men) and healthy subjects (*n*=36, 19women and 17 men) were enrolled in this study. Resolvin D1 levels were measured by ELISA technique.

***Results:*** Resolvin D1 levels were 205.64 pg/ml (52.57-712.45)in the naiv CHB group, 523.71 205.64 pg/mL (142.27-2112.55) in the inactive carriers group, 672.51 pg/mL (336.94-2228.50)in the healthy control group and 720.00 pg/mL (135.57-3271.41) in the CHB patients receiving treatment group. There was a significant difference between the 4 groups. Resolvin D1 levels were lower in the naiv CHB group than in the inactive carriers, healthy control, CHB patients receiving treatment group. CHB patients receiving treatment group compared to the healthy control group, resolvin D 1 levels were lower in the healthy control group. At ROC-defined, resolvin level <353 separates naive patient group from inactive patient group with 75% sensitivity and 77% specificity. Resolvin level >384,29 separates naive patient group from treatment group with 88%88 sensitivity and 83% specificity.

***Conclusion:*** Our study were shown that resolvin D1 level was an independent predictors of to evaluate disease activity and treatment response.

***Keywords:*** Cronic viral Hepatitis B, liver inflamation, resolvin D1

---

***PP-636***

## *Risk factors of severe acute colitis during Crohns disease*

**Soua Sabrine, Issaoui Dhilel, Kchir Hela, Trad Nouha, Chaabouni Hatem, Maamouri Nadia**

*La Rabta Hospital, Tunis, Tunusia*

***Background/Aims:*** Acute severe colitis (ASC) is a severe disease of the colonic mucosa that can occur at any time of the evolution of Crohns disease. It is a serious disorder that can be life-threatening. The purpose of our work was to identify the risk factors of ASC during Crohns disease.

***Materials and Methods:*** We conducted a retrospective comparative study of patients with Crohns disease who were hospitalized in our department between January 2016 and December 2018.

***Results:*** We included 100 patients (64 women and 36 men) with a mean age of 37 years. An ASC was noted in 14 patients. Patients with at least one episode of ASC were younger than patients who never had ASC (age 28 versus age 40, p=0.004) with a higher smoking rate (25% versus 14.3%, p=0.04). Previous treatment with oral corticosteroid was more common in

patients with ASC (71.4%versus 44.7%, p=0.003). Crohn Disease Activity Index (CDAI) greater than 150 in the three months preceding the ASC episode had a statistically significant correlation with the onset of ASC. There was no statistically significant difference between the two groups in the incidence of family history of IBD (p=0.19).

***Conclusion:*** Young age, smoking and disease activity (CDAI) were risk factors of ASC during Crohns disease. Among these factors are those that can be used to prevent the occurrence of serious colitis and thus offers a better control of the disease.

***Keywords:*** Acute severe colitis, Crohns disease, Risk factors

---

***PP-637***

## *The diagnosis and therapeutic interest of endoscopic retrograde cholangiopancreatography in biliary distomatosis: About 2 CAS*

**Sara Jamal, Hassan Seddik, Khaoula Loubaris, Michael Samy, Reda Berraida, Ilham El Koti, Ahmed Benkirane, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology II, The Military Training Hospital Mohammed V, Rabat, Morocco*

***Introduction:*** Hepatic Distomatosis or Fasciolosis is a parasitosis caused by Fasciola Hepatica. It discovery is often made at the stage of symptoms of biliary or pancreatic obstruction. The diagnosis remains difficult especially in low endemic areas. We report two cases of hepatic distomatosis simulating choledochal erosion for the first and one cholangiocarcinoma for the second, noting the diagnostic and therapeutic value of endoscopic retrograde cholangiopancreatography in this exceptional situation.

***Case 1:*** A 40-year-old patient was admitted for cholestatic jaundice. Ultrasonography revealed hypoechogenic images of the main bile duct suggestive of choledochal lumen. During endoscopic retrograde cholangiopancreatography, the main bile duct was dilated with several gaps within it. The balloon extraction brought back several moats. The specific serology returned positive and the evolution was favorable after treatment with Praziquantel.

***Case 2:*** A 53-year-old patient was admitted for outbreaks of cholangitis. The morphological assessment (tomodensitometry "CT-scan"and magnetic resonance imaging "MRI") was in favor of a biliary dilatation upstream of a hilar tumoral process evoking a cholangiocarcinoma. Endoscopic retrograde cholangiopancreatography showed an appearance of lower bile duct stenosis with lacunary images upstream. After sphincterotomy, the extraction balloon brought back only clots of blood (hemobilia). The recovery of the patient after placement of a naso-biliary drain, allowed the extraction of stones and parasitic material evoke moats. The specific serology was positive and the evolution under Praziquantel was favorable.

***Conclusion:*** Through these two cases, we highlight the diagnostis difficulties and especially the therapeutic value of the endoscopic retrograde cholangiopancreatography during hepatic distomatosis, which every practitioner must keep in mind in front of obstructive jaundice.

***Keywords:*** Biliary fascioliasis, endoscopic retrograde cholangiopancreatography (ERCP), endoscopic sphincterotomy

---

***PP-638***

## *Pulmonary embolism as the initial presentation of hepatocellular carcinoma in a Nigerian*

**Lukman O. Abdulkareem, Augustine O. Uhunmwangho, Alexander A. Akor, Ojonugwa A. Ameh, Crystal C. Umejiaku, Lawrence Meliga**

*Department of Internal Medicine, University of Abuja Teaching Hospital, Abuja, Nigeria* Pulmonary embolism (PE) may

be the first presentation of hepatocellular carcinoma (HCC) as observed in this case of a 50year old Nigerian male who presented to the emergency room with one week history of progressive breathlessness. Though he had upper abdominal discomfort predating the breathlessness, he did not present to the hospital because he was self-medicating with analgesics. At presentation he was in respiratory distress, tachypneic, tachycardic with an oxygen saturation of 45% to 75% before oxygen therapy was commenced. He was admitted in the intensive care unit and evaluated further. A computer tomographic scan (CT) of the chest revealed extensive bilateral pulmonary thrombo-embolism with thrombosis of the superior and inferior vena cavae as well as a hepatic mass. He was commenced on anti-coagulation and he made remarkable improvement. A triphasic abdominal CT scan subsequently done showed hepatomegaly (24cm) with a huge irregular hypo to iso-dense intra-hepatic mass in the left lobe measuring 18.9x10.5x17.9cm. The mass showed heterogenous vivid irregular peripheral enhancement in the arterial phase and a washout in the venous phase-features consistent with HCC. A liver biopsy was contra-indicated because of his anti-coagulation therapy. Hyper-coagulable state may be found in a number of malignancies. However, PE as the presenting feature of HCC has been rarely described in the literature. To the best of our knowledge, PE in HCC has not been reported among the Nigerian populace. Physicians should evaluate patients presenting with PE for possible malignancies (including HCC) as the cause of hyper-coagulability.

***Keywords:*** Pulmonary, embolism, hepatocellular

---

***PP-639***

## *Awareness of constipation and its relation with toilet habits among young adults from different faculties at Acıbadem University, Turkey*

**Atahan Durbaş, Çağla Solman, Hüseyin Karaman, Nisanur Kaygısız, Özdal Ersoy**

*Acıbadem University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Worldwide prevalence of constipation is nearly 20%. Unhealthy toilet behaviours such as use of smartphones in the lavatory has become a common habit especially among teenagers and adults., This common bad habit of modern life, increase the time spent in the toilet, so may lead to chronic constipation. There is a gap in the literature investigating the relationship between smartphone use in the lavatory and being constipated. The basic research question of the present study is thus designed to determine to what extent the use of smartphones increases time spent in the lavatory and whether there is an association between this increase in time and constipation. Here we aimed to find the prevalence of constipation in university students and evaluate the relation between their toilet habits and constipation status.

***Materials and Methods:*** Two hundred seventy eight students enrolled from 5 different faculties of Acibadem University (Medicine, Pharmacy, Medical Engineering, Nutrition&Dietetics and Psychology) in Istanbul, Turkey. Chronic constipation was assessed using Rome IV criteria questionnaire. Information of unhealthy and healthy lifestyles and toilet habits were interviewed by constructed questionnaires.

***Results:*** Twenty-three percent of students are assessed as chronic constipated. Use of smartphones and prolonged time spent on the toilet are significantly correlated. Students with prolonged sitting on the toilet are more likely constipated but not statistically significant relation was found.

***Conclusion:*** It is urgent to create healthy behaviors and toilet habits to reduce the risk for chronic constipation or upgrade self-rated constipation risk awareness among the university students.

***Keywords:*** Constipation, smartphone use, university students

***PP-640***

## *Immediate unprepared retrograde bowel cleansing colonoscopy in older adult patients with severe lower gastrointestinal bleeding*

**Eylem Karatay[1], Özlem Gül Utku[2]**

*[1]Department of Gastroenterology, GOP Taksim Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*

***Background/Aims:*** Colon preparation is vital yet more difficult in older adult patients with severe lower gastrointestinal bleeding (LGIB). The aim of this study is to demonstrate the efficacy, safety, and outcomes of unprepared polyethylene-glycol-flush retrograde colon cleansing in the diagnosis and treatment of older adult home care patients with LGIB.

***Materials and Methods:*** A single-center study was performed between January 2014 and June 2018. Older adult home health care patients presenting with hematochezia were prospectively enrolled, and an unprepared retrograde bowel cleansing colonoscopy was performed within the first 8 hours after admission to the emergency department. Polyethylene glycol (PEG) solution (2L) was added in to the water jet tank, and jet pump injection was started from the cecum to rectum in first colonoscopy.

***Results:*** Thirty-three older adult home health care patients presenting with hematochezia were evaluated. Mean first and second procedure times were 21.36±6.36.92 and 28.66±6.88 respectively. Total mean the Boston Bowel Preparation Scale was calculated as first procedure 3.21±0.78 and second procedure 7.18±0.88respectively. The most bleeding localization was the right colon at 22 patients (66.3%). The most causes of LGIB included diverticulum 13 (39.4%) and angiodysplasia 10 (30.3%). Endoscopic treatment was performed in 87.9% of patients. The average length of stay *in the hospital* was 44.70±42.81 (range 18.00-240.00 hrs).

***Conclusion:*** Immediate unprepared polyethylene-glycol-flush colonoscopy in older adult home care patients with acute LGIB is a safe and effective method, which detects bleeding sources and provides endoscopic therapy. With this procedure, time of hospital stay is reduced. This approach may be used for the initial intervention in patients admitted to the emergency departments or ICU with severe acute LGIB.

***Keywords:*** Lower gastrointestinal bleeding, older adult, retrograde colon cleansing

---

***PP-641***

## *Cystogastrostomy under echoendoscopic control in the drainage of pancreatic collections: Experience of a Moroccan department*

**Khaoula Loubaris, Hassan Seddik, Sara Jamal, Samy Michael, Reda Beraida, Ilham El Koti, Ahmed Benkirane**

*Department of Gastroenterology II, Military Hospital of Rabat, Rabat, Morocco*

***Background/Aims:*** Pseudocyst are defined according to the Atlanta Consensus Conference as collections of pancreatic fluid surrounded by a tissue wall fibrous granule devoid of epithelium. Therapeutic options available currently are surgical treatment, radiological drainage, and endoscopic treatment. The objective of our study is to evaluate the therapeutic results of endoscopic guided cystogastrostomy in the treatment of pseudocysts of the pancreas and compare them with data from the literature.

***Materials and Methods:*** This is a retrospective and descriptive study of patients with symptomatic and persistent pancreatic pseudocysts after six weeks. All these patients had benefited from a cystogastrostomy guided by endoscopic ultrasound us-

ing a linear echoendoscope and a cystotome. A or several prostheses were then set up depending on the size of the collection and its content.

***Results:*** 23 patients underwent EUS guided cystogastrostomy. The sex ratio H / F was 1.5. Pseudocysts complicated acute pancreatitis in 20 patients, pancreatic surgery in one patient and was post-traumatic in a patient. The average age of the patients was 52.69 +/-12.85 years. The average size of pancreatic collections was 11.95 +/-3.24cm. The technical success rate was 95.65%. The complication rate was 4.5%. During an average follow-up of 8.7 +/-5.26 months, the therapeutic success rate was 90.9%. Two patients have presented a clinical recurrence due to superinfection and were both treated by surgery. The overall mortality rate was 4.35%.

***Conclusion:*** The results of our study confirm the efficacy and safety of endoscopic guided cystograstrostomy in the first line treatment of pancreatic pseusocysts, and therefore invite us to use it whenever the means permit.

***Keywords:*** Cysts of pancreas, cystogastrostomy, interventional endoscopy

---

***PP-642***

## *A solido-cystic lesion of the liver revealing a hepatocellular carcinoma*

**Soua Sabrine, Issaoui Dhilel, Kchir Hela, Trad Nouha, Chaabouni Hatem, Maamouri Nadia**

*La Rabta Hospital, Tunis, Tunusia*

Imaging plays an important role in the management of patients with hepatocellular carcinoma (HCC) because it poses the diagnosis to be made without the need for histopathological evidence in contrast to other cancers. A radiological diagnosis that is based essentially on the classification of LI-RADS. We present the following case to illustrate an atypical radiological aspect of HCC. This is a 78-year-old patient non alcoholic, with the history of epigastric pain and right hypochondrium evolving since three months in a context of alteration of the general condition. The physical examination showed: a WHO at three, cutaneo-mucous pallor, an apyrexic patient, a BMI at 24kg/m2 and a voluminous mass of the right hypochondrium of 14cm with firm consistency and sensitive to the palpation. In addition, one notes the absence of portal hypertension and hepatocellular insufficiency signs. Biological assessment showed twice-normal cytolysis, hypo-albuminemia at 27.5 g/L, PT at 72% and biological inflammatory syndrome. The diagnoses first mentioned were abscess or hepatic neoplasia. The blood cultures were negative. An abdominal ultrasound and an abdominal scan were performed showing a large solidocystic mass of 15cm with heterogeneous enhancement without washout of the IV segment on a non dysmorphic normal sized liver with regular contours. In view of the diagnostic difficulty, a liver biopsy puncture was performed. Histological examination concluded to a well-differentiated hepatocellular carcinoma and most probably developed in chronic liver disease classified as AF3 according to METAVIR classification. In the context of etiological diagnosis, viral serologies B and C were performed demonstrating a positive HbS antigen. The value of alpha feto-protein was 15 µg/L (normal value less than ten). The extension balance was negative. The decision of the multidisciplinary staff was to operate the patient; a heavy gesture that was refused by the patient. The diagnosis of HCC is often made on a typical vascular behavior of imaging. We report one of the rare cases of solidocystic HCC whose diagnosis was confirmed by the pathological study.

***Keywords:*** Hepatocellular carcinoma, solidocystic lesion of the liver

---

***PP-643***

## *Neuroendocrine cell hyperplasia of the stomach*

**Merve Başar, Nilay Danış**

*Karabük University Training and Research Hospital, Karabük*

***Background/Aims:*** Neuroendocrine cell hyperplasia (NCH) of the stomach is one of the histological changes of helicobacter pylori gastritis. NCH is generally distinctive in atrophical gastritis. NCH could be micronodular or linear; and could lead into dysplasia or neoplasia. The aim of this study is to present our one year experience of NCH in an industrial city in which heavy metal exposure is evident.

***Materials and Methods:*** Between July 2018-June 2019 pathological samples that were obtained of all patients via endoscopy were collected and analyzed

***Results:*** Totally 22 patients with NCH were analyzed. Mean age of patients was 60.3; there were 12 male, 10 female patients. Only in 10 of the samples; there was atrophy. The type of histological samples was both linear and micronodular in 13 patients samples. 3 of patients samples had displasia. There was accompanying intestinal metaplasia in 15 of samples. Half of patients samples had either intermadiate or advanced intestinal metaplasia. Interestingly; only 3 of patients had helicobacter pylori in their gastric samples.

***Conclusion:*** Both neuroendocrine cell hyperplasia and intestinal metaplasia are increasing maybe probably because of heavy metal exposure in our city.

***Keywords:*** Neuroendocrine cell hyperplasia, intestinal metaplasia, atrophy

---

***PP-644***

## *The papillomatosis of biliary duct: About a case and a review of literature*

**Khaoula Loubaris, Hassan Seddik, Sara Jamal, Samy Michael, Reda Beraida, Ilham El Koti, Aziz Zentar [2], Ahmed Benkirane**

*[1]Department of Gastroenterology II, Military Hospital of Rabat, Rabat, Morocco*
*[2]Department of Visceral Surgery II, Military Hospital of Rabat, Rabat, Morocco*

***Introduction:*** Papillomatosis of the bile ducts is a very rare pathology; only a hundred cases have been reported in the literature.

***Case:*** We report an observation of a papillomatosis of the bile ducts complicated by hepatic metastases, collected in the department of Hepato-gastroenterology II and Visceral Surgery II of the Military Hospital of Instruction Mohammed V of Rabat, in a patient of 52 who had febrile jaundice. The treatment was surgical resection of the tumors by right costal laparotomy. The postoperative evolution was simple. The review of the literature allowed us to retain the following elements: the positive diagnosis is very difficult given the latency and the lack of clinical specificity, and despite the modern imaging means including MRI, which does not allow to assert the diagnosis and it is sometimes only preoperative exploration with anatomo-pathological examination that confirm the diagnosis, the treatment, although difficult to codify, is based on radical surgical resection according to the location of lesions by laparotomy, the definitive diagnosis is made by anatomo-pathological examination of the operative resection room, the spontaneous evolution is towards the diffusion and more often, and the malignant degeneration remains a major potential risk.

***Conclusion:*** Papillomatosis of the bile ducts, although very rare, requires early diagnosis and should not be considered a benign pathology. However, the diagnosis of certainty remains the exclusive property of pathological examination. Due to the risk of malignant transformation and the high rate of local recurrence, radical surgery is highly recommended and liver transplantation remains the ultimate curative solution with promising results.

***Keywords:*** Papillomatosis, biliary ducts

***PP-645***

## *Performance of endoscopic gravity signs in colonoscopy in the prediction of surgery in case of severe acute colitis during Crohns disease*

**Soua Sabrine, Issaoui Dhilel, Kchir Hela, Trad Nouha, Chaabouni Hatem, Maamouri Nadia**

*La Rabta Hospital, Tunis, Tunusia*

***Background/Aims:*** Acute severe colitis (ASC) is a serious manifestation of Crohns disease as it can be life-threatening. The presence of endoscopic signs of severity further aggravates the prognosis and could lead to surgical treatment. The purpose of our work was to evaluate the performance of endoscopic signs of severity at colonoscopy in case of ASC, in predicting the use of surgery during Crohns disease.

***Materials and Methods:*** We conducted a retrospective study of consecutive patients with Crohns disease who were hospitalized in our department between January 2016 and December 2018.

***Results:*** We included 100 patients (64 women and 36 men) with a mean age of 37 years. An ASC was noted in 14% of patients. Of these patients, 42.9% had endoscopic signs of severity at colonoscopy and 21.4% needed surgical treatment. A statistically significant correlation was noted between endoscopic signs of severity at colonoscopy and the need of surgery (p=0.019). Sensitivity, specificity, positive predictive value, and negative predictive value of endoscopic signs of severity at colonoscopy to predict surgical treatment were 100%, 44%, 17%, and 100%, respectively.

***Conclusion:*** The presence of endoscopic signs of severity at colonoscopy during ASC occurring in the context of a Crohns disease is very sensitive in the prediction of the recourse to surgical treatment.

***Keywords:*** Endoscopic sings of severity, colonoscopy, Acute severe colitis

---

***PP-646***

## *Bone densitometry in primary biliary cholangitis: Risk factors of hepatic osteodystrophy*

**Myriam Ayari, Shema Ayadi, Emna Bel Hadj Mabrouk, Yosra Zaiimi, Leila Mouelhi, Radhouene Dabbeche**

*Department of Gastroenterology, Charles Nicolle Hospital, Tunis, Tunusia*

***Background/Aims:*** Bone metabolic disorders are a common complication of cholestatic liver diseases and especially associated with primary biliary cholangitis (PBC). The prevalence of hepatic osteodystrophy during PBC is variable and the pathogenesis is not fully understood. The aim of this study is to determine the prevalence of osteopenia and osteoporosis and to identify the risk factors.

***Materials and Methods:*** This is a retrospective monocentric study of 53 consecutive patients diagnosed with PBC between 2000 and 2018. According to the World Health Organization, osteopenia was defined by a T-score between −1.0 and −2.5 SD, and osteoporosis by a T-score below −2.5 SD is defined as osteoporosis.

***Results:*** We included 53 patients (45 female and 8 male) with an average age of 55 years (19-78 years). Bone densitometry was performed in 30 patients. The rate of osteoporosis was 46.6% (14 patients) and the rate of osteopenia was 40% (12 patients). Osteoporotic patients had an average age of 56 years. 65% of patients with bone metabolic disorder had at least one other autoimmune disease associated with PBC. Factors significantly associated with the presence of osteopenia or osteoporosis were associated autoimmune disease (p=0.02), menopausal status (p=0.04) and cirrhosis stage (p=0.02). In our study bone metabolic disorders was not significantly associated with gender nor age.

***Conclusion:*** Bone metabolic disorders are common condition during primary cholangitis. Systematic bone densitometry should be performed for early diagnosis and treatment.

***Keywords:*** Cholestatic liver disease, osteoporosis, osteopenia

***PP-647***

## *Risk of failure and complications of endoscopic retrograde cholangiopancreatography: Comparison of elderly and young Pakistani patients*

**Talal Khurshid, Muhammad Muhammad Umar, Mashood Ali, Aamir Saleem, Ghis Tayyab**

*Pakistan Institute of Medical Center, Islamabad, Pakistan*

***Background/Aims:*** Endoscopic Retrograde Cholangiopancreatography (ERCP) is an effective diagnostic and therapeutic procedure, widely performed in patients, irrespective of age. The objective of the study was to compare the risk of failure and procedural complications in young and elderly patients.

***Materials and Methods:*** This cohort study was conducted at Holy Family Hospital, where all 362 patients who underwent the therapeutic or diagnostic ERCP performed, in the year 2014 were included and categorized as 276 young (aged 20-59 years) and 86 elderly (60 years and above) patients. The procedural and post procedural records of both study groups were followed up prospectively to compare the risk of failure of procedure and the complications during and after procedure. Chi square test was applied at 5% level of significance and Relative risks (RR) along with 95% confidence intervals (CI) were also determined through SPSS.

***Results:*** Successful therapeutic intended procedures were observed in 95.08% of elderly and 97.32% of young patients. (RR of failure 0.64, CI 0.19-2.85, p value 0.47). Similarly successful diagnostic intended procedures were performed in 88% of elderly and 91.1% of young patients. (RR of failure 1.35, CI 0.37-4.84, p value 0.64). At least one or more Procedural and post procedural complications were observed in 9.3% and 8.3% of elderly and young patients respectively (p value 0.77), where risk of complications was also observed to be the same with relative risk of 1.11 (CI 0.51-2.40)

***Conclusion:*** The success rates, risk of failure and complications of the procedure in elderly was same as that of young, providing evidence that it is an equally safe procedure for elderly too.

***Keywords:*** Cholangiopancreatography, endoscopic retrograde, age groups, risk, complications

***PP-648***

## *Prevalence of depression in inflammatory bowel disease patients on biologic therapy*

**Brigita Smolovic[1], Olivera Sekulic[1], Milos Lukic[1], Stefan Bojovic[2]**

*[1]Clinical Center of Montenegro, Podgorica, Montenegro*
*[2]University of Montenegro School of Medicine, Podgorica, Montenegro*

***Background/Aims:*** Inflammatory bowel disease (IBD) is chronic, relapsing and remitting disease with a strong influence on mental health of patients. The aim of the study was to describe stages of depression as well as compare influence on health-related quality of life in patients on intravenous biologic therapy.

***Materials and Methods:*** Study was preformed from January to June 2019 in the Clinical Center in Montenegro, referent center for IBD patients in the country. The study included 75% of Montenegrin population with IBD, treated with biologic

therapy. Patients were filling Patient Health Questionnaire (PHQ-9) with 9 questions about depression symptoms. Results were analyzed and described through final scores (0-27). Lower score refers to lower stages of depression. Summary of the health-related quality of life was valuated using SIBDQ (short inflammatory bowel disease questionnaire). Results were compared between each other using appropriate statistical tests.

***Results:*** In 90 patients in this survey, 48 was diagnosed with Ulcerative Colitis (UC), and 51 of them were males with average age 41,24±13.57. The results shown that most of patients didn't have any symptoms of depression or they had minimal depression (50%). From the mild depression suffered 27 patients, while 14 of them had moderate depression. In the end, just a 4.4% of patients had symptoms of moderately severe and severe depression. Comparing statistical data with health-related quality of life, depression is shown as a highly statistically significant parameter in systemic, social, bowel and emotional component, as well as overall quality of life in these patients (p<0.001). (Table 1) Additionaly, strong correlation is shown between disease activity as well as presence of abdominal pain and stages of depression, which is shown in the Table 2.

***Conclusion:*** The health-related quality of life is impaired in highly staged depressive patients. Recognizing all depressive factors that affect health-related quality of life will upgrade the treatment of IBD patients. Adequate therapy should improve disease activity, including presence of abdominal pain, lowering depressive symptoms and overall score.

***Keywords:*** Depression, inflammatory bowel disease, biologic therapy

***Table 1.***

| | No | Systemic Mean rank | Social Mean rank | Bowel Mean rank | Emotional Mean rank | SIBDQ Mean±SD |
|---|---|---|---|---|---|---|
| PHQ9 score | | p<0.001 | p<0.001 | p<0.001 | p<0.001 | p<0.001 |
| F | | 20.50 | 7.03 | 7.30 | 34.08 | 24.96 |
| No depression | 45 | 12.42±1.69 | 13.2±1.4 | 19.04±2.11 | 19.08±1.74 | 63.75±5.31 |
| Mild depression | 27 | 9.77±1.64 | 11.88±2.37 | 17.44±2.76 | 16.62±2.55 | 55.74±6.02 |
| Moderate depression | 14 | 8.52±2.37 | 9.9±.21 | 15.0±4.3 | 12.71±2.67 | 46.21±11.06 |
| Moderate severe depression | 3 | 9.66±1.52 | 8.33±4.16 | 14.0±3.6 | 11.0±1.73 | 43.0±8.18 |
| Severe depression | 1 | 4.0±0 | 11.0±0 | 16.0±0 | 8.0±0 | 39.0±0 |

***Table 2.***

| | PHQ9 score Mean±SD | p |
|---|---|---|
| Type of the disease | | 0.297 |
| Ulcerative Colitis (48) | 5.77±5.10 | |
| Crohn's disease (42) | 4.74±4.10 | |
| Age in 1st diagnosis in years | | 0.541 |
| 0-10 (1) | 5.0±0 | |
| 11-19 (15) | 4.67±4.16 | |
| 20-39 (48) | 4.88±4.707 | |
| 40-69 (26) | 6.42±4.909 | |
| Gender | | 0.264 |
| Male (51) | 4.92±4.47 | |
| Female (39) | 5.77±4.92 | |
| Disease activity | | <0.001 |
| Remission (19) | 1.63±2.08 | |
| Mild (49) | 4.82±3.82 | |

| | | |
|---|---|---|
| Moderate (22) | 9.50±4.86 | |
| Sever (0) | 0 | |
| Age | | 0.329 |
| ≤30y (22) | 6.14±5.68 | |
| >31 (68) | 5.01±4.29 | |
| Disease duration in years | | 0.863 |
| Less than 5 y (49) | 5.37±5.04 | |
| 5 y and more (41) | 5.20±4.22 | |
| History of smoking | | 0.274 |
| Yes (20) | 6.30±4.95 | |
| No (70) | 5.0±4.57 | |
| Hospitalization in last year | | 0.704 |
| Yes (31) | 5.55±4.23 | |
| No (59) | 5.15±4.90 | |
| Surgical treatment | | 0.264 |
| Yes (23) | 4.35±4.23 | |
| No (67) | 5.61±4.79 | |
| Abdominal pain | | <0.001 |
| Yes (56) | 3.94±4.11 | |
| No (34) | 7.47±4.7 | |

***PP-649***

## *The macrodilatation of the sphincter of oddi or sphincteroplasty in the treatment of large stones of the main bile duct*

**Khaoula Loubaris, Hassan Seddik, Sara Jamal, Samy Michael, Reda Beraida, Ilham El Koti, Ahmed Benkirane**

*Department of Gastroenterology II, Military Hospital of Rabat, Rabat, Morocco*

***Background/Aims:*** The macrodilatation of the sphincter of Oddi (MDSO) or sphincteroplasty consists of a large dilatation of the papilla which completes an endoscopic sphincterotomy in cases of large main bile duct stones. The aim of this work is to evaluate the results and complications of sphincteroplasty and associated factors.

***Materials and Methods:*** This is a retrospective study conducted at the Gastroenterology II Department of the Mohamed V Military Teaching Hospital between January 2008 and January 2019, including 48 patients diagnosed with large stones of the main bile duct, defined by a diameter ≥ 15 mm and whose treatment required the use of sphincteroplasty. The success of the gesture was defined by the absence of residual stone at the end of the procedure. Statistical analysis was performed by the SPSS version 20 software using the binary logistic regression model in univariate and multivariate analyzes. The associated factors studied are: age, sex, and diameter of the main bile duct, number of stones, presence of cholangitis, bile duct size disparity, and the concept of anterior sphincterotomy.

***Results:*** The mean age of the patients was 63.5±12 years (40 years to 83 years). The sex ratio was 0.7 (28 women, 20 men). 11.3% of the patients included in the studies had a history of cholecystectomy, 6.8% of the patients had gallbladder stones, 57.9% of the patients had multiple stones (≥2), 29.6% had 13.6% of patients had an associated endoscopic sphincterotomy, and in 11.3% there was a difference in caliber between the calculation and the diameter of the bile duct downstream. The clinical presentation of the patients was as follows: cholangitis was found in 7 patients; dissociated biliary symptoms suggestive of lithiasis migration in 28 patients while 13 patients showed no symptoms. The average number of stones found

was 1.86±0.8 per patient with extremes ranging from 1 to 10. The average diameter of the bile duct was 18±4 mm, that of the stones was 18±2mm, and that of Macrodilating balloon was 16.9±1.5 mm with extremes ranging from 14 to 20 mm. The success rate of sphincteroplasty was 91.6% (44 patients). Extraction was not possible in 4 patients with large stones with an average diameter of 19±2 mm. Two of these patients had undergone a plastic biliary prosthesis; the other two were surgically treated. The complication rate was 6.8% in the form of minimal bleeding from the margins curbed by pneumatic compression. In univariate analysis, only sex emerged as a factor associated with successful sphincteroplasty (p=0.03, OR=0.05, 95% CI (0.03-0.77)). While in multivariate analysis, by adjusting the factors studied, no factor seems to be associated with the failure or success of sphincteroplasty.

***Conclusion:*** Macrodilatation of the sphincter of Oddi or sphincteroplasty is an effective method at the cost of a low morbidity for the endoscopic extraction of large stones of the main bile duct. The success rate is 91.6% and immediate complications are rare. No factors studied seem to be associated with the failure or success of this technique.

***Keywords:*** Macrodilatation, large biliary stones, main bile duct

---

***PP-650***

## *Esophageal varices-the most frequent and rising endoscopic finding in patients with upper GI bleed in Pakistani population*

**Talal Khurshid, Muhammad Muhammad Umar, Mashood Ali**

*Pakistan Institute of Medical Center, Islamabad, Pakistan*

***Background/Aims:*** To find out the upper GI endoscopy findings in patients presenting with UGIB in relation to age, gender and etiology.

***Materials and Methods:*** A retrospective analysis of 3910 patients presented to GI Department from January 2011 to October 2014 for endoscopic evaluation of UGIB. The data was analyzed on SPSS20, descriptive statistics were recorded, and results were analyzed as in given table.

***Results:*** The pattern of pathologies on EGD is as shown as: -

***Conclusion:*** EV is the commonest cause of UGIB in our territory manifested mainly by hemetemesis and it is due to high endemic nature of HCV infection among the male population in Central Punjab as compared to the western world which is mainly PUD. A good number of patients had normal EGD which warrants us to locate for other causes that mimic UGIB.

***Keywords:*** Esophageal varices, peptic ulcer disease, gastritis

| No | Endoscopic Finding | Number | age (%) | Mean Age (yrs) | Male: Female ratio |
|---|---|---|---|---|---|
| 1 | Esophageal varices (EV) | 2998 | 76.6% | 46 | 1.95:1 |
| 2 | Peptic ulcer disease (PUD) | 381 | 9.7% | 40 | 1:1 |
| 3 | Gastritis | 298 | 7.6% | 39 | 1:1.5 |
| 4 | Normal EGD | 165 | 4.2% | 35 | 1:1.4 |
| 5 | Portal Gastropathy (PG) | 22 | 0.5% | 34 | 1:1 |
| 6 | Mallory Weiss | 14 | 0.4% | 32 | 1:1.3 |
| 7 | Gastric Neoplasm | 11 | 0.3% | 45 | 1.4:1 |
| 8 | Fundal Varices (FV) | 10 | 0.3% | 42 | 1.3:1 |
| 9 | Esophageal Neoplasm | 10 | 0.3% | 49 | 1.8:1 |

***PP-651***

## *Impact of metabolic syndrome on histologic features in chronic Hepatitis B*

**Ala Ouni, Moufida Mahmoudi, Lamine Hamzaoui, Mohamed Mousadek Azzouz**

*Department of Gastroenterology, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia*

***Background/Aims:*** The metabolic syndrome is defined by the presence of 3 elements among android obesity, arterial hypertension, glucose intolerance or diabetes, and dyslipidemia. In the literature, the relation between metabolic syndrome and hepatitis B virus (HBV) infection remains inconclusive. The purpose of our work is to assess the impact of metabolic syndrome on the severity of liver disease.

***Materials and Methods:*** This is a retrospective study that took place in the gastroenterology department of Nabeul Hospital over a period of 11 years, including all patients with chronic hepatitis B HBe negative antigen with a viral load between 2000 and 20000 IU/mL and who had a liver biopsy puncture (LBP) to assess activity and liver fibrosis.

***Results:*** Ninety-nine patients were enrolled, with a mean age of 35 years and a slight female predominance (sex ratio W/M=1.2). The average body mass index (BMI) was 26.5 Kg/m$^2$. 33% of patients were overweight, 23% were obese, 7% had dyslipidemia, 4% had diabetes, and 3% were hypertensive. The LBP showed significant histological lesions defined by an activity score ≥A2 and / or fibrosis ≥F2 according to Metavir scoring system, in 14% of cases. Fasting glucose and triglyceride levels, and arterial hypertension were not independent predictive factors of significant histological lesions (p was 0.27, 0.47 and 0.24, respectively). In univariate analysis, "p" was close to the threshold of statistical significance with cholesterol and BMI (0.09 and 0.08, respectively). However, no association was found in multivariate analysis.

***Conclusion:*** In our study, metabolic syndrome was not associated with significant histological lesions, especially fibrosis and cirrhosis. This could be explained by the high prevalence of metabolic syndrome in our population regardless to histologic features.

***Keywords:*** Chronic hepatitis B, metabolic syndrom, liver biopsy

---

***PP-652***

## *New insights into gastric cancer and precision medicine*

**Irina Florina Cherciu Harbiyeli, Elena Tatiana Ivan, Irina Mihaela Cazacu, Adrian Saftoiu**

*Research Center of Gastroenterology and Hepatology Craiova, University of Medicine And Pharmacy Craiova, Romania*

***Background/Aims:*** During the last years, the recently introduced precision medicine has profoundly changed the therapeutic perspectives of several malignancies, with a decline of one size fit-all epoch. However, advances have been slow and difficult for gastric cancer (GC) which remains one of the most aggressive cancers and the third cause of cancer related deaths worldwide. The aim of our study was to critically overview the latest releases regarding the advances toward precision medicine in gastric cancer.

***Materials and Methods:*** A systematic literature search was carried out in three major databases which are as follows: PubMed, Scopus, and Web of Science covering the period January 2017-January 2019. The analysis was performed using the population intervention comparison outcome (PICO) format: In patients with gastric cancer (P) what does precision medicine (I) in comparison with current practices(C) brings new regarding patient management (O)? 12 studies were selected for advance screening and met all our inclusion criteria.

***Results:*** Overall, the studies have reported that: tumor specimens acquired by endoscopic biopsies should not only subject to clinical-histopathologic investigation but to genomic analysis; despite some significant innovations (patient-derived tumor

xenografts and organoids which constitute potent instruments for genetic studies, biomarker identification, drugs assessment and preclinical evaluation of patient strategies) the prognosis of patients with advanced GC continues to be overall poor and the present-day clinical application of the latest advances is disappointing; even more, some patients might be uselessly overtreated with adjuvant chemotherapy.

***Conclusion:*** Although up to date only 2 targeted molecular therapies, trastuzumab and ramucirumab, have been approved by the Food and Drug Administration, the new molecular classification of GC creates the proper framework for precision medicine. The recent advances in understanding the genomic and epigenomic levels of GC lays out a critical basis for designing further precision medicine clinical trials, providing the unique opportunity to develop novel targeted therapy and specific treatment strategies according to each subtype.

***Keywords:*** Gastric cancer, precision medicine

---

***PP-653***

## *The unruptured appendiceal mucocele: About 28 cases*

**Elatiq Sara[1], Mazine Khalid[2], Souadka Amine[1], Benjelloun Elbachir[2], Raouf Mohsine[1], Ait Taleb Khalid[2]**

*[1]National Institute of Oncology of Rabat, Rabat, Morocco*
*[2]University Hospital Hassan II, Fez, Morocco*

***Background/Aims:*** The appendiceal mucocele is a cystic dilatation of the appendix lumen by abnormal accumulation of mucous. The treatment is surgical; If untreated, it may rupture producing pseudomyxoma peritonei. The aim of this work is to report the different aspects of this disease and to specify the indications and the choice of the surgical treatment.

***Materials and Methods:*** It's a retrospective study of 28 cases of appendicular mucoceles collected at the "A" visceral surgery department of the CHU Hassan II, Fes; over a period from January 2013 to January 2019.

***Results:*** All patients were operated and the diagnosis of appendiceal mucocele was confirmed by anatomopathology. The average age of patients is 55.8 years; female predominance was noted (sex ratio of 1.5), The mode of revelation was: a pseudo-appendicular syndrome in 33.3% of cases, chronic abdominal pain in 13.3% of cases; and abdominal mass in 19.9% of cases and fortuitous discovery in 33.3% of patients. All patients had an abdominal ultrasonography and 20 of them had CT-scan. The diagnosis was suspected by the ultrasound exam in only one patient whereas abdominal CT was significantly more sensitive since it guided the diagnosis in 18 cases. All our patients were operated: 26 of them by laparotomy and two by laparoscopy. The surgical procedure consisted of a appendicectomy (60%), ileo-caecal resection (20%) and a right hemicolectomy (20%). Anatomopathology revealed a retention mucocele (73%); a mucinous cystadenoma (20%) and a mucinous cystadenocarcinoma (1 case). 24 patients had a good evolution, without recurrence or complication with a mean follow-up of 20 months.

***Conclusion:*** To avoid severe postoperative complications, it is necessary to have a good diagnosis before surgery which allows a good selection of surgical technique. The diagnosis should be evoked in cases of atypical appendicular syndrome or mass of the right iliac fossa in which abdominal CT-scan should be performed systematically.

***Keywords:*** Appendiceal mucocele, pseudomyxoma peritonei, abdominal CT-scan

---

***PP-654***

## *Rare locations of gastrointestinal stromal tumors*

**Moufida Mahmoudi, Ala Ouni, Lamine Hamzaoui, Mohamed Mousadek Azzouz**

*Department of Gastroenterology, Mohamed Taher Maamouri Hospital, Nabeul, Tunisia*

***Background/Aims:*** Gastrointestinal stromal tumors (GIST) are the most common mesenchymal tumors of the gastrointestinal tract. They occur most often in the stomach (50-70%) and the small intestine (20-30%). Other rare digestive and extradigestive localizations have been reported. This is a clinical review of rare GIST observed.

***Materials and Methods:*** We proceeded to a retrospective study collecting all in-patients with GIST in the gastroenterology department between 2008 and 2014.

***Results:*** Out of 47 identified GIST cases, the rectum was interested in 2 cases, the appendix in one case, the ovaries in 2 cases, the peritoneum in 3 cases. The mean age was 8 years (26 to 73 years). Abdominal pain was present in all patients; an abdominal mass was identified in 4 cases and gastrointestinal bleeding in 2 cases. The average tumor size was 4.8 cm (1 to 20 cm). Synchronous liver metastases were found in 4 cases. In the immunohistochemical study, CD117 was expressed in all cases. Surgical treatment was indicated in 6 patients. Imatinib was prescribed in 5 patients: for metastatic disease in 4 cases and neo-adjuvant in one case. A partial response with imatinib was observed in two cases. Five patients were monitored with a mean follow-up of 8 months (2 to 12 months).

***Conclusion:*** Rectal and appendicular GISTs as well as extra-digestive stromal tumors are rare mesenchymal tumors with the same immunohistochemical and molecular characteristics. The treatment of choice is surgical resection. However, tyrosine kinase inhibitors retain their place in adjuvant therapy and in metastatic forms.

***Keywords:*** Gastrointestinal stromal tumor

---

***PP-655***

## *Impact of cancer announcement on the dietary changes in Moroccan population during the first 2 years after cancer diagnosis*

**Souadka Amine, El Bahaoui Nezha, Amrani Laila, Majbar Mohammed Anass, Benkabbou Amine, Bougtab Abdesslam, Mohsine Raouf**

*National Institute of Oncology, Rabat, Morocco*

***Background/Aims:*** The diagnosis of cancer may encourage patients to change their dietary habits. Evidence on changes in dietary intake after cancer announcement is limited in Moroccan population. the aim of this study is to evaluate these changes before and after cancer diagnosis.

***Materials and Methods:*** Food intake frequency questionnaire was filled by a random population of cancer patients in order to evaluate the impact on dietary changes before and after the announcement of their cancer. Descriptive demographics and specific questions were added to the questionnaire in order to analyse the condition of these changes.

***Results:*** During the period 2014-2015, 85 patients agreed to answer the questionnaire. Fifty-four patients revealed a change in their dietary intake. Cancer diagnosis significantly increased the consumption of fruit and vegetables, fish and beans, however decreased the consumption of red meat, poultry, dairy and processed products and prepared meals. However only 24%of changes were in accordance with nutritionist recommendations.

***Conclusion:*** In Moroccan population, cancer diagnosis significantly impacts the dietary habits, it may be a stimulus for health-protective changes in cancer patients. however specific dietary intervention efforts should be targeting patients right after cancer announcement in order to reduce life-threatening consequences of inadapted dietary.

***Keywords:*** Dietary change, colorectal cancer, Moroccan patients

***PP-656***

## *Isolated pancreatic cyst hydatid disease*

**Ozan Cengiz[1], Soner Önem[1], Süleyman Dolu[1], Göksel Bengİ[1], Müjde Soytürk[1], Özgül Sağol[2]**

*[1]Department of Gastroenterology, Dokuz Eylül University School of Medicine, İzmir, Turkey*
*[2]Department of Pathology, Dokuz Eylül University School of Medicine, İzmir, Turkey*

***Introduction:*** Hydatid cyst which caused by Echinococcus granulosus parasite is usually seen in liver and lung, it can also be seen in any organ and soft tissue. In the literature, the incidence of isolated pancreatic hydatid cyst is reported as 1-2%. The complaints of the patients vary according to the size and location of the cyst. Ultrasonography and cross-sectional images show the cyst anatomically but it is insufficient to diagnose the hydatid cyst. Serological tests are not always helpful in diagnosis. In this case, we present a patient with pancreatic cyst on cross-sectional imaging and diagnosed as pancreatic hydatid cyst after endoscopic ultrasonography Fine Needle Aspiration (EUS-FNA).

***Case:*** A 61-year-old male patient who had epigastric pain for 6 months with no known disease history was referred to our clinic to perform EUS because his computerize tomography had showed a 3 cm cyst showing peripheral calcification in the tail section of the pancreas tail and findings consistent with chronic pancreatic. Laboratory tests of the patient were normal. A linear EUS examination showed a calcified, heterogeneous, irregularly circumscribed, hypoechoic lesion with a diameter of approximately 2x3 cm in the pancreatic corpus-tail section, and a fine needle aspiration biopsy (FNA) was performed from this lesion. Pathological examination revealed a fragment and calcification consistent with hydatid cyst lamella membrane. The patient who had no other organ involvement on imaging was diagnosed as isolated pancreatic hydatid cyst.

***Conclusion:*** It is often difficult to make a differential diagnosis of pancreatic cystic lesions. Hydatid cyst of the pancreas is often confused with cystic lesions of the pancreas. Ultrasonography and cross-sectional images show the cyst anatomically but not enough to diagnose the hydatid cyst. Serological tests are not always helpful in diagnosis. EUS-guided FNA increased the rate of diagnosis of hydatid cyst in the pancreas which is a rare involvement. This method shows up as an important diagnostic tool that prevents unnecessary surgical intervention. Although isolated pancreatic involvement of cyst hydatid disease is rare, it is an antithesis that should be kept in mind in the differential diagnosis with cystic lesions of the pancreas in the regions where the disease is common.

***Keywords:*** Hydatid cyst, pancreas involvement

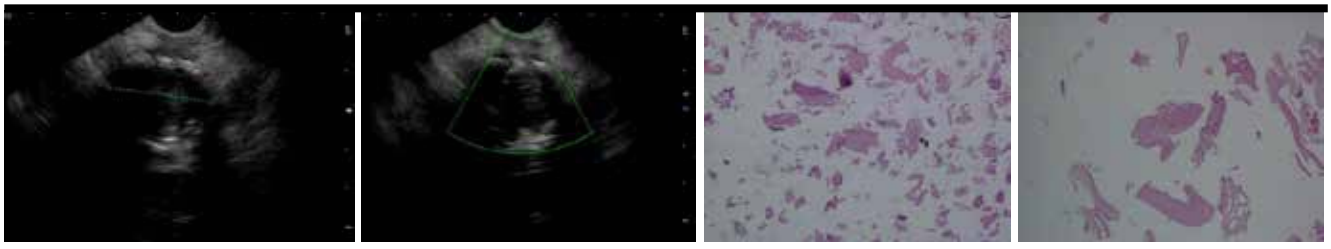


**Figure 1.** Lameller membrane compatible fragments of hydatic cist. Hematoxylin-Eosin X4 and x10.

***PP-657***

## *Gastric lymphoepithelial cyst: The use of endoscopic ultrasound-guided fine-needle aspiration in the diagnosis*

**Victor Fernando Yep Gamarra[1], Nelly Amaya[2], Augusto Aldave-Herrera[3], Carlos Rodriguez-Ulloa[4], Hector Calvo[3], Gustavo Florez-Trujillo[5]**

[1]*Department of Gastroenterology, Regional Hospital of Trujillo, Trujillo, Perú*
[2]*Advanced Endoscopy Unit, Clínica Peruano Americana, Trujillo, Perú*
[3]*National University Of Trujillo School of Medicine, Trujillo, Perú*
[4]*Hospital Central De La Fuerza Aérea Del Perú, Lima, Peru*
[5]*Instituto Regional De Enfemedades Neoplasicas-norte, Trujillo, Perú*

Subephitelial tumors (SET) had a low prevalence and are frequently detected in patients during cancer screening examinations. The literature mainly describes lesions as, leiomyoma, lipoma, pancreatic rest, carcinoid and gastrointestinal stromal tumor (GITS). We report a case of lymphoepithelial cyst of the stomach (LCS), a very rare cause of SET. A 37-year-old male with dyspepsia for two months, no other symptoms were reported. His physical examination was unremarkable. An endoscopy was performed, a SET was found in the antrum with 12 mm in diameter, wide base, with pink mucosa, irregular and with a small lateral hollow. A GIST tumor was suspected (Figure 1). A ultrasound endoscopy was used and revealed a heterogeneous lesion with 11 mm x 13 mm in diameter, with hypoechogenic areas, also small and multiloculated internal septa derivated from submucosae layer (Figure 2). A EUS-FNA was performed, two punctures were made, we used a 23 gauge needle. A yellow creamy aspirate was obtained, the cytology showed abundant anucleated squamous cells, also mature lymphocytes in a background of keratinaceous debris and a lack of neoplastic cells. The diagnosis of lymphoepithelial cyst of the stomach (LCS) was made with these cytological findings. The subephitelial tumors (SET) of the stomach are rare, 0.3% of healthy adults have this type of tumor and approximately 1% of patients who undergo to endoscopy. Only 15% are malignant at the time of diagnosis and 50% of the lesions correspond to GIST. The lymphoepithelial cyst is an extremely rare, benign, nonneoplastic lesion. Their morphological aspect and pathogenesis and hence classification is unclear. The data reported in the literature shown cases of lymphoepithelial cyst associated to the pancreas, but Delvaux in 1996 reported by the first time a lymphoepithelial cyst of the stomach and from the date to now no other case has been reported. Under the endoscopy SET less than 2 cm with "clinically malignant feature" as irregular border, hollow and tumorous ulcer; the guideline recommend examination with an endoscopy ultrasonography (EUS) and computed tomography. We decided to perform EUS because our patient has a lesion with irregular areas and a small hollow. Our findings showed a lesion from the submucosae, heterogeneous, with septa and hypoechogenic areas. According to the guidelines if in the EUS showed "high risk feature" as irregular border, internal heterogeneity including anechoic area (i.e. necrosis) and echogenic loci (i.e. bleeding), heterogeneous enhancement, a EUS-FNA must be performed. Our patient cytology had similar features than classically reported like anucleated squamous cells, mature lymphocytes in a background of keratinaceous debris, multinucleated giant cells, and a lack of neoplastic cells, giving us the diagnosis of lymphoepithelial cyst. The lymphoepithelial cyst of the stomach is a rare type of Subephitelial tumors. The prognosis is benign, and to date there have been no reported malignancies of these lesions.

***Keywords:*** Lymphoepithelial cyst, stomach, endoscopic ultrasound

**Figure 1.** SET in the antrum with 12 mm in diameter, wide base, with pink mucosa.

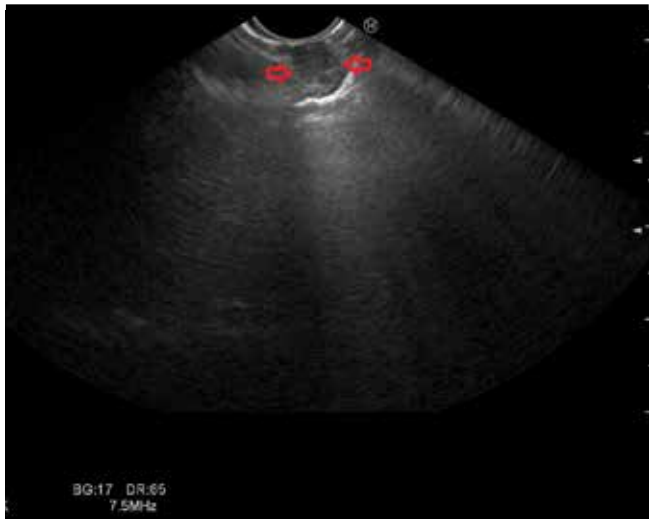



**Figure 2.** heterogeneous lesion with 11 mm x 13 mm in diameter, with hypoechogenic areas, also small and multiloculated internal septa.

***PP-658***

## *Predictors of adherence to cirrhosis care quality measures*

**Nizar Talaat[1], Faris Elkhidir[2], Ahmed Hamed[3], Hans Tillmann[3]**

*[1] Mayo Clinic, Minnesota, USA*
*[2] Cleveland Clinic, Ohio, USA*
*[3]East Carolina University, Greenville, NC, USA*

***Background/Aims:*** Adherence to practice guidelines and evidence based quality indicators to improve the care provided to patients with cirrhosis has been reported to be suboptimal. This could be due to the complexity of patients seen in the busy outpatient setting. We aim to determine the predictors for adherence to these quality indicators, namely esophageal varices (EV) screening, hepatocellular carcinoma (HCC) screening, hepatitis A & B (HAV, HBV) vaccination, achieving target heart rate for patients on beta blockers, hepatic encephalopathy (HE) management and liver transplant (LT) evaluation.

***Materials and Methods:*** Retrospective chart review of patients with cirrhosis seen in the gastroenterology (GI) clinic between 2011-2017. Clinical and laboratory data were collected. Cirrhosis was determined by histology, imaging, non-invasive laboratory testing, or clinical evidence of decompensation. We used multivariate logistic regression analysis to examine the association between patient or disease characteristics and adherence to quality indicators.

***Results:*** A total of 482 patients were eligible for the study. Table 1. Summarizes the baseline characteristics of patients. Majority of the patients (81%) are established in the practice with a mean follow up duration of 2 years. The most common cause of cirrhosis is alcohol (46%) followed by hepatitis C (36%). Majority of the patients (65%) had prior hepatic decompensation. Most of the patients underwent EGD screening for EV (83%) and imaging for HCC screening (88%). Less than half of the patients received vaccination against HAV (40%) and HBV (42%). Although majority of the patients had prior hepatic decompensation, only 39% of the patients were evaluated for liver transplantation. In multivariate logistic regression, a MELD score higher than 15 was a predictor for LT evaluation (OR 1.63; 95% CIs (1.13, 2.35)) regardless of age, sex or cause of liver cirrhosis. Decompensated cirrhosis was independently associated with OLT evaluation (OR 3.57; 95% CIs (2.26, 5.74)). There was no statistically significant difference in predictors of adherence to HCC and EV screening per guidelines identified in our sample.

***Conclusion:*** In our sample, a significant portion of patients seen in outpatient GI clinic had decompensated cirrhosis and liver transplant evaluation was more likely in this group of patients. However, majority did not receive prophylaxis against HAV or HBV. These findings represent an opportunity to improve the quality of outpatient care rendered to cirrhosis patients.

***Keywords:*** Cirrhosis care, liver transplant evaluation, hepatitis vaccination

***Table 1.*** Baseline Characteristics of Studied population

| | All patients (n=482) |
|---|---|
| Age* | 58±10 |
| Gender, Male | 272 (56) |
| New patients | 89 (19) |
| Follow up duration, months* | 24±15 |
| Race | |
| White | 260 (54) |
| Black | 170 (35) |
| Hispanic | 36 (8) |
| Other | 16 (3) |
| BMI≥30 | 212 (44) |

| | |
|---|---|
| Cause of cirrhosis | |
| ETOH | 220 (46) |
| HCV | 171 (36) |
| HBV | 10 (2.1) |
| NASH | 90 (19) |
| Other | 76 (16) |
| Method of cirrhosis diagnosis | |
| Histology | 69 (14) |
| Clinical | 54 (11) |
| Imaging | 303 (63) |
| Non-invasive method | 56 (12) |
| MELD Score* | 12±6 |
| Prior decompensation | 312 (65) |
| Ascites | 248 (52) |
| Hepatic encephalopathy | 190 (39) |
| Variceal bleeding | 87 (18) |

*Mean±SD

***PP-659***

## *Causes of primary hepatic malignancy in Arab Americans*

**Nizar Talaat[1], Faris Elkhidir[2]**

*[1]Mayo Clinic, Minnesota, USA*
*[2]Cleveland Clinic, Ohio, USA*

***Background/Aims:*** Arab Americans (ArAs) represent a unique population that might have primary liver cancer due to underlying chronic liver diseases not typically seen in non-Hispanic Whites Americans (NHWs). The aim of this study is to compare the characteristics of ArAs diagnosed with primary liver cancer compared to non-Hispanic Whites (NHWs).

***Materials and Methods:*** Retrospective chart review study of NHW and ArA patients diagnosed with primary liver cancer over a 10-year period in two hospitals located in high density ArAs community. A previously validated surname algorithm to identify ArAs patients was used. Cirrhosis was defined based on histology, imaging, or other invasive markers (AST-Platelet ratio index or FIB-4).

***Results:*** A total of 55 patients (22 ArAs and 33 NHWs) were included. More than half (59%) of the ArAs were born outside the U.S. NHWs had more biopsy proven malignancy (91% vs 64%, p=0.013). Majority of the patients in both cohorts had compensated cirrhosis (Table 1.). Viral etiology was identified in 46% of ArAs and 39% of NHWs (p=0.655). Among viral etiologies, hepatitis B was more prevalent in the ArAs group (23% vs 0%, p=0.004). Other etiologies of underlying liver disease were not significantly different between both groups (Table 1.). The disease burden did not differ significantly between both cohorts. However, a small percent (<5%) of patients in both cohorts underwent liver transplantation. Only 41% of the ArAs had regular follow up after diagnosis compared to 94% of NHWs (p<0.001). Among patients with follow up, 89% of the ArAs and 94% of the NHWs were deceased at 1 year.

***Conclusion:*** Arab Americans with primary hepatic cancer are more likely to be diagnosed by noninvasive methods and have a higher prevalence of hepatitis B compared to non-Hispanic whites. Additionally, they have poor follow up after diagnosis of cancer is given. This study highlights the importance of increasing awareness of diagnosing providers to ensure appropriate follow up of patients and early hepatitis B screening and treatment in this population.

***Keywords:*** Arab Americans, liver cancer, hepatitis B

***Table1.*** Summary of demographic and baseline characteristics

| Characteristic | ArAs (n=22) | NHW (n=33) | p |
|---|---|---|---|
| Demographics | | | |
| Men | 21 (96) | 27 (82) | 0.137 |
| ¥Age | 62±15 | 60±13 | 0.579 |
| Biopsy | 14 (64) | 30 (91) | 0.013 |
| Cirrhosis | 19 (86) | 28 (85) | 0.876 |
| Hepatic Decompensation | 8 (38) | 11 (36) | 0.848 |
| Underlying Liver disease | | | |
| Non-alcoholic steatohepatitis | 3 (14) | 3 (9) | 0.596 |
| Alcohol | 1 (5) | 6 (18) | 0.137 |
| Hepatitis C | 5 (23) | 13 (39) | 0.197 |
| Hepatitis B | 5 (23) | 0 (0) | 0.004 |
| Cholangiocarcinoma | 2 (9) | 5 (15) | 0.509 |
| Other | 6 (27) | 6 (18) | 0.424 |
| Beyond Milan Criteria | 10 (46) | 13 (39) | 0.437 |
| Malignancy Treated | 9 (41) | 22 (67) | 0.059 |
| Underwent Liver transplantation | 1 (4.5) | 1 (3) | 0.796 |
| Follow up after diagnosis | 9 (41) | 31 (94) | <0.001 |
| Deceased | 8 (36) | 29 (88) | <0.001 |

¥Mean±Standard deviation

***PP-660***

## *Bladder metastases: Unusual site of a primary cholangiocarcinoma*

**Sara Jamal[1], Fedoua Rouibaa[1], Ilyass El Alami[2], Rachid Tanz[2], Mohammed Ichou[2], Aziz Aourarh[1]**

*[1]Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V, Rabat, Morocco*
*[2]Department of Medical Oncology, The Military Training Hospital Mohammed V, Rabat, Morocco*

***Introduction:*** Cholangiocarcinomas are rare tumors that develop from the epithelium lining the bile ducts. Their incidence in the world is <1 per 100,000 people per year. The common metastatic sites of this biliary cancer are the liver, the peritoneum, the intra-abdominal lymph nodes and the lungs, but metastases of the bladder have never been described in the literature. The purpose of this work is to report an exceptional case of metastasis of the bladder in a patient with a Cholangiocarcinoma observed in a Moroccan department.

***Case:*** Here we present an exceptional case of a 60-year-old patient with Cholangiocarciome, who had received several surgeries and was admitted 2 years later to the emergency room for hematuria. Radiological explorations as well as a cystoscopy with trans-urethral resection confirmed the diagnosis of bladder metastasis of a Cholangiocarcinoma. Our patient was treated with hemostatic bladder radiotherapy followed by chemotherapy with Cisplatin and Gemcitabine (Cisplatin at a dose of 30 mg/m$^2$ and Gemcitabine at 1,000 mg/m$^2$ on days 1 and 8, respectively, every 3 weeks). A partial response was noted to the radiological imaging performed after the third cycle and stability after six cycles. Cholangiocarcinoma (CCA) is a rare but lethal cancer that comes from the intra-hepatic and extra-hepatic bile epithelium. It accounts for about 10% of all primary hepato-biliary malignancies and accounts for about 3% of all gastrointestinal cancers. CCA is a very aggressive disease of poor prognosis in the majority of patients with advanced stages of the disease. The most common mode of remote spread is through the lymphatics, lungs, adrenal glands and brain. These sites represent the most common areas of extra hepato-biliary propagation. However, metastatic bladder CCA remains exceptional.

***Conclusion:*** Cholangiocarcinomas are rare tumors; their metastases in the bladder are exceptional. This work reports the case of a patient with metastasis of the bladder of a cholangiocarcinoma. To our knowledge, this study was the first to describe this type of case. The prognosis for this type of cancer is extremely poor. However, our patient was successfully treated with a combination of chemotherapy with Gemcitabine-Cisplatin and hemostatic radiotherapy.

***Keywords:*** Cholangiocarcinoma, bladder metastasis, chemotherapy

***PP-661***

## *Low alanine aminotranferase (ALT) level predicts long term mortality in patients without liver disease*

**Derya Kayas[1], Betül Çavuşoğlu Türker[1], Süleyman Ahbab[1], Pınar Ziyadanoğlu[1], Fatih Türker[2], Hayriye Esra Ataoğlu[1]**

*[1]University of Health Sciences, Haseki Health Training and Research Hospital, İstanbul, Turkey*
*[2]İstanbul Bilim University, İstanbul, Turkey*

***Background/Aims:*** Serum ALT level is a laboratory parameter used in diagnosis and follow-up of patients. Destruction of the liver and the muscle is related with ALT elevation. Extremely reduced ALT levels may reflect process of aging and may be a significant clinical predictor of frailty of the elder population, moreover it may be related with increased mortality. Patients who had ALT levels greater than the average ALT level of the hospital which was measured to be 35 U/L, patients who had chronic liver disease and malignities were eliminated from the study.

***Materials and Methods:*** Four year mortality rates of 1164 patients older than 18 years old including 593 females and 571 who were hospitalized in internal medicine clinic were analyzed. Their comorbidites and their alanine aminotransferase (ALT), aspartate alanine aminotransferase (AST), gamma glutamyl transferase (GGT), alkaline phosphatase (ALP), hemoglobin (Hb), white blood cells (WBC), sedimentation, albumin, CRP level results were recorded using the data of the hospital.

***Results:*** 943 patients involved in the study who were comprised of 508 females and 435 males, were found out to have statistically significant increased 4-year mortality rate with the presence of chronic renal failure (CRF), congestive heart failure (CHF), coronary artery disease (CAD), chronic obstructive pulmonary disease (COPD), peripheric artery disease (PAD), cerebrovascular accident (CVA), connective tissue disease (CTD), hypertension (HT). It was seen that mortality risk increased with aging (as follows:57.10±18.06 72,92±13.29 p:0.001>). It was revealed that throughout the four year long follow up period, the patients who died had statistically significant low ALT values. (As follows: 16.22±7.50 14.79±7.30 p:0.003). Negative survival rates in patients with ALT levels lower than 9.5 U/L were detected. (p=0.007). It was seen that ALT levels lower than 9.5 U/L did not affect the survival rate in patients older than 65 years old. (p=0.489). It was demonstrated that in patients who were older than 65 years old the factor who affected mortality was advanced age. It was documented that in patients who were 65 years old or younger, ALT levels lower than 9.5 U/L increased the mortality rate independent of the patients' ages. (p=0.002)

***Conclusion:*** As the relationship between serum ALT levels of the patients and mortality rate were observed retrospectively, it was seen that in patients older than 65 years old, lower ALT levels were not significant. It was detected that actual mortality factor was advanced age in these patients. In patients younger than 65 years old, however, it was seen that low ALT levels caused statistically significant higher mortality rates independent of the age. Increased fragility risk is important in terms of mortality. In order to detect this parameter determining a biomarker is crucial. Low ALT levels indicate low muscle mass; therefore, it can not only be used as a biomarker for sarcopenia and fragility, but also may predict mortality.

***Keywords:*** Alanine aminotransferase, mortality, fragility

***PP-662***

## *Gastroscopy blitz: 127 scopes in 2 days*

**Ahmad A. Ali Abdelsalem, Ahamd Abdelsalem, Shiraaz Gabriel**

*Division of Gastroenterology, Tygerberg Hospital, Cape Town, South Africa*

***Background/Aims:*** The burden of gastroenterological diseases in South Africa is increasing. With this increased burden, comes increased challenges in service delivery and patient care. In October 2018, the waiting list for elective upper GI endoscopy was greater than 500 patients, which translated to a nine month waiting period. With this in mind, the Division of Gastroenterology at Tygerberg Hospital embarked on an upper GI endoscopy Blitz which took place over two days in an effort to decrease elective waiting times. This review sets out to describe the findings of the 2018 Tygerberg Gastroscopy Blitz which took place in December 2018.

***Materials and Methods:*** A retrospective data review and analysis of findings obtained from the 2018 Tygerberg Gastroscopy Blitz.

***Results:*** Our data included 125 patients. The mean age was 48 years (20-108) and female to male distribution was 92:33. The top three indications for endoscopy at Tygerberg Hospital BLITZ were: heartburn 35%, dyspepsia 28%, and abdominal pain 25%. The top 3 diagnosis on endoscopy: gastritis 46%, hiatus hernia 19%, and ulcer 6% and in 21% of the patient the endoscopy was normal. Biopsies were done in 20 patients; in 70% of the patients the result showed gastritis and in 7 of those the H pylori detected. In the rest of patients, 2 showed neoplasm, 1 lymphangiectasia, and 1 was normal.

***Conclusion:*** The patient centered, 2018 Tygerberg Gastroscopy Blitz was a successful initiative which reduced patient waiting times for elective upper GI endoscopy. It provided valuable information about our patient profiles, symptomatology and disease profiles. Most importantly, this Blitz highlighted the increase in gastroenterology disease burden in Cape Town and successfully addressed the needs of our patients over a short period of time.

***Keywords:*** 127 scopes, Tygerberg Hospital

---

***PP-663***

## *Can endoscopic ultrasound guided elastography predict of pancreatic adenocarcinoma?*

**Özlem Gül Utku[1], Bilal Ergül[1], Nesrin Turhan[2], Dilek Oğuz[1]**

*[1]Department of Gastroenterology, Kırıkkale University School of Medicine, Kırıkkale, Turkey*
*[2]Department of Pathology, Health Sciences University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Endoscopic ultrasound (EUS) guided elastography is thought to be a useful method for the evaluation of pancreatic lesions. The aim of our study was to determine the diagnostic value of EUS elastography in patients with PL.

***Materials and Methods:*** A retrospective study was performed at the Kırıkkale University Faculty of Medicine, Gastroenterology Department between April 2016 and July 2019. Patient information and EUS reports were obtained from the hospital information system. Strain ratio (SR) and elastography score were compared with histopathological results. Sensitivity and specificity for the detection of malignancy were calculated.

***Results:*** Six hundred seventy-five EUS examinations were analyzed. Forty-eight patients with PL (mean age, 60.46 years;58,33% (n:28) women) were included in the study. Pancreatic adenocarcinoma was diagnosed in 28 cases. In qualitative elastography, score 4 was most frequent (n=28, 84.8%) with sensitivity, specificity and accuracy of 89.9%, 60% and

81.1%, respectively, for predict adenocarcinoma. A strain ratio of 35 or higher (100% sensitivity, 66.7% specificity and 97.8% accuracy) predicts malignancy in PL.

***Conclusion:*** In patients with pancreatic lesions, EUS elastography can predict malignancy, especially in pancreatic adenocarcinoma.

***Keywords:*** Elastography score, endoscopic ultrasound guided elastography, pancreatic adenocarcinoma

---

***PP-664***

## *Intrahepatic cholestase as a paraneoplastic manifestation during Hodgkin lymphoma (LH)*

**Sara Jamal, Tarik Addajou, Sanaa Berrag, Fouad Nejjari, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I, The Military Training Hospital Mohammed V, Rabat, Morocco*

***Introduction:*** Intrahepatic cholestase as a paraneopaleatic manifestation is an unusual phenomenon during Hodgkin lymphoma (HL). Two entities may be responsible for this clinical picture: Vanishing Bile Duct Syndrome (VBDS) which corresponds to an acquired disorder characterized by progressive destruction and disappearance of the intrahepatic bile ducts, and cholestase idiopathic intrahepatic disease characterized by ducticular stase by an inflammatory infiltrat. This phenomenon poses both a diagnostic problem because it must be retained after eliminating all other causes of cholestase, and therapeutic because the decision and timing of treatment put the practitioner in a balance between hepato-toxocity of the chemotherapy and the progression of lymphomaism disease.

***Case:*** We report the case of a 71-year-old man with a clinical picture associating a cholestatic jaundice, pruritus with significant weight loss. The morphological checkup did not object to a bile barrier, and showed a magma of deep adenopathic diseases, whose scanno-guided lymph node biopsy concluded to the diagnosis of sclero-nodular Hodgkin lymphoma. The rest of the comprehensive cholestase checkup is negative, and liver biopsy done to eliminate lymphomatic infiltration of the liver objectified an idiopathic intrahepatic cholestase without ductopenia. A PET-scan was performed confirming the absence of lymphoma infiltration of the liver. The patient had benefited from 3 cycles of chemotherapy with low doses, with good clinical and biological improvement.

***Conclusion:*** We report an observation of idiopathic cholestase as a rare paraneoplasic phenomenon associated with reversible LH if the cancer responds to medical treatment.

***Keywords:*** Intrahepatic cholestase, paraneoplasic, Hodgkin lymphoma, Vanishing Bile Duct Syndrome (VBDS), cholestase idiopathic intrahepatic disease

---

***PP-665***

## *Diagnostic problem a patient with lymphadenitis tuberculosis and chylous ascites*

**Amie Vidyani, Iswan A Nusi, Poernomo Boedi Setiawan, Herry Purbayu, Titong Sugihartono, Ummi Maimunah, Ulfa Kholili**

*Division of Gastroenterology-Hepatology, Dr. Soetomo Academic Hospital, Airlangga University, Surabaya, Indonesia*

Tuberculosis is an important concern for doctor in tropical world. Extra Pulmonary Tuberculosis (EPTB) consists about 20% of all tuberculosis. It is very challenging the diagnosis of EPTB, because the sample obtained from relatively inaccessible sites. We reported a 20 year old male patient with lymphadenitis tuberculosis and chylous ascites. A 20 year old male patient with chief complain of abdominal enlargement for one month. He also complained decrease of appetite, night sweat, and decrease of body weight. We found lymphadenopathy at sinistra supraclavicula. The concistency of the lymph node are soft and without pain. We found abdominal ascites and edema at lower extremity. Laboratory examination showed anemia (Hb 10.1 g/dL), severe hypoalbuminemia

(1,7 mg/dL), 3 methode of HIV test are negative, and LDH level was normal (408 U/L), and serum ADA (adenosine deaminase was normal (13.4 U/L). Chest X ray was normal (no fibroinfiltrat). We performed open biopsy on the supraclavicula lymph nodes and the result was tuberculosis. Abdominal ultrasonography (US) showed multiple paraaorta lymphadenopathy suggesting malignant lymphoma and ascites. Abdominal CT scan with contrast showed malignant lymph adenopathy (malignant lymphoma) in paraaorta, paracaval, and para iliacal. We puncture the ascites fluid and found milky ascites (chylous ascites). We performed FNAB CT scan guide for paraaorta lympadenopathy and the results was impressing inflammatory sarcoma with differential diagnosis malignant lymphoma. The asciets fluid cytology was not founded malignant cell, and ascies fluid ADA levels was normal (5 U/L). Based on the clinical features of malignant lymphoma we started give chemotherapy for the patient, but the condition was not getting better. The condition of the patient was getting better after received antituberculosis drug and we stopped the chemotherapy.

***Keywords:*** Tuberculosis, ascites, chylous

---

***PP-666***

## *Clinical and therapeutic aspects of the pilonidal sinus in a moroccan population: A retrospective study about 234 cases*

**Sara Jamal, Fedoua Rouibaa, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I, The Military Training Hospital Mohammed V, Rabat, Morocco*

***Background/Aims:*** Pilonidal disease is a common condition, occurring primarily in adolescents and young adults. It is a pseudo-cystic cavity containing hairs, often sitting in the sacro-coccygeal region. His treatment is surgical.

***Materials and Methods:*** This is a retrospective study about 234 patients operated for pilonidal sinus, in a period of 9 years, rom January 2009 and January 2018.

***Results:*** The frequency of the pilonidal sinus is estimated at 5.8% in 4 place of proctological affections. The average age was 23 years (16-30 years) with a male predominance 91.6%. Purulent or sero-bloody discharge is the most common reason for consultation, 90% have continuous or intermittent oozing. The pain mentioned in 26% of cases. The notion of pruritus of the furrow-intergluteused found in 8%. The diagnosis of the pilonidal sinus was easy and strictly clinical. 174 patients underwent excision left in a directed scar; they form group A. group B comprises 38 cases having undergone excision primary medial suture; finally, group C includes 20 cases in which excision and closure with plastid procedures were performed as well as two patients having benefited from the Karydakis method. The duration of hospitalization was higher in case of closed technique. Post-operative complications were more frequent in groups B and C. Recurrences are less important for group C (4.5%) and group A (8.6%) than group B (13.6%).

***Conclusion:*** The pilonidal sinus is a frequent affection; unknown by gastroenterologists, and whose diagnosis is purely clinical. The treatment is surgical; and the most appropriate technique considering the duration of healing and the rate of recurrence; seems to be excision with plasty.

***Keywords:*** Pilonidal sinus, frequent, surgical treatment, appropriate technique, rate of recurrence

---

***PP-667***

## *Risk factors and effect of liver fibrosis of non-alcoholic fatty liver disease (NAFLD) during chronic viral hepatitis B in a Moroccan population*

**Sara Jamal, Fedoua Rouibaa, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I, The Military Training Hospital Mohammed V, Rabat, Morocco*

***Background/Aims:*** Non-Alcoholic Fatty Liver Disease (NAFLD), long considered a common lesion during chronic viral hepatitis C, has not been adequately studied during chronic hepatitis B. The objective of our work was to determine the prevalence and various factors associated with steatosis during chronic hepatitis B and to investigate a relationship between steatosis and liver fibrosis.

***Materials and Methods:*** This is a retrospective study collected in the Department of Hepatology and Gastroenterology I of the Military Training Mohammed V of Rabat, in Morocco, in a period of 4 years, from September 2015 to January 2019, including 149 patients with viral hepatitis B chronic and having benefited from a liver biopsy puncture during their follow-up. A rereading of all the blades was re-read by the same anatomopathologist to determine the presence or not of hepatic steatosis, its degree and its type.

***Results:*** Our study showed a male predominance (117 men and 32 women) or a sex ratio to 1.5. In 57 of 149 patients, liver biopsy puncture had objectified liver steatosis. The average age of patients with hepatic steatosis was 30 years. Liver steatosis was low in 29 patients, moderate in 20 cases and severe in 8 patients. The Body Mass Index (BMI) was very important in patients with liver steatosis reaching 31 kg/m2. The biological check-up in patients with hepatic steatosis showed high cholesterol in 23 patients and hyperglycemia in 9 cases, as opposed to the normal patient group without hepatic steatosis at PBF. Predictors of liver steatosis in patients with chronic viral liver B are represented by BMI, high cholesterol and hyperglycemia.

***Conclusion:*** Non-Alcoholic Fatty Liver Disease is a common lesion in patients with chronic viral hepatitis B. Factors related to the onset of hepatic steatosis during chronic hepatitis B are Body Mass Index and metabolic factors. NAFLD does not appear to influence the progression of liver fibrosis, according to data from our study.

***Keywords:*** Non-alcoholic fatty liver disease (NAFLD), chronic viral hepatitis B, liver fibrosis, prevalence of fibrosis, associated factors

---

***PP-668***

## *Efficacy of thalidomide in the management of recurrent digestive hemorrhage: About a case and a review of literature*

**Sara Jamal, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I, The Military Training Hospital Mohammed V, Rabat, Morocco*

***Introduction:*** Angiodysplasia is currently considered one of the most common causes of occult digestive bleeding in the elderly and hemodialysis. The treatment of endoscopic hemostasis is usually offered first-line most often by clotting with argon plasma or bipolar electrocoagulation. In the event of frequent recurrences despite appropriate endoscopic treatment, systemic thalidomide medical therapy may be offered as a complementary treatment. The objective of our case is to report the efficacy of Thalidomide in refractory digestive bleeding due to gastrointestinal angiodysplasia in the case of a chronic hemodialysis patient.

***Case:*** This is a 74-year-old woman, chronically hemodialysis, admitted for management of a melena. A high gastrointestinal endoscopy and colonoscopy showed diffuse angiodysplasia involving the entire digestive tract. The small intestine was explored by high and low double balloon enteroscopy. Despite several sessions of argon clotting, the digestive hemorrhage is persistent and requires several transfusions. Treatment with thalidomide at 100 mg/day was initiated after the patients informed consent and elimination of contraindications of this medication. After 4 months of treatment, gastrointestinal bleeding was controlled, and the patient remained stable over the past 12 months during follow-up.

***Conclusion:*** Bleeding due to angiodysplastic lesions of the digestive tract is commonly observed in hemodialysis patients and is responsible of a significant morbidity and mortality. This clinical case illustrates the possible use of Thalidomide as an effective therapeutic option in hemodialysis patients to control recurrent gastrointestinal bleeding by angiodysplies.

***Keywords:*** Angiodysplastic lesions, bleeding, reccurent digestive hemorrhage, Thalidomide, efficacy

***PP-669***

## *Safety and efficacy in water exchange colonoscopy: An experience in a non-academic setting*

**Fernando Contreras, Jose Adolfo Duran, Emilio Socias, Cynthia Contreras, Paola Contreras**

*Centro De Gastroenterologia Avanzada, Santa Domingo, Dominican Rebuplic*

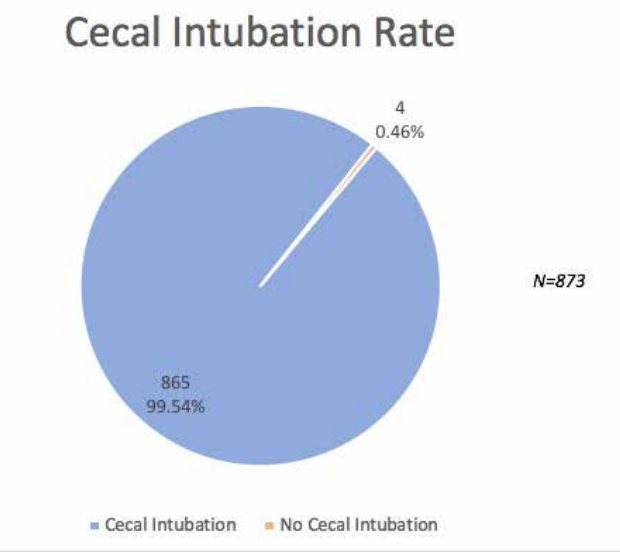
***Background/Aims:*** Colonoscopy is the gold standard of colorectal cancer screening. Different techniques have been used for cecal intubation, from which water exchange technique is associated with a higher cecal intubation rate, less discomfort from the patient, and higher adenoma/polyp detection rate particularly in proximal colon, which makes of it a preferred method for screening. There is no data in the Dominican Republic related to water exchange colonoscopy and its advantages. This study aims to analyze cecal intubation rate, cecal intubation time, terminal ileum intubation rate, withdrawal time, adenoma detection rate, complications and willingness to repeat the study regarding water exchange colonoscopies.

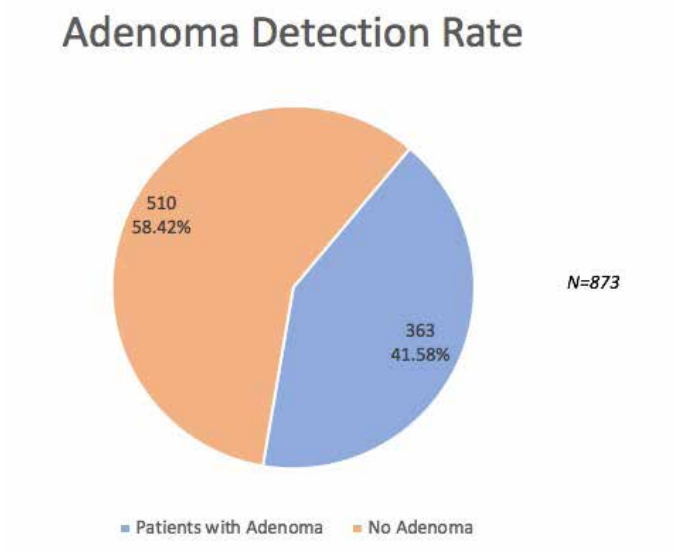
***Materials and Methods:*** A descriptive observational study was used. Population: 873 patients who underwent water exchange colonoscopy under Propofol sedation in a private medical facility in the Dominican Republic.

***Results:*** Cecal intubation rate: 99.54%; cecal intubation time: 7.5 minutes average; terminal ileum intubation rate: 99.06%, cecum: 0.47%, sigmoid colon: 0.47%; withdrawal time: 16.5 minutes average (7 minutes average in normal colonoscopies); adenoma detection rate: 41.58% (32.65% proximal colon, 19.47% distal colon); complications: 0%; willingness to repeat colonoscopy: 100%.

***Conclusion:*** The approximate value of cecal intubation rate, cecal intubation time, terminal ileum intubation rate, adenoma/polyp detection rate, and willingness to repeat the study were adequate for the standards of colonoscopies. There were no complications during the colonoscopies. This means that this technique is safe, efficient, accurate, and may have an increased adenoma/polyp detection rate. The benefits are considerably high regarding colorectal cancer screening and patient's attachment to follow-up.

***Keywords:*** Water exchange colonoscopy, adenoma/polyp detection rate, cecal intubation



***PP-670***

## *Linked color imaging (LCI) application increases adenoma/polyp detection rate compared to white-light imaging*

**Fernando Contreras, Jose Adolfo Duran, Emilio Socias, Cynthia Contreras, Paola Contreras**

*Centro De Gastroenterologia Avanzada, Santa Domingo, Dominican Republic*

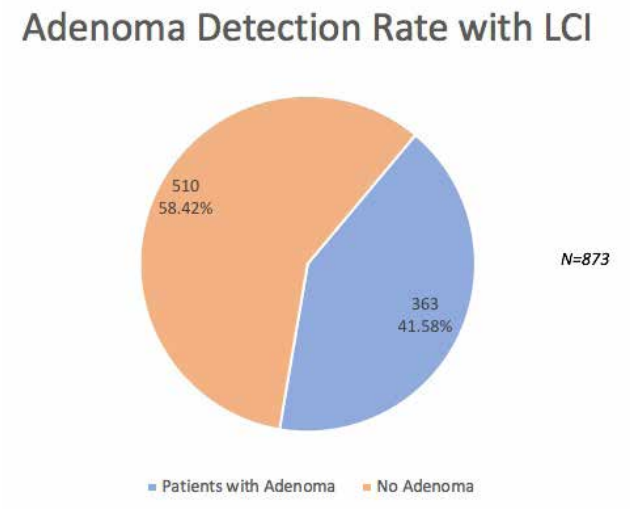
***Background/Aims:*** Linked color imaging (LCI) enhances information of the mucosal superficial pattern and microvasculature combining the information acquired by white-light imaging and narrow band imaging in appropriate balance. This novel image-enhanced endoscopy may help the endoscopist to detect challenging colon lesions by making the reddish mucosa redder in color, while a whitish mucosa whiter in color, creating a highly contrasted image without decreasing light intensity. There is no study in the Dominican Republic that evaluates LCI usage compared to White-light imaging (WLI). This study aims to assess the ability of LCI to improve adenoma/polyp detection rate compared to the traditional WL endoscopy.

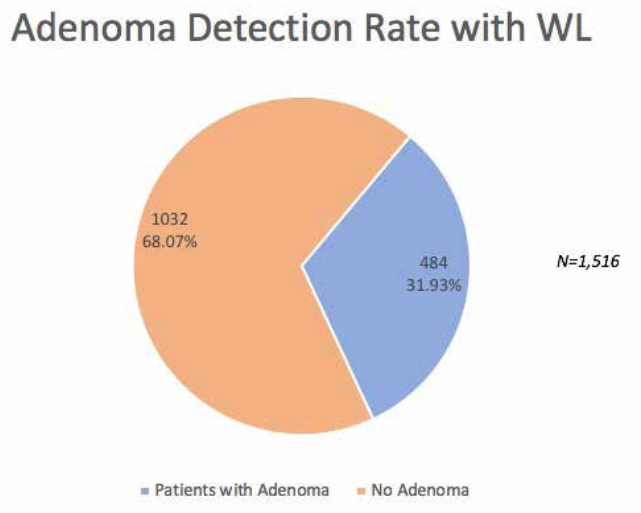
***Materials and Methods:*** A descriptive observational study was used. Population: 2,389 patients who underwent water exchange colonoscopy in a private medical facility in the Dominican Republic. LCI was used in 873 patients, while WL was used in 1,156 patients.

***Results:*** Adenoma detection rate with LCI (873 patients): 41.58% (32.65% proximal, 19.47% distal), for WLI (1,516 patients): adenoma detection rate was 31.93%. Non-adenomatous polyp detection rate with LCI was 31.84% (20.85% proximal, 16,27% distal), for WLI: non-adenomatous polyp detection rate was 20.65%. Regarding LCI: serrated polyp detection rate was 9.85% (9.27% proximal, 1.72% distal); hyperplastic polyp detection rate was 21.99% (11.00% proximal, 14.55% distal).

***Conclusion:*** The adenoma detection rate using LCI technology was notably higher than with WLI. This was also true for non-adenomatous polyps. This means that LCI may be a better technology regarding adenoma/polyp detection rate, improving colorectal cancer screening with colonoscopy.

***Keywords:*** Linked color imaging, white-light imaging, adenoma/polyp detection rate



***PP-671***

## *Prevalence of non-alcoholic fatty liver disease among warfarin users*

**Ahmet Cumhur Dülger[1], Mustafa Yakarışık[1], Raziye Turan[2]**

*[1]Division of Gastroenterology, Giresun University School of Medicine, Giresun, Turkey*
*[2]Division of Intensive Care, Giresun University School of Medicine, Giresun, Turkey*

***Background/Aims:*** Cross-sectional studies in patients who were taking oral anticoagulants have reported a higher prevalence of elevated liver enzymes compared to the newer non-vitamin K oral anticoagulants suggesting warfarin use may have a positive influence on the natural history of non-alcoholic fatty liver disease (NAFLD). Thus, we conducted a retrospective study to search whether use of warfarin was associated ultrasonographically diagnosed NAFLD.

***Materials and Methods:*** A retrospective review was performed to identify warfarin users who had at least two visits in our clinic. Thus, 51 consecutive patients (the mean age was 66.5±9.8 years; 31 were female) with warfarin use was longitudinally screened for NAFLD which were diagnosed according to ultrasonographic criteria. Among 51 patients, 28 had atrial fibrillation and 23 had prior mitral valve replacement theraphy. Control subjects (65 subjects, mean age was 68±3.4 years; 35 of them were female) were selected from age-matched eldely subjects without warfarin use. Data were presented as the mean value and standard deviation.

***Results:*** In warfarin group, the rate of ultrasonographically diagnosed NAFLD was 39%. At diagnosis, the median glucose was 128±45 mg/dL, ALT was 28±64 U/L, AST was 27±38, ALP was 104±76 U/L, GGT was 58±101 U/L and albumin was 4.28±0.59 mg/dL, HbA1C was 6.1±1.08 and INR was 2.65±0.6. In age-matched control group, the rate of ultrasonograpy-proven NAFLD was only 19%. At diagnosis, the median glucose was 133±75 mg/dL, ALT was 20±12 U/L, AST was 23±8.8 U/L, ALP was 84.76±39 U/L, GGT was 25.6±31.8 U/L and albumin was 4.6±0.82 mg/dL, HbA1C was 6.2±0.58 and INR was 1.1±0.4. There were significantly differences between groups in terms of AST, ALT, ALP, and GGT (all $p<0.05$; respectively). Importantly, cardiometabolic risk markers such as triglycerides, LDL-C, HDL-C and HbA1C levels were not statistically significant between groups (all $p>0.005$). No differences were found regarding patient characteristics or prevalence of diabetes mellitus between groups (12% versus 16%; $p>0.005$).

***Conclusion:*** Warfarin use should be included in the differential diagnosis of NAFLD at the time of disease onset. Our findings should be validated in a prospective study in a larger patient population. This study was dedicated to Turkish infantry major Zafer Akkush who died in a combat in eastern part of Turkey.

***Keywords:*** Warfarin, hepatic steatosis

***PP-672***

## *A comparison of sensitivity and specificity of transient elastography I.E. fibro scan with serum aminotransferase levels I.E. ALT & AST in chronic HCV infected patients, a retro prospective cross sectional study at Lahore General Hospital, Lahore, Pakistan*

Syed M. Aqib

*Lahore General Hospital, Lahore, Pakistan*

***Background/Aims:*** To assess the validity of Serum Aminotransferase Levels i.e. ALT & AST as fibrosis biomarker, we compared their serum levels with fibro scan for the fibrosis staging and predicting its progression in Pakistani population.

***Materials and Methods:*** The retroprospective cross sectional study was conducted in medicine unit 1&2 and hepatitis clinic of Lahore General Hospital, Lahore starting from February 15, 2018 to January 11, 2019. We studied 1181 HCV infected patients which were got CBC, LFTs, ELISA, PCR and fibro scan done to perfectly diagnose ongoing hepatitis C infection. In order to differentiate HCV fibrosis progression, we compared the effectiveness of readily available serum aminotransferase Levels i.e. ALT & AST with fibro scan.

***Results:*** An AST had sensitivity of 82.6 and specificity of 79.0 for F4 stage. with AUC=0.883. An ALT for F4 stage, the sensitivity was 57.3, specificity 50.0 with AUC=0.771.

***Conclusion:*** An AST and ALT can predict advance stage of fibrosis and cirrhosis in patients with chronic hepatitis C infection. In these patients, a liver biopsy and fibro scan may not be necessary.

***Keywords:*** Hepatitis C, blood platelets, fibro scan score

---

***PP-673***

## *Hepatobiliary involvement in patients with inflammatory bowel disease*

Fidan Nasrullayeva, Hale Akpınar, Göksel Bengi

*Department of Gastroenterology, Dokuz Eylül University School Of Medicine, İzmir, Turkey*

***Background/Aims:*** Diseases of the liver and biliary tract are common extraintestinal manifestations of inflammatory bowel disease (IBD). In this study, we aimed to investigate the prevalence of abnormal liver function tests (LFTs) and hepatobiliary involvement of patients with IBD in Dokuz Eylul University Medical Faculty Hospital.

***Materials and Methods:*** In this study, between January 2015 and December 2017 in Dokuz Eylul University Medical Faculty Hospital, Gastroenterology Outpatient Clinic, 470 patients'data aged ≥18 years with the diagnosis of IBD (260 males, 210 females, mean age: 44.45±12.71, 264 with Crohn's disease-CD, 201 with ulcerative colitis-UC) were evaluated retrospectively. Liver function tests, hepatitis B, C markers, auto-immune markers (ANA, AMA, ASMA, LKMA, celiac antibody (anti-transglutaminase IgA), hepatobiliary imaging studies (USG, CT, MRI), hepatobiliary diseases were screened. Patients whose CRP levels ≥5 mg/dL were accepted as with active disease.

***Results:*** Abnormal liver function tests (LFTs) were detected in 80 (17.5%) of 458 patients with IBD (20.4% in CD, 13.6% in UC; p=0.060). The prevalence of abnormal LFTs was higher in active IBD patients compared to IBD patients with remission (24.4% vs 10.8%, p=0.000). HBsAg and anti HBs was positive in 9 of 229 (3.9%) and in 92 of 221 patients (41.6%) respectively while total anti-HBc was found to be positive in 38 of 182 patients (20.9%). Anti-HCV couldn't be found positive in 216 patients with IBD. ANA (71.8%, n=110), AMA (96.6%, n=88), ASMA (98.9%, n=87), LKMA (100%, n=87) and p-ANCA (72%,

n=82) were found to be negative. 3 celiac patients were diagnosed. Of the 369 patients with abdominal imaging from 470 patients with IBD, 225 (61% total, 65.9% in CD, 52.6% in UC, p=0.011) had a finding and/or disease of the hepatobiliary system manifestation. The prevalence of cholelithiasis was 10.1% (10.8% in CD vs 8.8% in UC, p=0.539) while hepatosteatosis was found to be 38.1% (38.5% in CD vs 37.5%, p=0.845) in patients with IBD. PSC was detected in 5 patients (3 UC, 2 CDH).

***Conclusion:*** Our data suggest that liver function tests and hepatobiliary imaging regularly should be followed to patients with IBD even in the absence of symptoms.

***Keywords:*** Hepatobiliary manifestation, inflammatory bowel disease, abnormal liver function tests

---

***PP-674***

## *Gastric mantle cell lymphoma*

**Vedat Goral, Ferhat Özden**

*Department of Pathology, İstanbul Medipol University, İstanbul, Turkey*

***Introduction:*** Mantle cell lymphoma represents 2.5–7% all of non Hodgkins lymphomas. Stomach is the most common site of extranodal lymphoma. Mantle cell lymphoma has a very poor prognosis.

***Case:*** A 57-year-old male patient was admitted to our hospital with epigastric pain and some gastric complaints. He was treated with chemotherapy for 6 months due to Burkitts lymphoma. Control tomography revealed a thickening of the gastric wall. At the endoscopic examination, fundus, cardia, corpus and antrum mucosa were erythematous, ulcerated, edematous and irregular. Also, at the endoscopic examnination of stomach in two separate locations, 1.5 cm and 2.5 cm in size were seen. A similar lesion, more than 1 cm in diameter, was found near the fundus. For histopathological examination, biopsies were taken from the antrum and corpus mucosa. In addition, 2 lesions were found in the duodenal bulb, which were soft, medium hardness, adjacent, and 2 biopsies were taken from the this lesions. Pathological diagnosis was mantle cell lymphoma in the stomach. No biopsy-containing 15BBA was detected in the biopsies samples. However, 1 BBA had 0-1 mitosis. At the antral gastric biopsy there were active gastritis, foveolar hyperplasia and foveolar epithelial hyperplasia. Intestinal metaplasia and H. pylori were not detected. At the immunohistochemical examination, CD5: positive, positive in CD3: reactive T lymphocytes, CD20: positive, CD23: positive in follicular dendritic cell media, Cyclin D1: positive, CD10: positive, Bcl2: positive, Bcl6: positive, Sox11: positive, Ki67 proliferation index: 30%. The patient had sent to the medical oncology department for treatment.

***Keywords:*** Gastric mantle lymphoma, endoscopy

---

***PP-675***

## *Rectal non-Hodgkin's lymphoma presented as ulcerative proctitis: A case report*

**Esin Özkan, Metin Başaranoğlu**

*Bezmialem Vakıf University School of Medicine, İstanbul, Turkey*

Non-Hodgkin's lymphomas are malignant tumors of lymphatic system, characterized by extranodal involvement. Primary rectal lymphoma is rare, accounting for only%0.1-0.6 of colorectal malignancies. Here we report a case of non-Hodgkin's extranodal marginal zone lymphoma (MALT) in rectum. In 2015, a 25-year-old female admitted to our hospital with abdominal pain, rectal bleeding, alternating diarrhea and constipation. Colonoscopy verified the preliminary diagnosis ulcerative proctitis and it was treated. The biopsy specimens were examined and the patient was diagnosed with Stage 2A B-cell non-Hod-

gkin extranodal marginal zone lymphoma (MALT). The results of immunohistochemical staining were; CD20(+), CD23(+), CD43(+), IgM(+), Bcl-2(+), CD10(-), Cyclin D1(-) and Ki67=%20. The patient received CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisone) chemotherapy. After second session of CHOP, a repeated PET scan assessed partial metabolic progression in rectum. Bone marrow biopsy showed no malignant infiltration. CHOP treatment was finished after 6th session. At the end of the treatment, colonoscopy was repeated and signs of recovery were found in the rectum mucosa. In the 7th year of her disease, the patient achieved a full remission. She is still taking Mesalazine pills (3g/day) and suppository (2x500mg). Primary rectal lymphoma is a rare condition. It is generally seen in men older than 50 years old. The main clinical manifestations are abdominal pain, rectal bleeding and changing in bowel habits. Colonoscopy with biopsy and computerized tomography (CT) are valuable tests for diagnosis. CHOP chemotherapy is the first line therapy in disease management. In our case a 25-year-old female came to the clinic with rectal bleeding. Colonoscopy with biopsy was performed. The patient was diagnosed with non-Hodgkin rectal lymphoma. Remission was sustained after CHOP therapy. To conclude rare pathologies such as rectal lymphoma must be kept in mind in differential diagnosis of inflammatory bowel disease, like ulcerative proctitis.

***Keywords:*** Ulcerative proctitis, non-Hodgkin lymphoma, rectal MALT lymphoma

---

***PP-676***

## *Crohn's case: Recurrent 'gloves and socks' distribution with bullous eruptions after adalimumab and infliximab treatment*

**Esin Özkan, Metin Başaranoğlu**

*Bezmialem Vakıf University School of Medicine, İstanbul, Turkey*

Crohn's disease (CD) is an inflammatory bowel disease, which can develop in any part of the gastrointestinal tract. Its underlying cause is not fully understood, yet it has a genetic ground and autoimmunity plays a role in the pathogenesis. Anti-TNF (tumor necrosis factor) drugs as biologic agents are used in severe cases or for patients, who do not respond to classic treatment. In our case a young female patient with CD was described with glove sign in her hands and recurrent bullous skin reactions due to biologics. An 18-year-old female patient attended to our hospital with diarrhea and recurrent abdominal pain. After her examination she was diagnosed with Crohn's ileocolitis. Perianal fistula and abscess were established and treated. Adalimumab was chosen as biologic agent for active luminal disease. After two doses allergic reactions develop in her skin. Adalimumab was seponated and with anti-allergic drugs her skin went back to normal. The patient was not put at risk and another anti-TNF, infliximab, started. The glove sign was recurred after the first dose. The adverse effects were treated again. Anti-TNF therapy has changed the paradigm of treatment in inflammatory bowel diseases, especially in Crohn's. They promise better course of disease and more effective healing. Skin reactions are not rare in patients receiving anti-TNF drugs. However, 'gloves and socks' distribution with bullous eruption has not been reported before in English literature to the best of our knowledge. Here we presented a 18-year-old female patient with severe Crohn's ileocolitis accompanied by perianal abscess and fistula. After adalimumab and infliximab treatment, recurrent glove sign with bullous eruption was described. Other than the common side effects of the skin, 'Gloves and socks' sign must be kept in mind, if the patient uses anti-TNF drugs.

***Keywords:*** Crohns disease, anti-TNF, glove sign

---

***PP-677***

## *Determination of hepatitis C genotype types in thrace and comparison of data in Turkey*

**İsmail Acar[1], Betül Ersöz Acar[2]**

*[1]Trakya University School of Medicine, Edirne, Turkey*
*[2]Edirne Sultan 1. Murat State Hospital, Edirne, Turkey*

***Background/Aims:*** There are over 200 million Hepatitis C infected individuals worldwide, and estimated 71 million people have chronic hepatitis c infection. Six main genotypes and 70 subtypes have been identified. Geographical differences play an important role in HCV genotype distribution. Determination of hepatitis C virus genotype is critical in the treatment and eradication of chronic hepatitis c infection.

***Materials and Methods:*** Genotypes of 75 patients (45 female, 30 male) who were followed due to chronic hepatitis c infection were examined from hospital electronic system and patient files. A total of 24 clinical trials data conducted in Turkey between the years 2007-2018 were analyzed (3892 patients). Studies were separated by geographical regions in Turkey and compared with our data.

***Results:*** The most common genotype is type 1b(%75) in Turkey. Then respectively genotype type 1a (9.3%), 3 (5.4%), 2 (3%) and 4 (2.6%). In our study, genotype 1 (subtip 1b 86.1% and 1a 13.8%) was found with the highest rate of 86.6%. Genotype 3 (6.6%), genotype 4 (5.3%) and genotype 2 (1.3%) were determined. The majority of patients were female (60%) and over 60 years (56%).

| Geographical regions | Patients (n) | Genotype(G)% 1a | 1b | 1 (other) | G2% | G3% | G4% | G5% | G6% |
|---|---|---|---|---|---|---|---|---|---|
| Thrace | 75 | 9 | 56 | | 1 | 5 | 4 | | |
| Mediterranean | 1464 | 7.7 | 69.5 | | 4.7 | 15.8 | 1.6 | 0.8 | 0.4 |
| Antalya | 422 | 14.7 | 63.3 | 5.4 | 3.5 | 11.1 | 1.6 | | |
| Adana (4) | 119 | 12.6 | 58.8 | | 7.6 | 16.8 | 3.4 | 0.8 | |
| Mersin (5) | 236 | 1.7 | 84.7 | 5.9 | 2.1 | 4.2 | 0.8 | | 0.4 |
| Hatay (6) | 324 | 1.9 | 71.2 | | 9.2 | 0.9 | 1.7 | | |
| K.maraş (7) | 313 | | | 51.7 | 1.2 | 46 | 0.9 | | |
| Aegean | 520 | 9.9 | 88.6 | | 1.3 | 0.9 | 5.1 | | |
| İzmir (8) | 345 | 9.9 | 87.2 | | 0.9 | 1.4 | 1.6 | | |
| Manisa (9) | 100 | | 90 | 2 | 2 | | 5 | | |
| Aydın (10) | 41 | | | 90.2 | 2.4 | 2.4 | 4.9 | | |
| Afyon (11) | 34 | | | 91.1 | | | 8.9 | | |
| Marmara | 785 | 22.9 | 56.5 | | 0.4 | 10.4 | 1.8 | | |
| İstanbul (12) | 554 | 22.9 | 56.5 | | 0.5 | 16.9 | 0.5 | | |
| Bursa (13) | 231 | | | 92.6 | 0.4 | 3.9 | 3.1 | | |
| Central Anatolia | 207 | 2.4 | 53.0 | | 4.8 | 0.6 | 8.9 | | |
| Konya (14) | 80 | | 100 | | | | | | |
| Kayseri (15) | 375 | 2.4 | 57.6 | | 3.2 | 1.1 | 32 | | |
| Eskişehir(16) | 203 | 2.4 | 17.7 | 74.4 | 1.5 | 2 | 2 | | |
| Nevşehir (17) | 170 | | 37 | 45.1 | 14.5 | 1.2 | 1.6 | | |
| Black Sea | 425 | 9.5 | 84.8 | | 1.3 | 2.0 | 0.2 | | |
| Doğu Karadeniz (18) | 304 | 5.3 | 87.5 | | 1.6 | 4.9 | 0.7 | | |
| Zonguldak (19) | 39 | 2.6 | 97.4 | | | | | | |
| Amasya (20) | 82 | 20.7 | 69.5 | 6.1 | 2.4 | 1.2 | | | |
| Southeastern Anatolia | 351 | 2.8 | 85.8 | | 6.4 | 2.7 | 0.9 | | |
| Diyarbakır (21) | 74 | | 87.8 | 4.1 | 2.7 | 5.4 | | | |
| Gaziantep (22) | 160 | | 98.0 | | 0.7 | 1.2 | | | |
| Adıyaman (23) | 71 | 8.4 | 71.8 | 4.2 | 11.2 | 4.2 | | | |
| Sanlıurfa (24) | 46 | | | 85.2 | 11.1 | | 3.7 | | |
| Eastern Anatolia | 140 | 10.1 | 86.9 | | 2.1 | 5.6 | | | |
| Erzurum (25) | 69 | 10.1 | 86.9 | | 1.4 | 1.4 | | | |
| Elazıg (26) | 71 | | | 87.3 | 2.8 | 9.8 | | | |
| Total | 3892 | 9.3 | 75.0 | | 3.0 | 5.4 | 2.6 | 0.1 | 0.1 |

***Conclusion:*** Hepatitis C virus genotype distribution in Thrace and Turkey was similar, but the frequency of genotype 4 is more.

***Keywords:*** Hepatitic C virus, genotype

***PP-678***

## *Differential diagnosis between intestinal tuberculosis and Crohns disease by ileocolonoscopic findings*

**Jae Jun Park, Tae Il Kim, Won Ho Kim, Jae Hee Cheon**

*Department of Internal Medicine and Yonsei University College of Medicine, Seoul, Korea*

***Background/Aims:*** Proper differential diagnosis between intestinal tuberculosis (ITB) and Crohn's disease (CD) remains challenging problem. The aim of this study was to develop simple and valuable models for distinguishing these diseases based on the ileocolonoscopic findings.

***Materials and Methods:*** Between January 2003 and January 2010, 202 consecutive patients with ulcers on ileocolonoscopy (106 ITB, 96 CD) were enrolled. Ileocolonoscopic features of these patients were retrospectively reviewed following predetermined criteria. Patients were randomly allocated to a training or a validation set at 2: 1 ratio. Parameters which were significant on univariate analysis were subsequently tested by a classification and regression tree (CART) analysis and logistic regression analysis.

***Results:*** On univariate analysis of the training set, transverse shape ulcer, scars, pseudodiverticulum, patulous ileocecal valve, focal distributions, and ascending colon involvement were more frequently observed in patients with ITB than in patients with CD. Whereas, longitudinal shape ulcer, skip lesion, aphthous lesion, cobblestone appearance, pseudopolyp, segmental or diffuse distributions, and involvement of terminal ileum, transverse colon, descending colon, sigmoid colon, or anorectum were more common in patients with CD than ITB. The CART generated a tree model algorithms which are constructed with three variables including anorectal involvement, presence of aphthous lesion, and patulous ileocecal valve. The CART model made correct diagnosis for ITB or CD in 56 of 68 patients (82.4%). Whereas, stepwise multiple logistic regression analysis identified four independent predictive factors for discriminating ITB or CD: aphthous lesion, pseudopolyp, ascending colon involvement, anorectal involvement. The calculation formula (1.4-(2.92 × aphthous lesion)-(1.89 × pseudopolyp)+(2.10 × ascending colon involvement)-(3.59 × anorectal involvement) < 0) predict CD with an accuracy of 88.2% (60/68).

***Conclusion:*** The novel calculation formula and the decision tree model may be useful for initial differentiation between ITB and CD.

***Keywords:*** Intestinal tuberculosis, Crohn's disease, differential diagnosis, ileocolonoscopy, decision tree

***PP-679***

## *Optimal examinee position for improving visibility during colonoscopy*

**Jae Jun Park, Soo Jung Park, Tae Il Kim, Won Ho Kim, Jae Hee Cheon**

*Department of Internal Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea*

***Background/Aims:*** Adequate luminal distension is crucial to maximize neoplasia detection during colonoscope withdrawal, however examinee position can affect to the luminal visibility of colonoscopy. The aim of this study was to investigate optimal examinee position for improving visibility during colonoscope withdrawal.

***Materials and Methods:*** Thirty-two patients undergoing routine colonoscope were enrolled. Videotaped, three times back-to-back examination of total colorectum in left lateral position (LLP), right lateral position (RLP), or supine position (SP) were performed. The sequence for examinee position was randomly allocated. Luminal distension of eight colonic segments including cecum, ascending colon, hepatic flexure, transverse colon, splenic flexure, descending colon, sigmoid colon, and rectum were scored by a blinded video reviewer. Luminal distension was scored on a scale of 1 to 5 for each colonic area: 1, complete collapse; 5, widely distended, no distal collapse.

***Results:*** On cecum, no significant difference for distension score was observed among three positions, however LLP and SP showed higher distension score than RLP in ascending colon (median score : 5 and 4 versus 3, p<0.001) and hepatic flexure (median score :5 and 4 versus 3, p<0.001). On transverse colon, the highest score was noted in SP (median score: 5, p<0.001). Meanwhile, RLP showed the highest score on the splenic flexure (median score: 5, p<0.001) and descending colon (median score: 5, p<0.001). Lastly, LLP displayed the highest distension score on sigmoid (median score: 3, p<0.001) and rectum (median score: 5, p<0.001).

***Conclusion:*** Luminal distension score of each colonic segments was significantly affected by the examinee position of colonoscopy. Our data has a clinical implication for ideal examinee position in term of improving luminal distension during colonoscope withdrawal.

***Keywords:*** Colonoscopy, examinee, position, visibility

---

***PP-680***

## *Sclerosing encapsulated peritonitis: A rare peritoneal disease*

**Banu Demet Özel Coşkun[1], Mustafa Tahtacı[2], Melike Ruşen Metin[3], Osman Ersoy[2]**

*[1]Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*
*[2]Department of Gastroenterology, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*
*[3]Department of Radiology, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*

***Introduction:*** Sclerosing encapsulated peritonitis (SEP) is a rare disease characterized by partial or complete encasement of the intestines by a fibro collagenous capsule. Primary and secondary types of SEP have been described. The mean age was 34.7 with a 2:1 male predominance. Clinical symptoms and laboratory findings are nonspecific. Thus, the diagnosis and treatment of these patients is delayed. Most cases are diagnosed incidentally at laparotomy. Patients usually present with abdominal symptoms like nausea, vomiting, and altered bowel habit (constipation or diarrhea) with intermittent periods. Late stages of EPS are associated with malnutrition, weight loss, recurrent intestinal obstruction, ischemia, infection and death (7). CT and MR is the best imaging methods, which can show loop dilation, loculated ascites, intestinal calcifications, peritoneal and intestinal thickening and intestinal encapsulation. We present a case of primary ESP who presented with abdominal pain, nausea, vomiting, diarrhea and severe weight loss. To the best of our knowledge, there are 12 patients with primary SEP reported in Turkey. We aimed to raise awareness of gastroenterologists, surgeons and pathologists about SEP disease.

***Case:*** A 26-year-old female presented with a history of intermittent, colicky abdominal pain, nausea, vomiting and severe weight loss. On physical examination, the patient was highly cachectic and ECCOG performance status was grade 4. The patients abdomen was mild distended and there was a vertical midline laparotomy scar. Laboratory data showed WBC: 11,000, Hb 7,8 gr/dL, CRP 102 mg/L, serum Na 127 mg/dL, K 3.2 mg/dL, Ca 7.9 mg/dL, P 2.8 mg/dL, total protein 4.1, albümin 2.2 idi. Tests for celiac diseas were negative. Giardia, Cryptosporidium, Clostridium difficile stool antigen tests were negative. Plain abdominal X-ray showed a few small air-fluid levels. Abdominal ultrasound showed a moderate volume of ascites. On color doppler USG; portal vein, hepatic vein and splenic veins calibrations and flow patterns were normal. Abdominal MRI showed dilated ileal and jejunal loops, suspicious wall thickening in terminal ileum and diffuse ascites in the abdomen. Serum assit albümin grandienti was 1.6 mg/dL. No specific pathology was detected except intraepithelial lymphocyte increase (50 lymphocytes per 100 enterocytes) in duodenal biopsy. It was started parenteral nutritional support with conservative treatment. During the follow-ups, she failed to respond to conservative measures and general surgery consultation was requested with

suspected intestinal obstruction. A nasogastric drain was inserted. During the follow-up, the patient had gas and stool outlet and the operation was not recommended. The patients anamnesis was deepened and old operation notes and pathology results were obtained. In the operation, about 2500 mL clear ascites was removed and the stomach was dilated and adhered to the liver and gall bladder. The third part of the duodenum was narrow and the proximal of the stenosis was dilated. When the small intestines were explored, it was seen that the intestines stick together towards the douglas. The adhesions are sharp and separated by blunt dissections. The surgery was terminated with an omentectomy. Omentum biopsy showed intense fibrosis. The pathological preparations of the patient were reevaluated and the pathological findings were reported to be consistent with SEP. During follow up, the patient was died due to urosepsis.

***Conclusion***: SEP should be included in the differential diagnosis of every case of unexplained abdominal pain, malnutrition and abdominal obstruction.

***Keywords:*** Sclerosing encapsulating peritonitis, small bowel obstruction

**Figure 1.** Abdominal MRI showed dilated ileal and jejunal loops and diffuse ascites in the abdomen.

***Reference***

*1. Da Luz MM, Barral SM, Barral CM, et al. Idiopathic encapsulating peritonitis: report of two cases. Surg Today 2011; 41: 1644-8.*

***PP-681***

## *Three cases of the autologous oral mucosal epithelial cell sheets in preventing formation of esophageal stricture after endoscopic submucosal dissection of esophageal cancer*

**Yutaro Onaka[1], Koudai Kato[1], Jun Ishihara[2], Naoyuki Yamaguchi[3]**

[1]Tomishiro Central Hospital, Okinawa, Japan
[2]Nakagami Hospital, Okinawa, Japan
[3]Nagasaki University Hospital, Nagasaki, Japan

Endoscopic submucosal dissection (ESD) has been the standard treatment method in early esophageal cancer in Japan. However, when esophageal cancer is removed by ESD, inflammation and esophageal stricture frequently develop at the affected site. Oral dose or local injection of steroids has been attempted as a preventive therapy of esophageal stricture. In 2012, Ohki and Yamato published paper at Gastroenterology: Prevention of esophageal stricture after endoscopic submucosal dissection using tissue-engineered cell sheets. But the design of transplanting cell sheets right after ESD, it can be unclear if the procedure was really needed, which may lead to over-treatment. So we considered the esophageal narrowing after ESD as the target of cell sheet therapy. We treated the three patients with esophageal stricture after ESD of esophageal cancer. We collected patient's oral mucosa of 1cm2 square two weeks before the scheduled date of transplantation, and cultured mucosal epithelial cell sheets. We transplanted the cell sheets into laceration generated after endoscopic balloon dilation (EBD) of post-ESD esophageal stricture by using balloon type transplantation device. We investigated safety of transplanting the autologous oral mucosal epithelial cell sheets into laceration generated after EBD of post-ESD esophageal stricture in early-stage esophageal cancer, and efficacy of preventing esophageal stricture after transplanting the sheets in such cases. This treatment was invalid in one case but prevented restenosis of esophagus in another two cases. There is no adverse events in the three cases of transplanting the autologous oral mucosal epithelial cell sheets. One case needed EBD 18 times even with the existing treatment before cell sheet transplantation, but restenosis has not occurred and this case doesn't need additional EBD after cell sheet transplantation. We report the three cases of the autologous oral mucosal epithelial cell sheets in preventing formation of esophageal stricture after ESD of esophageal cancer and the consideration of these cases.

***Keywords:*** Autologous oral mucosal epithelial cell sheets, esophageal stricture after ESD, esophageal cancer

---

***PP-682***

## *Comparison of the efficacy of ursodeoxycholic acid (UDCA) versus vitamin E plus vitamin C in non-diabetic patients with nonalcoholic steatohepatitis (NASH)*

**Tatia Khachidze, Gocha Barbakadze**

*Tbilisi State Medical University, Enmedic Clinic, Tbilisi, Georgia*

***Background/Aims:*** Nonalcoholic steatohepatitis (NASH) is a frequent liver disease that can progress to cirrhosis and for which effective therapy is still lacking. Despite an important role of oxidative stress in the pathogenesis of NASH, antioxidant approaches have not been investigated sufficiently. The aim of the study was to compare ursodeoxycholic acid (UDCA) versus vitamin E plus vitamin C in non-diabetic patients with nonalcoholic steatohepatitis

***Materials and Methods:*** Patients with elevated aminotransferase levels and drinking, less than 40g alcohol/week with NASH diagnose were randomly assigned to receive either UDCA 15 mg/per kg/day (group A) or vitamin E 800 mg/day plus vitamin C 500 mg/day (group B) for 12 months and control group, which did not receive any medical treatment. Lifestyle modification was advised to all groups. The primary study end point was improvement in alanine transaminase (ALT) levels, secondary end points were improvement in steatosis score and improvement in fibrosis score.

***Results:*** 107 patients were included 35 in the group A, 52 in the group B and 20 in control group, 11 patients dropped out, non because of side effects. Baseline characteristics were not significantly different between groups. After 12 months treatment with vitamin E plus C, as compared with UDCA, was associated with a significant reduction of mean alanine aminotransferase (ALT) levels. Similarly, there was significant reduction of both mean steatosis score and fibrosis score

***Conclusion:*** Vitamin E plus C combination is an effective, safe and inexpensive treatment option in patients with NASH and may be useful to reduce damage from oxidative stress and slow the process leading to cirrhosis.

***Keywords:*** Nonalcoholic fatty liver disease, nonalcoholic steatohepatitis, fatty liver, fibrosis, ursodeoxycholic acid, vitamin E, vitamin C

---

***PP-683***

## *Cholestatic jaundice secondary to portal cavernoma*

**Nabil Ben Chaabane, Firas Aissaoui, Raoua Baklouti, Mehdi Abdelwahed, Wided Bouhlel, Arwa Guediche, Mejda Zakhama, Mohamed Hichem Loghmeri, Leila Safer**

*Chu Monastir, Monastir, Tunisia*

Portal biliopathy is due to compression of the common bile duct by varicose veins constituting portal cavernoma. Usually asymptomatic, it can occasionally be responsible for jaundice or cholangitis. We report a case of portal cavernoma secondary to pylephlebitis complicating acute appendicitis, followed eleven years later by occurrence of cholestatic jaundice. Diagnosis of portal biliopathy was done by imaging and confirmed by endoscopic retrograde cholangiography with insertion of a plastic stent into common bile duct. This stent was periodically changed and allowed regression of jaundice with a 3-year follow-up. Through a review of the literature, both clinical and therapeutic characteristics of portal biliopathy were studied.

***Keywords:*** Cholestatic jaundice, portal biliopathy

---

***PP-684***

## *Prognostic impact of the body-mass index on patients with stage iii colorectal cancer is stratified by smoking status*

**Dake Chu, Zixi Zhang, Kun Zhu, Chengxue Dang, Wei Zhao, Lin Fan, Xuejun Sun**

*Xian Jiaotong University, Shaanxi, China*

***Background/Aims:*** Although elevated body-mass index (BMI) increases the risk of developing colorectal cancer (CRC), the prognostic value of BMI is still uncertain in this disease. As smoking is a powerful confounding factor that can even attenuate the increase in mortality caused by elevated BMI, stratified analysis may be required to determine the true prognostic impact of BMI on CRC.

***Materials and Methods:*** This prospective, observational study consisted of 4,086 patients with diagnosed stage III CRC. BMI was measured by trained clinical staff at uniform time points relative to surgery. The association of BMI with outcome was evaluated by univariate and multivariate analysis according to smoking status.

***Results:*** Although BMI was not associated with outcome within total patients, this association was significantly modified by smoking status. Among the never smokers, increased body weight was significantly associated with adverse OS and DFS. In contrast, among the ever smokers, increased weight status was significantly associated with more favorable OS and DFS in both univariate and multivariate analysis. Male sex and extra weight loss was significantly associated with poor outcome in ever, not never, smokers.

***Conclusion:*** These findings, which were obtained from one of the largest reported stage III CRC cohorts, are the first to show that BMI may have adverse prognostic impact on OS and DFS according to smoking status, while sex and weight loss could be a prognostic marker in only ever smokers.

***Keywords:*** Colorectal cancer, body-mass index, smoking, prognosis

***PP-685***

## *Duplication of the extrahepatic bile ducts: A rare case report at civil hospital Karachi*

**Dilaram Khan, Aftab Leghari, Shahriyar Ghazanfar, Saad K. Niaz**

*Civil Hospital Dow University Karachi, Karachi, Pakistan*

***Introduction:*** We report here on an extremely rare case of duplication of extra hepatic bile duct system that was associated with multiple stones in the common bile duct which was initially diagnosed by ERCP and later on confirmed by MRCP.This is a very rare congenital anomaly and have not been reported from any Endoscopy suite of Pakistan. Congenital duplication of the extrahepatic bile duct is a rare anatomical variant and only few cases have been reported in the clinical literature during the past (1). Identification of this anomaly is very important clinically as it can lead to complications such as stones in the biliary tree, cholangitis, pancreatitis and upper gastrointestinal cancers (2). In addition, this congenital anomaly is often associated with anomalous union of the pancreaticobiliary ductal system and the presence of a choledocal cyst (2). Most cases of duplicated extra hepatic biliary tree that have been reported up to now were diagnosed based on the abnormalities that were found by ERCP, MRCP or operative cholangiography (3). There are five types of this anomaly, with only one case of type Va having been reported previously (Choi et al. 2007) (4). And here we report this second such case in surgical unit-IV of civil Hospital karachi which was associated with stones in Common Bile duct.

***Case:*** A 63 years old gentleman, farmer by profession from Jacobabad interior sindh presented to us with pain in right upper abdomen for the last one year and yellow discoloration of the sclera for the last 3 months. Pain was colicky in nature, non-radiating, intermittent and affecting patient's routine activities. After the episodes of the pain subsided, patient usually remained asymptomatic for months and so he could not do any proper work up of the pain. There was no associated fever or weight loss. No significant past medical or surgical history. Three months before this presentation, the family members of the patient noticed some yellowish discoloration of his sclera and took the patients to a consultant in their area where his proper work up was done. His Liver function tests showed cholestatic pattern of liver enzymes with bilirubin of 6.4mg/dl and alkaline phosphatase of 600. CBC and Coagulation profile was normal. US Abdomen showed a 1.2cm calculus in distal CBD with proximal dilatation of CBD and IHDs so he was refered for ERCP to surgical unit-IV of civil Hospital karachi.He was thoroughly evaluated for ERCP through detailed history clinical examination and necessary laboratory investigation as per protocol and was prepared for ERCP. ERCP was done under conscious sedation with nalbupine and midazolam. After cannulation, his cholangiogram showed duplication of extra hepatic biliary system with large filling defects in CBD. So keeping in view the duplication of the biliary system and large filling defects, a biliary plastic stent was palced and MRCP was advised for proper delineation of the biliary tree. MRCP was also suggestive of Duplication of extra hepatic biliary system (anatomical variant type Va) and early cystic duct fusion with right hepatic duct. Patient was re-scheduled for ERCP by a senior Consultant ERCP endoscopist. His previous biliary stent was removed, sphincteroplasty was done, large stones in CBD were crushed with basket followed by balloon sweeping. Duct was cleared of stones. Telephonic follow up of the patient was done after 2 weeks, patient was doing well with no complaints.

***Conclusion:*** Duplication of the extra-hepatic biliary duct system is an extremely rare condition. The developmental failure for the double biliary system to regress, and this double system present in early normal embryogenesis, is considered to be the mechanism of this anomaly. The classification of a double extrahepatic bile duct system has been modified because the newly reported cases could not be included in the existing classification system. Choi et al, when reporting on a type V case, added types Va and Vb to the classification system that was modified by Saito et al. The subtypes of the modified classification system are as follows: Type I, a CBD with a septum in the lumen; Type II, a CBD that bifurcates and drains separately; Type III, double biliary drainage without extrahepatic communicating channels (without (a) or with intrahepatic communicating channels (b)); Type IV, double biliary drainage with one or more extrahepatic communicating channels; Type V, single biliary drainage of double extrahepatic bile ducts without (a) or with communicating channels (b)(Figure 3). Our case corresponded with a type Va anomaly. The clinical concerns for these congenital anomalies are the complications and the concomitant AUPBD. In a review of the Japanese clinical literature by Yamashita et al.[2], the investigators found cholelithiasis in 28% of the cases, a choledochal cyst in 11% of the cases, AUPBD in 30% of the cases and cancer in 26% of the cases. Our case is a form of single biliary drainage in the second portion of the duodenum; Without a communicating channel, no evidence of AUPBD was found by MRCP but there were multiple large stones in the short CBB causing dilatation proximally both on ERCP and MRCP. A correct diagnosis of these

anatomical anomalies before biliary ERCP is clinically important due to the risk of biliary injury during the procedures. MRCP is an important modality which can be utilized in the diagnosis of the duplication of extrahepatic biliary tree. In conclusion, the case we reported corresponds type Va case of the duplication of the extrahepatic bile duct that was associated with choledocholithiasis. This was a very rare case and so far not reported from GI Endoscopy suite of Pakistan.

***Keywords:*** ERCP, MRCP, biliary tree

---

***PP-686***

## *Colorectal cancer in younger ages in UAE*

**Makki H. Fayadh, Salim Awadh Sabih**

*Emirates Society of Gastroenterology, Abu Dhabi, United Arab Emirates*

***Background/Aims:*** The incidence of colorectal cancer is increasing in the gulf area and it is the second killer cancer in UAE in 2017. In UAE the data showed average age for colorectal cancer to be 51 years,59% were men and 41% were women. In the Emirate of Abu Dhabi the Health Authority of Abu Dhabi (HAAD) instituted colon cancer prevention program in 2013 including primary preventive strategies by education, weight control& exercise and secondary prevention strategies by either colonoscopy or fecal immune testing starting at age 40-75. The aims of this study is to highlight the importance of screening for colorectal cancer that affected our younger population and analysed all colonoscopies done in 6 years period done for multiple indications highlighting the important findings of colorectal cancer in the younger population.

***Materials and Methods:*** Cancer is the third leading cause of death in the Emirate of Abu Dhabi. It is second among nationals and the third among expatriates. It accounts for 16% of total deaths. There were around 390 deaths caused by cancer in 2013, 34% were nationals and 66% were expatriates. 43% of death were females and 57% were males the 5 most common types of cancer that are the cause of death in men are (in order of frequency): Liver, Lung, Colorectal, Blood and stomach. The 5 most common types of cancer that are the cause of death in women are (in order of frequency): breast, Liver, Cervix Uteri, Colorectal, and Stomach. Colorectal cancer is the second most common cancer in Abu Dhabi emirate after breast cancer and accounts for 8% of all cancer cases. Approximately 85% of cases are 40 years and older, the majority presenting in advanced stages of the disease. Colorectal cancer can be prevented by adopting a healthy lifestyle focusing on exercising, eating a healthy diet and abstaining from any form of smoking and through screening to detect polyps. HAAD colorectal cancer screening program started May 2013. The program goal is to reduce the number of cases and mortality, as well detect and remove disease precursors, thus preventing potential progression to cancer. Facts in Abu Dhabi 2012 In women it is the 3rd most common cancer and 2nd common cause of cancer deaths. In men, it is the 2nd common cancer and 4th common cause of cancer deaths. Most of the colorectal cancer cases (59%) were men and (41%) were women. Median age of CRC in Abu Dhabi 51 years. Risk factors A-Non modifiable: Family history of colorectal cancer, Personal history of colorectal cancer, Personal history of polyps in the colon, ulcerative colitis or Crohn's disease, Age older than 40 years B-modifiable: Obesity, A diet high in fat and red meat and low in fruits and vegetables, Low levels of physical activity (sedentary lifestyle), Tobacco use (cigarettes, shisha and medwakh, etc..),Alcohol consumption. The health authority of Abu Dhabi (HAAD) started a program of prevention which included primary prevention focusing on life style change, exercise & diet and secondary prevention by colonoscopy or stool immunologic FIT testing; the program can be reviewed in details in the website http://www.haad.ae/simplycheck/tabid/252/Default.aspx HAAD recommends colonoscopy every 10 years in individuals of average risk from 40 years of age and above for both men and women or a fit every two years. HAAD Standard for Colorectal Cancer screening www.haadcolorectal cancer.ae Case studies & results,A single center study During the period 2013-2018 a 6 year outcome study(single center experience ACDS) 6078 colonoscopies performed for multiple indications.

***Results:*** Of 6078 colonoscopies performed for multiple indications,1554 Colon Polyps were detected 22%, 58 cancers were detected during this period 1.1% Age range 29-81 years, 41% below 50 years, 22% below age 40.

***Conclusion:*** Data from UAE showed that CRC is increasing and occur at younger ages than the west, our initial data on colonoscopy showed high prevalence of precancerous conditions including polyps and colitis and many familial& hereditary

cancers Our single center (ACDS) data of 6078 colonoscopies done for a variety of indications showed 22% colon polyps & 1.1% colorectal cancers,58 cancers detected,40% below age 50, 22% below age 40. Colorectal cancer affect younger populations. More data from different centers needed to evaluate the age of colorectal cancer screening. The implications for the screening program is to review the screening age and possibly starting at younger ages.

***Keywords:*** Colorectal cancer, colorectal cancer in the young, colon polyps, colorectal cancer screening in UAE

---

***PP-687***

## *Studies on IGG4 related diseases in UAE*

**Makki Fayadh, Salim Awadh Sabih**

*Emirates Society of Gastroenterology, Dubai, United Arab Emirates*

***Background/Aims:*** IgG4-RD is a fascinating clinical entity including a wide variety of diseases, formerly diagnosed as Mikulicz's disease, autoimmune pancreatitis (AIP), interstitial nephritis, prostatitis and retroperitoneal fibrosis. Universal criteria for IgG4-RD have not yet been established at present, making its diagnosis in some patient's ambiguous leading to many IgG4-RD mimickers. Serum IgG4 levels have been widely used as a reliable criterion for the diagnosis of IgG4-RD, but IgG4 cut-off >135 mg/dL had a low sensitivity and specificity for the diagnosis of IgG4-RD.

***Materials and Methods:*** Methodology, Case studies in UAE: IGG4 levels were studied in 60 patients with multiple auto immune diseases, pancreatitis, sclerosing cholangitis, pachymeningitis, inflammatory bowel diseases & clostridium difficle infections. Our studies showed that IGG4 is higher in ulcerative colitis more than Crohns disease &it was associated with some cases of celiac disease, clostridium difficle infection & multiple autoimmune diseases. The good news is that it respond to steroid completely if treated early.

***Results:*** case studies Case 1 Pachy meningitis,51 male Palestinian smoker :abdominal pain, long history of numbness in the hands, weakness of lower limbs, suspected spinal tumor, biopsy from spinal cord tumor showed igg4 related disease, respond to steroids Case 2 female child 11 years old presented with jaundice, high liver enzymes, ultra sound and MRI showed dilated pancreatic and bile ducts with beeding, a clinical diagnosis of auto immune pancreatitis and sclerosing cholangitis made, responded completely to oral steroids Case 3,25 years old Emirati male, abdominal pain, bloating, itching, High stool calprotectin 950 Colonoscopy: patchy colitis with ileal ulcers Biopsy : features of resolving colitis with mild ileal inflammation Bx ? resolving colitis Video capsule Showed Multiple Ileal Ulcer. IGG4 elevated 292 N 4-86 Positive H. Pylori Case 4 Emirati female 28 years old wiuth hypothyroid, diarrhea during pregnancy with pancolitis after pregnancy developed recurrent clostridium difficle infection with high IGG4 160,treated for positive H.pylori, colitis responded to steroids & adalimumab(HUMIRA) Case 5 Emirati female 45 years old, diabetes with celiac disease, auto immune thyroiditis, eczema, family history of celiac disease, thyroiditis, eczema, arthritis, multiple jejunal&ileal ulcers by video capsule, responded wekk to steroids Case 6 sclerosing mesenteritis 69 years old Emirati male with, abdominal pain, positive H.Pylori, colonoscopy, small adenoma, imaging sclerosing mesenteriti case 7 multiple auto immune diseases an Emirati male 47 with hashimoto thyroiditis, latent celiac disease, ezcema, ilieitis, prostatitis &empty sella syndrome with persistently high IgG4.

***Conclusion:*** Immunoglobulin G4-related systemic disease (IgG4-RD) is an increasingly recognized syndrome of unknown etiology, most often occurring in middle-aged and older men, which is comprised of a collection of disorders that share specific pathologic, serologic, and clinical features. Several of the manifestations typically occur in the same patient; these findings were previously thought to be unrelated and included Type 1 autoimmune pancreatitis (AIP) and IgG4-related sclerosing cholangitis, Mikulicz disease and sclerosing sialadenitis inflammatory orbital pseudotumor, and chronic sclerosing dacryoadenitis, Idiopathic retroperitoneal fibrosis, Chronic sclerosing aortitis and periaortitis, Riedel's thyroiditis and a subset of Hashimoto's thyroiditis, IgG4-related interstitial pneumonitis and pulmonary inflammatory pseudotumors,IgG4-related renal disease, particularly tubulointerstitial nephritis. We described many missed cases in UAE with presentations that simulate many common diseases. Awareness is needed to avoid missing a treatable disease.

***Keywords:*** IgG4 related disease, multiple autoimmune diseases, auto ummune pancreatitis, sclerosing cholangitis, pachymengitis

***PP-688***

## *Vascular compression syndromes in the abdomen how many missed*

**Makki Fayadh, Salim Awadh, Diaa B. Eldib, Loai Kamel**

*Advanced Center for Day Care Surgery, Abhu Dhabi, United Arab Emirates*

***Background/Aims:*** During our practice in UAE we came across many rare and unusual disease presentations that were missed because of either lack of awareness or failure to check detailed history including family history and proper physical examination. These diseases included: vascular compression syndromes in the esopohagus (dysphagia lusoria), duodenum (superior mesenteric artery syndrome), celiac axis (median arcuate ligament syndrome) and renal viens (nut craker syndrome), some are associated with hyper elasticity or underweight.

***Materials and Methods:*** Patients specially those with thin built or with hyper elasticity with recurrent attacks of gastrointestinal symptoms of pain, nausia, vomitting with no clear diagnosses were evaluated for evidence of vascular compressions in the esophagus in patients with dysphagia, in the abdomen with superior mesenteric artery syndrome or median arcuate ligament syndrome or renal vien or ovarian viens.

***Results:*** Our studies on vascular compression syndromes included 3 cases of dysphagia lusoria, 11 cases of superior mesenteric artery syndrome, 2 cases with median arcuate ligament syndrome, 3 cases of renal vien compression. specially in thin patients and those with hyper elasticity syndromes and are often missed and presented as irritable bowel syndromes, anxiety states reflux disease, palpitations, skin friability. Some patients under went surgical corrections. Detailed case studies will be presented.

***Conclusion:*** Vascular compression syndromes are missed in the majority of patients with thin built, hyper elasticity, massive weight loss. Awareness is needed and multi center studies are needed to check the association of hyper elasticity and thin built with these disorders.

***Keywords:*** Abdominal vascular compression syndromes, superior mesenteric artery syndrome, nut craker syndrome, dysphagia lusoria

---

***PP-689***

## *Etiology and clinical course of acute pancreatitis in patients with chronic renal failure*

**Nagihan Akkaş, Zeki Soypaçacı**

*Internal Diseases Clinic, İzmir Katip Çelebi University Atatürk Training and Research Hospital, İzmir, Turkey*

***Background/Aims:*** Acute Pancreatitis is an acute inflammatory situation that characterised with sudden initiation of abdominal pain and elevation of pancreatic enzymes in blood and urine. Chronic Renal Failure is described as the result of glomerular filtration decrease in renal liquid-solute balance adjustment and impairment of metabolic-endocrine functions chronically and progressively. AP proceeds slowly in KBY patients in contrast to the ones are not CKD. This study aims to compare AP patients with chronic renal failure to AP patients who are not with chronic renal failure in terms of etiology, clinical course, pancreatitis severity, complication and mortality.

***Materials and Methods:*** This study is designed as retrospective. The control group is composed of 63 CKD patients diagnosed with AP and 63 patients diagnosed with AP who do not have CKD. The patients who have ARF are not included to the control group. In this study, patients and the control group are investigated and evaluated in terms of demographic information (age and gender), CRP (3rd and 5th day), WBC (1st and 3rd day), PCT, Ca, ALT (1st day), amylase, lipase, duration of

hospitalization, modified Balthazar scoring system, BISAP48 score, whether there is intensive care hospitalizayon or not, the count of AP attack, DM and existence of hypertriglyceridaemia, AP and CKD etiologies, sickness termination situation and mortality. SPSS-22 software is used for the statistical analysis.

***Results:*** Age average of the patients is 69.86±13.252, whereas age average of the individuals in the control group is 57.14±18.16 (p=0.01). ALT 1st day values in the control group is 208,97±201.18 whereas it is 110.73±164,67in the patient group. ALT 1st day values are found higher in the control group (p=0.04). Hospitalization duration of the patient group is averagely 23.41 (days); whereas it is 9.3 (days) in the control group (p=0.03). PCT average is seen as 19.92±41.33in the patient group; whereas it is 1.63±4.02in the control group (p=0.001). When BISAP scores were compared between groups, AP severity score was higher in patients with CRF (p=0.000). In the patient group, there were 11 patients who have been hospitalized in intensive care unit; whereas there were 2 patients in the control group (p=0.008). The sickness termination situation is stated as 11 exitus, 52 discharge in patient group; whereas it is 2 exitus, 61 discharge in the control group (p=0.008). The difference between these groups is statistically meaningful within these stated parameters.

***Conclusion:*** In the lights of meaningful results of our study; for the patients with CKD, elder age is thought as a risk for acute pancreatitis. CKD and the existence of additional comorbidities which cannot be taken under control cause the increase of average hospitalization duration in AP, needs of intensive care hospitalization, mortality and BISAP48. Multiple organ failure is the most important cause of death in the patient and control groups. PCT level is seen higher in the patient group. Procalcitonin is low molecular weight protein and may be excreted in the kidneys, that is why it is thought as the serum level in CKD increases. Modified Balthazar scoring and AP severity could not be evaluated salubriously because contrast CT is indicated in a very few cases. In conclusion, appearance of clinical and pathophysiological processes in details on AP patients with CKD will increase survival by providing significant decreases in mortality and morbidity.

***Keywords:*** Acute pancreatitis, chronic renal failure, modified Balthazar scoring

---

***PP-690***

## *Celiac diseas: An under recognised condition in UAE*

**Makki Fayadh, Salim Awadh Sabih**

*Advanced Center for Day Care Surgery, Abu Dhabi, United Arab Emirates*

***Background/Aims:*** Many faces for celiac disease: Celiac disease (CD) can be easily mistaken for many other diseases due to its vast clinical symptoms and presentations. Studies done in Abu Dhabi showed prevalence of positive celiac serology of in 2.3% of pre marriage testing. The time taken to make the diagnosis may go to more than 10 years. Cases diagnosed are very few because of lack of awareness of the disease by the health care workers. The presentation of celiac disease in Abu Dhabi is very variable ranging from under nutrition to gross obesity, skin itching, from diarrhea to constipation to mouth ulcers and migraine and epilepsy, some presented with thyroid disease, infertility and gynecological problem and skin diseases. There is a need to unify the test for celiac disease and to use more sensitive tests like tTGA and the new rapid test for celiac disease which is the de amidated anti gliadin and to stop doing the old anti gliadin antibodies which is not sensitive& to introduce the genetic test for celiac disease HLA DQ2 &DQ8. The aim is to make awareness about celiac disease to all specialties.

***Materials and Methods:*** The presentation of celiac disease in UAE according to our local experience: Any of these symptoms can be seen in patient with celiac disease: Recurrent mouth ulcer; Altered bowel motion; Diarrhea or constipation, patients labeled with irritable bowel syndrome IB; Iron deficiency anemia, vitamin D deficiency, myalgia, arthritis, neuritis and neuropathy, skin lesion of unknown etiology, dental enamel problems, transaminitis, chronic liver disease and liver cirrhosis.

***Results:*** A review of our local experience in Abu Dhabi in celiac disease in 10 years is presented, time to diagnosis ranged from months to 20 years. Fatigue, Depression, Muscle cramps, Constipation, Weight gain, Low body temperature, Dry skin, Dry/Brittle hair or hair loss. Celiac associated diseases Thyroid disease — There is an increased incidence of autoimmune thyroid disease among patients with celiac disease. Hypothyroidism is more frequent than hyperthyroidism. Gastroesophageal re-

flux disease — An association of celiac disease with gastroesophageal reflux disease (GERD) has been reported. Eosinophilic esophagitis — A diagnosis of eosinophilic esophagitis should be considered in patients with celiac disease and dysphagia or persistent reflux. Inflammatory bowel disease — Several case series have demonstrated an association between celiac disease and inflammatory bowel disease (IBD), more frequently with ulcerative colitis than Crohn's disease
Studies on patients attending our center for a variety of symptoms including reflux disease, recurrent mouth ulcers, itching, joint pains, gases and bloatedness, disturbed menses and infertility, dizziness, migraine and epilepsy, anemia and vit D deficiency.

***Conclusion:*** Celiac disease is under recognised in our area, awareness is needed for all specialties, including general physicians,gastroenterologists,dermatologists,gynecologists,rheumatologists,neurologists,hematologistsand dentists with patients with the followings anemia, gases, weakness, altered bowel habits, mouth ulcers, diarrhea, abd pain, reflux, itching, itching dry skin, thyroid disease, hypotension diabetes mellitus, hypcalcemia, vit D deficiency, osteoporosis, dental enamel changes, poor dentition, mouth ulcers, infertility, disturbed menses, anemia migraine, epilepsy, dizzy spells, small intestinal cancers, easy fractures.

***Keywords:*** Celiac disease, missed celiac disease, unusual presentation of celiac disease

---

***PP-691***

## *Obscure gastrointestinal bleeding: Case report a diagnostic dilemma*

**Ali Gavidel**

*Tabriz University of Medical Science, Tabriz, Iran*

We present a case of obscure gastrointestinal bleeding with the clinical presentation of hematemesis and melena. The patient was a 68-year-old man who complained of recurrent upper gastrointestinal bleeding that was presented with hematemesis and melena. He gave no history of abdominal vascular reconstructive surgery, peptic ulcer disease or any other diseases. The patient appeared anemic with pale skin in a altered hemodynamic state on physical examination. His vital signs were unstable. Heart, and lungs examination were normal There was no scar on abdomen. Epigastrium was tender on palpation without any organo-megaly. He was admitted with clinical presentation of upper gastrointestinal bleeding with hematemesis and melena. The clinical examination including heart, and lungs examination were normal Laboratory evaluation including blood tests, showed anemia. Emergency upper and lower endoscopy could not find a bleeding source. Total colonoscopy with terminal ileal intubation was fruitless and negative. Abdominal and pelvic computed tomography (CT), with and without contrast agent showed a sacular aneurysmal mass around bifurcation of abdominal aorta with size of 5 centimeter that associated with mural thrombosis and extended to proximal common iliac artery. The second part of duodenum was attached to the upper border of aneurysmal mass with suspicious communication between the aorta and the small intestine Figure 1. Abdominal and pelvic computed tomography (CT), with and without contrast agent showed an sacular aneurysmal mass around bifurcation of abdominal aorta with size of 5 centimeter that associated with mural thrombosis and extended to proximal common iliac artery. Surgical consultation was requested, the surgeon transferred him to operation room with appropriate condition for surgery. And aneurysmal mass was resected with vascular graft re-construction. There was a defect in the upper wall of the aortic aneurysm contiguous with the fourth part of the duodenum. Abdominal and pelvic computed tomography (CT), with and without contrast agent showed Increased enhancement material is present in the fourth part of the duodenum. Air bubbles of gas in the aneurysm sac and periaortic inflammatory tissue were not seen. An aorto-duodenal fistula was found between the aorta and the fourth part of duodenum of small intestine that was ligated (3). And aneurysmal mass was resected with vascular graft re-construction. This case illustrates intensive care treatment of a life-threatening hemorrhage from an aorto-entric fistula. This patient did survived probably due to rapid and correct diagnosis due to team working between gastroenterologist radiologist and surgeon. The diagnosis and the treatment of aorto-enteric fistula are difficult and is a big diagnostic problem for gastroenterologist and surgeon (1). But in a patient with hematemesis and melena with aortic aneurysm when upper and lower endoscopy could not find a bleeding source., a diagnosis of aorto-enteric fistula should be sujested (2). In the our clinical case, the available clinical, instrumental, and radiological supports made the hypothesis of such a diagnosis very

much probable. These findings, associated with gastroesophageal bleeding and the history of aortic aneurysm lead to the diagnosis of aorto-enteric fistula In our case, the aim of this case report is to emphasize early diagnosis and management of all gastrointestinal bleeding in patients without any have a history of aortic aneurysm (4,5).

***Keywords:*** Obscure gastrointestinal bleeding

***References***

*1. Diethrich EB, Campbell DA, Brandt RL.Gastrointestinal hemorrhage. Presenting symptom of aortoduodenal fistulization. Am J Surg 1966; 112(6): 903-7.*
*2.Diethrich EB, Campbell DA, Brandt RL.Gastrointestinal hemorrhage. Presenting symptom of aortoduodenal fistulization. Am J Surg 1966; 112(6): 903-7.*
*3. Reckless JP, McColl I, Taylor GW. Aorto-enteric fistulae: an uncommon complication of abdominal aortic aneurysms. Br J Surg 1972; 59(6): 458-60.*
*4.Dachs RJ, Berman J. Aortoenteric fistula. Am Fam Physician 1992; 45(6): 2610-6.*
*5.Chang MW, Chan Y, Hsieh H, Chang S. Secondary Aortoduodenal Fistula. Chang Gung Med J 2002;25(9): 626-30.*

---

***PP-692***

## *Serum mIR-33A is associated with steatosis and inflammation in patients with non-alcoholic fatty liver disease*

**Denisa Erhartova[1], Monika Cahova[2], Irena Mikova[1], Eva Sticova[3], Julius Spicak[1], Ondrej Seda[4], Pavel Trunecka[1]**

*[1]Department of Hepatogastroenterology, Institute for Clinical and Experimental Medicine, Prague, Czech Republic*
*[2]Experimental Medicine Centre, Institute for Clinical and Experimental Medicine, Prague, Czech Republic*
*[3]Clinical and Transplant Pathology Centre, Institute for Clinical And Experimental Medicine, Prague, Czech Republic*
*[4]Charles University and General University Hospital in Prague, First Faculty of Medicine, Institute of Biology and Medical Genetics, Prague, Czech Republic*

***Background/Aims:*** MiR-33a has emerged as a critical regulator of lipid homeostasis in the liver. Genetic deficiency of miR-33a aggravates liver steatosis in a preclinical model of non-alcoholic fatty liver disease (NAFLD), and levels of miR-33a are increased in the livers of patients with non-alcoholic steatohepatitis (NASH). It was unknown whether miR-33a is detectable in the serum of patients with fatty liver disease. We sought to determine whether circulating miR-33a is associated with hepatic steatosis or inflammation and whether it could be used as a serum marker in patients with fatty liver disease.

***Materials and Methods:*** We analysed circulating miR-33a using quantitative PCR in 116 liver transplant recipients who underwent post-transplant protocol liver biopsy. Regression analysis was used to determine association of serum miR-33a with hepatic steatosis, inflammation, ballooning and fibrosis in liver biopsy.

***Results:*** Liver steatosis and inflammation, but not ballooning or fibrosis, were significantly associated with serum miR-33a, dyslipidemia and insulin resistance markers on univariate analysis. Multivariate analysis showed that steatosis was independently associated with serum miR-33a, ALT, glycaemia and waist circumference, whereas lobular inflammation was independently associated with miR-33a, HbA1 and serum triglyceride levels. Receiver operating characteristic analysis showed that exclusion of serum miR-33a from multivariate analysis resulted in non-significant reduction of prediction model accuracy of liver steatosis or inflammation.

***Conclusion:*** Our data indicate that circulating miR-33a is an independent predictor of liver steatosis and inflammation.

***Keywords:*** miR-33a, non-alcoholic fatty liver disease, non-alcoholic steatohepatitis, biomarkers

***PP-693***

## *Hepatitis B reactivation in a bone marrow transplanted patient: A case report*

**Ahmet Uyanıkoğlu, Cumali Efe, Ahmet Bertan**

*Department of Gastroenterology, Harran University School of Medicine, Şanlıurfa, Turkey*

***Introduction:*** HBsAg positive patients with hematological malignancies have a high risk of developing hepatitis B reactivity when using chemotherapy agents and bone marrow transplantation (BMT). Hepatitis B virus (HBV) reactivation has been reported in patients with HBsAg-negative, anti-HBc IgG and anti-HBs-positive (resolved HBV infection) lymphoma when BMT and rituximab is used. A middle-aged female patient with HBV reactivation after BMT is presented.

***Case:*** The 43-year-old woman presented to the gastroenterology clinic with complaints of fatigue, weight loss and jaundice. In her history, it was learned that she had been diagnosed with Hodgkins lymphoma due to EBV 7 months ago. On physical examination icteric, there was no defensive rebound, the right upper quadrant was sensitive to deep palpation. In pre-BMT studies, HBsAg (-), anti-HBs (+), anti-HCV (-), ALT and AST were within normal limits. Actuel AST: 356 U/L, ALT: 590 U/L, ALP: 291 U/L, GGT: 293 U/L, total bilirubin: 8.5 mg/dL, HBsAg: (+), anti-HBc IgM (+), anti-HBc IgG (+) was detected. The patient was diagnosed with acute hepatitis B reactivation after BMT and entecavir 0.5 mg 1X1 was started. Since the 3$^{rd}$ day of the treatment, the clinical condition began to improve, and tranaminases and bilirubin levels regressed. The patient was discharged from hospital on the first week of his admission.

***Conclusion:*** Even if the antibody is positive after resolved hepatitis B infection, acute hepatitis B reactivation may be seen in patients who underwent BMT if the oral antiviral prophylaxis is neglected as in our patient. If such a situation is encountered, rescue therapy should be performed with strong antivirals such as entecavir and tenofovir.

***Keywords:*** Hepatitis B reactivation, lymphoma, BMT

---

***PP-694***

## *Effect of probiotic supplement in symptomatic celiac disease patients on long-term gluten-free diet: A pilot study*

**Mohammad Rostami-Nejad[1], Mona Soheilian Khorzoghi[2], Abbas Yadegar[3], Hamid Mohaghegh Shalmani[1], Elham Aghamohammadi[1], Ali Moheb-Alian[1], Kamran Rostami[4], Hossein Dabiri[5], Azam Hadadi[2], Mohammad Reza Zali[1]**

*[1]Gastroenterology and Liver Diseases Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
*[2]Department of Microbiology, Karaj Branch, Islamic Azad University, Tehran, Iran*
*[3]Foodborne and Waterborne Diseases Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran*
*[4]Department of Gastroenterology, Mid Central Dhb, Palmerston Hospital, Palmerston North, New Zealand*
*[5]Department of Microbiology, Faculty of Medical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** A strict gluten-free diet (GFD) is currently the only recommended treatment for celiac disease (CD). Despite apparent compliance with the diet, 30-50% of treated patients have gastrointestinal (GI) symptoms. We explore the effect of a three-month course probiotic supplement on persistent symptoms in patients with CD following a long-term GFD.

***Materials and Methods:*** We conducted a prospective, randomized, double-blind, placebo-controlled trial. Adult patients were enrolled if they were on a GFD for at least two years and were symptomatic at screening according to the GI symptom

rate score (GSRS). 31 patients were randomized to receive probiotic (n=16) or placebo (n=15) for 12 weeks. Patients who answered "considerably relieved" or "completely relieved" over the 12 weeks of intervention were defined as responders.

***Results:*** Thirty one patients including 16 in probiotic group (with mean age=31±15, 50%female) and 15 in placebo group (with mean age=39.5±20, 53.3% female) were enrolled. At the baseline analysis, there were no significant differences in the total score and subscales comparing probiotics vs. placebo. After 12 weeks trial, there was statistically significant relief in symptoms for diarrhea (46.7% vs. 12.5%, p=0.04) and fatty diarrhea (40% vs. 6.2, p=0.03); But there were no significant differences for abdominal cramp (93.3% vs. 93.75%, p=0.38), bloating (86.7% vs. 87.5%, p=0.25), fatigue (93.3% vs. 87.5%, p=013), gas feeling (93.3% vs. 81.25%, p=0.38), weight loss (80% vs. 81.25%, p=0.38), heartburn (93.3% vs. 81.25%, p=0.82), muscle pain (73.3% vs. 81.25%, p=0.96), nausea/vomiting (33.3% vs. 31.2%, p=0.90), and bloody diarrhea (6.7% vs. 6.2%, p=0.97), anemia (46.7% vs. 37.5%, p=0.72), depression mood (13.3% vs 50.0%, p=0.09) and stress (53.3% vs 81.2%, p=0.12) between two groups.

***Conclusion:*** This experimental study suggests that probiotic supplement may improve specific CD symptoms in a subgroup of treated patients with higher symptomatic burden despite adherence to the diet.

***Keywords:*** Celiac disease, probiotic, gluten-free diet, symptoms

---

***PP-695***

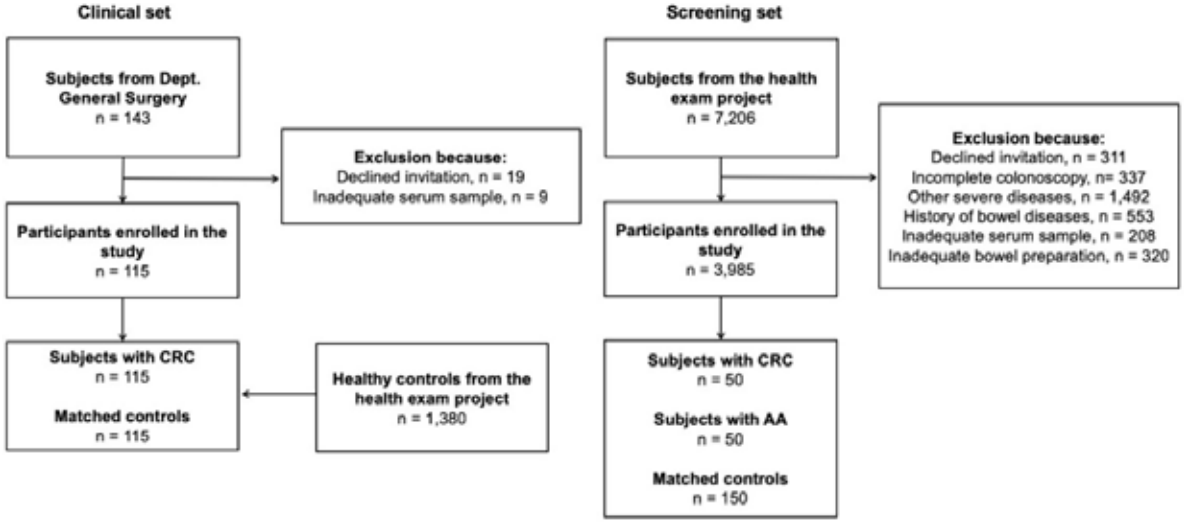
## *Serum netrin-1 as a biomarker for colorectal cancer detection*

**Jinzhou Zhu[1], Liting Xi[1], Chufang Xu[1], Airong Wu[1], Xiaoming Ma[2], Jiayu Zhang[3]**

*[1]The First Affiliated Hospital of Soochow University, Suzhou, China*
*[2]Suqian Affiliated Hospital of Xuzhou Medical University, Suqian, China*
*[3]China-Japan Union Hospital of Jilin University, Changchun, China*

***Background/Aims:*** Recent evidence supported that netrin-1 involves in colorectal carcinogenesis. This study was to evaluate the performance of serum netrin-1 for detection of colorectal cancer (CRC) in both a clinical set and a screening set.

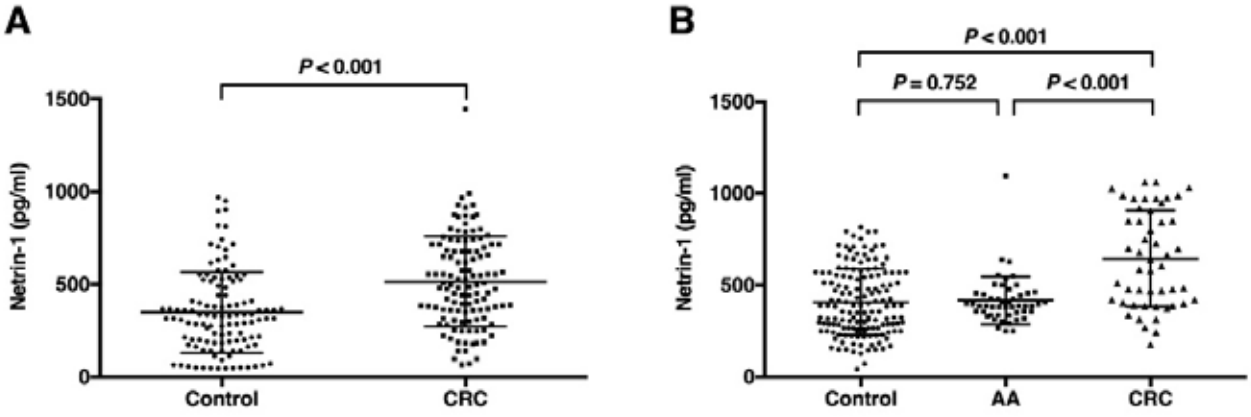
***Materials and Methods:*** A total of 115 consecutive patients with CRC and matched healthy controls were included in Clinical Set. Fifty subjects with CRC, 50 subjects with advanced adenoma (AA), and 150 matched control participants free of neoplasia were included in Screening Set. Circulating levels of netrin-1 were evaluated with commercial ELISA kits.



***Results:*** In Clinical set, subjects with CRC presented higher levels of serum netrin-1 (513.9±22.6 pg/mL) than controls (347.8±20.3 pg/mL, p<0.0001). Similar in Screening set, serum levels of netrin-1 was higher in CRC (644.5±37.0 pg/mL), in comparison with controls (407.7±14.8 pg/mL, p<0.0001) and AA (416.5±18.5 pg/mL, p<0.0001). However, there was no difference between controls and AA (*p*=0.752). Compared with the low netrin-1 group, the high group presented increased risk of CRC (Clinical set: OR=4.300 [95%CI 2.473 – 7.477], p<0.001); Screening set: OR=7.731 [95%CI 3.618 – 16.519], p<0.001). ROC curve of netrin-1 was developed to detect CRC (Clinical set: AUC 0.703 [95%CI 0.636 – 0.770]; Screening set: AUC 0.759 [95%CI 0.680 – 0.837]).

***Conclusion:*** It suggests netrin-1 as a potential biomarker in the screening and detection of CRC.

***Keywords:*** Biomarker, netrin-1, colorectal cancer, screening




| | Clinical set | | Screening set | | |
|---|---|---|---|---|---|
| | Controls | CRC | Controls | AA | CRC |
| Number | 115 | 115 | 150 | 50 | 50 |
| Netrin-1 levels (pg/mL) | 347.8±20.3* | 513.9±22.6* | 407.7±14.8# | 416.5±18.5^ | 644.5±37.0#^ |
| Age (years) | 53.8±8.7 | 55.9±9.1 | 54.2±9.2 | 51.9±10.0 | 55.8±9.6 |
| Sex | | | | | |
| Male | 92 | 92 | 111 | 37 | 37 |
| Female | 23 | 23 | 39 | 13 | 13 |
| BMI (kg/m$^2$) | 22.8±3.0 | 24.6±3.9 | 22.4±2.9 | 23.1±3.1 | 23.7±3.1 |
| WHR | 0.89±0.08 | 0.92±0.06 | 0.88±0.08 | 0.94±0.09 | 0.99±0.07 |
| TNM stage | | | | | |
| I | | 16 | | | 10 |
| II | | 43 | | | 22 |
| III | | 42 | | | 13 |
| IV | | 14 | | | 5 |
| Location | | | | | |
| Colon | | 83 | | | 34 |
| Rectum | | 32 | | | 16 |

Data are mean±SD for continuous variables. *p<0.001; #p < 0.001; ^p < 0.001.

AA: Advanced adenomas; BMI: Body mass index; WHR: Waist-to-hip circumference ratio.

***PP-696***

## *Endoscopic submucosal laser ablation for the treatment of type 2 diabetes*

**Marek Benes[1], Julius Spicak Milos Mraz[2], Pavel Drastich Julius Spicak[1]**

*[1]Department of Gastroenterology, Institute for Clinical and Experimental Medicine (IKEM), Prague, Czechia*
*[2]Department of Diabetology, Institute for Clinical and Experimental Medicine (IKEM), Prague, Czechia*

***Background/Aims:*** Duodenal Glycemic Control™ (DGC) is an endoscopic procedure under direct vision which uses a disposable catheter (DiaGone™) without an Implant. DiaGone™ utilizes precisely controlled laser technology to target the duodenal submucosa in order to modulate the GI neurohormonal axis, hence improving glucose metabolism.

***Materials and Methods:*** The DiaGone™ first in human study objectives include safety, performance and effectiveness in terms of glycemic control. The study is an on-going, prospective trial with 1-year follow-up in T2DM patients uncontrolled on oral medication (metformin). Subjects receive DGC treatment by interventional gastroenterologists.

***Results:*** To date, 18 subjects (13 men) were included in the study. First 6 patients were treated at low laser energy and are included for safety analysis having completed the study 12 months follow-up. All procedures (18) completed successfully. Median procedure time was 78 minutes. There were no reported adverse events related to the device or the procedure. 1-month follow-up endoscopies were without any clinical findings in all patients and none of the patients reported any change in GI symptoms or behavior. At present 9 patients treated with therapeutic laser energy reached 6 months follow up. Baseline HbA1c was (9.2±0.6) %, fasting glucose was 210±36 mg/dL, mean BMI was 33.6±4.5 kg/m, average time from diagnosis of T2DM was 6.4±0.6 years. At 6 months, HbA1c was reduced by 1.1%, with a corresponding fasting glucose improvement of 35 mg/dL. Glucose tolerance during a mixed meal test showed a mean reduction in AUC of 16%at 6-month follow up. There was no significant change in body weight.

***Conclusion:*** DGC™ is an easy to use endoscopic treatment of T2DM, demonstrating safe and highly tolerable results. Preliminary effectiveness on glycemic control is promising and provide additional evidence to the role of the duodenum in T2DM.

***Keywords:*** Obesity, duodenal blinding, type 2 diabetes mellitus

---

***PP-697***

## *A case of sudden loss of vision secondary to bilateral endogenous endophthalmitis as septic complication of pyogenic liver abscess caused by Klebsiella pneumoniae*

**Marc Julius Navarro, Ian Homer Cua**

*Department of Gastroenterology, St. Lukes Medical Center, Quezon City, Philippines*

***Introduction:*** Endogenous endophthalmitis (EE) is an uncommon intraocular infection with potentially devastating visual consequences. It is initially associated with visual impairment, leading to loss of vision despite aggressive treatment. The etiology of endogenous endophthalmitis is multifactorial, with multiple possible causative organisms depending on geographic location. In Asia, gram-negative organisms such as *Klebsiella pneumonia are* more common, and can often be associated with liver abscess. Diagnosis can often be difficult due to variability of clinical presentations.

***Case:*** Patient is a 61-year-old, female, non-hypertensive, diabetic, presenting with bilateral blurring of vision associated with eye redness and mild pain. On examination, vision was no light perception on the right and light perception on the left, with grade 3-4 cells, and with membranous material in the anterior chamber of both eyes. Ocular ultrasound on both eyes showed severe vitritis. She was referred to a retina specialist who did aspiration of vitreous samples for culture and sensitivity, pars

plana vitrectomy, silicone oil injection, phacoemulsification, and intravitreal injection of antibiotics, on both eyes. Culture of purulent vitreous aspirate and blood all revealed *Klebsiella pneumoniae*. Abdominal ultrasound revealed hepatic abscess in the right lobe.

***Conclusion:*** High index of suspicion, early disease recognition and timely intervention are all essential to decrease potential morbidity and mortality.

***Keywords:*** *Case report, pyogenic liver abscess, endogenous endophthalmitis, Klebsiella pneumoniae*

---

***PP-698***

## *Otilonium bromide-simeticone combination as an effective alternative on treatment of functional abdominal bloating/distension disorder*

**Aybala Yıldız, Alp Yıldız**

*Department of General Surgery, Yıldırım Beyazıt University Yenimahalle Training and Research Hospital, Ankara, Turkey*

***Background/Aims:*** Functional abdominal bloating and distension(FAB) disorder covers a very wide number of population among the patients with functional gastrointestinal disorders (FGIDs), however, relatively little is known about their treatment. In this study our aim was to investigate the depression and anxiety rates among FAB patients and assess the efficacy of otilonium bromide-simeticone combination product on healing and quality of life.

***Materials and Methods:*** 104 patients with functional abdominal bloating disorder (FAB) according to Rome IV criteria included the study. All patients have given 40 mg otilonium bromide-80 mg simeticone combination drug (OSC) in one tablet 3 times a day on mealtime. Qol questionnaire (QoL), beck anxiety index (BAI) and Hamilton depression index (HDI) applied before the treatment and after the treatment on follow-up at 3$^{rd}$ month.

***Results:*** The results showed very high scores of anxiety and depression and very poor results for QoL in the patients with FAB. Qol increased 83.05 to 27.05 ($p<0.05$) After the treatment both BAI and HDI showed statistically significant improvement ($p<0.05$) for all groups. 18.25/9.62 and HDI 5.41/2.66 before and after treatment. 85 patients of 104 showed complete recovery after treatment (81.75%).

***Conclusion:*** This study showed a very high rates of anxiety and depression among FAB patients and very lower scores of QoL index. In the treatment of FAB prokinetics, lubiprostone, antibiotics and probiotics demonstrate efficacy for the treatment of bloating and/or distension in this certain FGID, but other agents have either not been studied adequately or have shown conflicting results. With this study our results showed OSC as a very effective treatment alternative for the patients with FAB both for disorder and psychiatric side effects.

***Keywords:*** Functional abdominal bloating, otilonium bromide simeticone combination, quality of life

---

***PP-699***

## *Endoscopic band ligation: As initial therapy for gastric antral vascular ectasia*

**Mohammad Naymul Hasan[1], Sukanta Chandra Das[2], Birendra Nath Saha[3]**

[1]*Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh*
[2]*Narayanganj General Hospital, Narayanganj, Bangladesh*
[3]*Shaheed Tajuddin Ahmed Medical College, Gazipur, Bangladesh*

Gastric antral vascular ectasia (GAVE) is an infrequent cause of chronic gastrointestinal bleeding. It is a capillary-type vascular malformation located primarily in the antrum. The authors described a case report of GAVE in a female cirrhotic patient, was presented with severe symptomatic iron deficiency anemia. Patient was treated with endoscopic band ligation as initial therapy with resolution of anemia, without further episode of bleeding and no need for readmission or transfusion. The optimal treatment for GAVE is yet not clearly known. Argon plasma coagulation is a relatively new non-contact electro coagulation technique with a high recurrence rate after treatment. However, endoscopic band ligation (EBL) is applied widely as an effective and standard treatment for esophageal varices by reason of obliteration of the sub mucosal varices. EBL has been reported to be a relatively easy technique for GAVE therapy and has been shown to be safe and effective with lower complication rates in comparison with APC. We found that endoscopic band ligation is effective and safe as an initial therapy in GAVE. Further randomized multicenter prospective study with multiple cases will bring to light.

***Keywords:*** Endoscopic Band Ligation (EBL), Gastric Antral Vascular Ectasia (GAVE)

---

***PP-700***

## *the effect of smoking plus drinking on intestinal flora is: 1 plus 1 equal 2?*

**Renbin Lin, Luyi Chen, Shujie Chen**

*Department of Gastroenterology, Sir Run Run Shaw Hospital, Zhejiang University School of Medicine, Zhejiang Sheng, China*

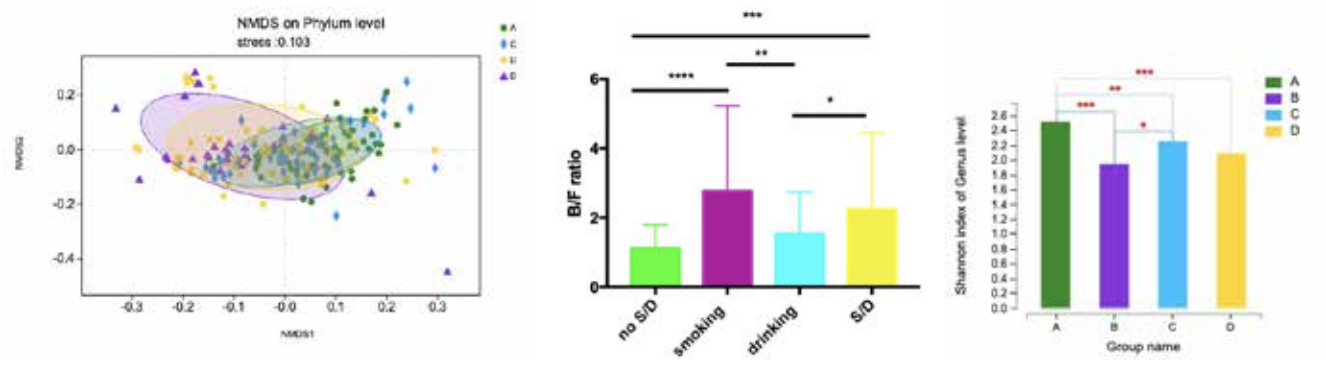
***Background/Aims:*** It is well known that disbalance of intestinal flora can lead to many systemic diseases, including gastrointestinal diseases, oral diseases, respiratory diseases, heart diseases, skin diseases and so on. We know that the factors affecting intestinal flora are the physiological status of the body itself and the role of external environmental factors, such as smoking and drinking. But the mechanism therein is still in need of the further research. Our aim is to better understand the effects of smoking plus drinking on intestinal flora.

***Materials and Methods:*** From 2017 to 2019, we enrolled 215 healthy people from Sir Run Run Shaw Hospital affiliated to Medical College of Zhejiang University. Referring to the 1997 WHO standard, we define "smokers who smoke continuously or accumulatively for six months or more in their lifetime" as smokers. We classified regular smokers, occasional smokers and former smokers as smoking groups. We classify current drinkers and former drinkers as drinking groups. The comprehensive personal information of the subjects was obtained by questionnaire survey or telephone inquiries. On the same day, fecal samples and clinical data were collected. Fresh stool samples were collected from all subjects at baseline. All stool samples were immediately frozen and stored at −80°C.

***Results:*** 215 subjects were assigned into four groups: group A (non-smoking and non-drinking), group B (smoking), group C (drinking) and group D (smoking and drinking). According to α-diversity analysis, the diversity and evenness of the other three groups decreased to varying degrees compared with group A. The overall bacterial profiles differed among four groups (β-diversity ANOSIM Statistic=0.0412, p=0.001). In addition, the difference of profiles between group A and group B was the greatest. The Bacteroidetes: Firmicutes (B:F) ratios were 1.10, 2.77, 1.53 and 2.24 in four groups communities, respectively. The relative abundances of Bacteroidetes were increased in other three groups compared to group A, while Firmicutes, Faecalibacterium, Butyricicoccus, Ruminococcaceae and Lactobacillus were decreased.

***Conclusion:*** Above all, smoking and drinking have certain influence on the human intestinal microecology. At the same time, we found that when both smoking and drinking are synthesized, the effect on intestinal flora is not simply superimposed. On the other hand, it illustrates that the intestinal flora of human body is a complex micro-organ, which needs further exploration in the future. All these findings suggest that intestinal flora potentially plays a critical role in smoking/drinking-related diseases.

***Keywords:*** Smoking, drinking, intestinal flora




***PP-701***

## *A case of silent celiac disease with prolonged prothrombin time in an untreated adult*

**Uğur Önal, Deniz Öğütmen Koç**

Department of Gastroenterology, Gaziosmanpaşa Taksim Training and Research Hospital, İstanbul, Turkey

Celiac disease is an autoimmun disorder that affects the small intestine and results from immun-mediated reaction to dietary gluten in those with a genetic predisposition. It's one of the most important diseases to lead chronic malabsorbtion. Generally celiac disease is diagnosed in childhood but the prevalence of the disease is increasing in adult population. It's usually seen with symptoms such as diarrhea, flatulence, abdominal distention in symptomatic patients but it can also be seen as asymptomatic, iron deficiency anemia, vitamine B12 deficiency and more rarely as osteoporosis, prolonged prothrombin time secondary to malabsorbtion. We present here a case of a 47-year old man who has celiac disease with prolonged prothrombin time.

***Keywords:*** Celiac disease, prothrombin time, malabsorbtion

***PP-702***

## *Monitoring system of patients with inflammatory bowel disease*

**Gulustan Babayeva, Zeynal Babayev**

*[1]Department of Therapy, A. Aliyev's State Advanced Training Institute for Doctors, Baku, Azerbaijan*
*[2]Department of Invasive Diagnosis and Therapy, National Center of Oncology, Baku, Azerbaijan*

***Background/Aims:*** Inflammatory bowel diseases are one of the actual problems of modern medicine. On the grounds of additional laboratory investigations an attempt to evaluate patients state has been carried out. The aim of investigation was to create a system of monitoring of patients with IBD.

***Materials and Methods:*** 183 patients (104 with Crohn disease (CD) and 79 with ulcerative colitis (UC)) without any other pathologies were under observation. Diagnosis of disease was established on the basis of ECCO criteria. Degree of severity of disease was assessed according to CDAI and TW criteria. 81 women and 102 men at the age of 17-60 (42.3±2.7) were under observation. 20 patients with diagnosis irritational bowel syndrome and 20 healthy people were introduced into investigation. In all patients the parameters of homocystein, highly sensitive C-reactive protein (H/s-CRP), vitamin D and level of blood thrombocytes, urine albumin, calprotectin were determined.

***Results:*** In general group of patients with IBD an increase of homocystein level was noted in 86.6%, h/s CRP – in 95.0%, thrombocytosis – in 75.5%, decrease of vitamin D level – in 94.4%, urinary albumin – in 72.3%and increase of calprotectin in 96.4% of cases. During the analysis there was no difference between groups with UC and CD ($p>0.05$). But, results of investigation in control groups significantly differed from those of the main group ($p<0.01$). The same was discovered in separate comparison of control groups with groups of UC and CD patients ($p<0.01$). Computer processing of the achieved results aimed at discovering of correlation between investigated parameters and state of the patients was carried out in accordance with ECCO recommendations. Degree of severity of patients state was assessed according to balls system. Clinical-endoscopic remission corresponded to 3 balls and less; in 4-6 balls patients had light, from 6-9 balls – moderate and 9 balls and more – severe degree of clinical course of the disease. Balls were counted by the following system: homocystein – 1.3N – 1; 1.5N – 2; >1.5N – 3 balls; h/s CRP- 1.3N – 1; 1.5N – 2; >1.5N – 3 balls; thrombocytes – 1.1N – 1; <1.2N – 2; >1.2N – 3 balls; vitamin D- >0.7N – 1; >0.4N – 2; <0. 4N – 3 balls; calprotectin- <2N – 1; <3N – 2; >3N – 3 balls; albumin – micro 2; macro – 3 balls. Normal value of indicators was 0 balls.

***Conclusion:*** These values have a low level of specificity and may be applied only in case of preliminary established diagnosis. Economical expediency and rapid calculation should be attributed to benefits of the given method. This allows us to create monitoring system of patients' state in ambulatory conditions.

***Keywords:*** Inflammatory bowel disease, a system of monitoring, homocystein

---

***PP-704***

## *Serum 25 dihydroxy vitamin D3 as a predictor of severity in chronic liver disease patients*

**Sasi Kiran N.O.A, Giridhar Reddy Banda, Girinadh L.R.S**

*Department of Gastroenterology, King George Hospital, Vizag, India*

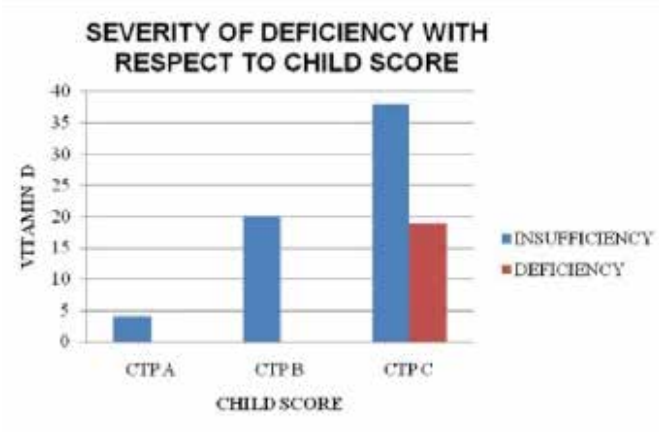
***Background/Aims:*** Recent epidemiologic studies have observed relationships between low vitamin D levels and multiple disease states. Vitamin D has diverse effects at various cellular mechanisms. Liver is a major organ participating in activation of vitamin D. In cirrhosis, synthesis of 25 O vitamin D is reduced which might affect the prognosis of liver disease of any etiology. In view of emerging interest in exploring the relationship between vitamin D and chronic liver disease and due to high prevalence of Vitamin D insufficiency and deficiency, this study was intended to assess vitamin D status in chronic liver disease patients

***Materials and Methods:*** The study was conducted in 100 patients admitted to our Liver Unit between January 2017 to December 2018 for the treatment of cirrhosis compensated or decompensated ascites, hepatic encephalopathy, variceal bleeding, and hepatorenal syndrome (HRS) and were studied prospectively. This is a cross-sectional prevalence study. Diagnosis of chronic liver disease was established by clinical, laboratory parameters, and ultrasonographic findings. Patients were included after satisfying inclusion and exclusion criteria. Study approved by hospital ethics committee. Serum Vitamin D3 levels was assessed by chemiluminescence method. Severity of liver failure was estimated by the Child-Pugh and the MELD scores. All patients were managed following standard protocols for each clinical decompensation. Data was analyzed using IBM SPSS version 21. Descriptive statistics are presented in the form of frequencies, percentages, mean, standard deviation, median and quartiles. $p<0.05$ is considered to be statistically significant.

***Results:*** Total 100 completed the study with 94 men (94%) and 6 women (6%) and mean age was 41.2 years. Vitamin D deficiency was in 38% and insufficiency in 62% of patients.

***Conclusion:*** This study suggests that there is a high prevalence of vitamin D deficiency in patients with cirrhosis with a clear relationship between the severity of liver disease and vitamin D deficiency as evidenced by the correlation between the child status and MELD scores. These findings may indicate that the deficiency correlates with the capacity of liver synthetic function

***Keywords:*** Vitamin D, cirrhosis, CTP score



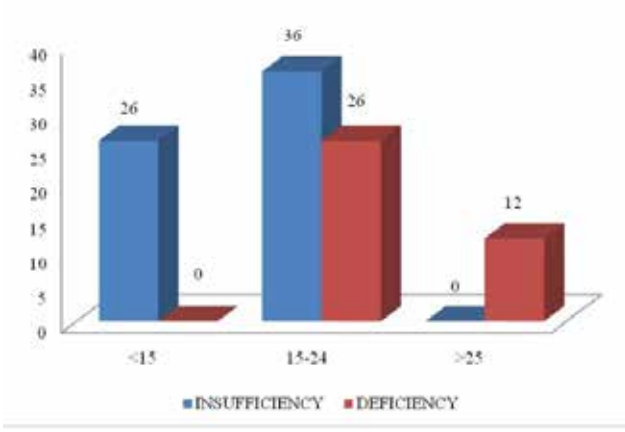




***Table 4.*** Baseline Characteristics

| Parameter | All Patients (n=100) |
|---|---|
| Mean Age (years) | 41.2 |
| Gender (M/F) | 94/6 (94%/06%) |
| Aetiology of Cirrhosis | |
| Alcohol (%) | 90 (90%) |
| Hepatitis (B%) | 10 (10%) |
| CTP Score | |
| A | 4 (4%) |
| B | 20 (20%) |
| C | 76 (76%) |
| Mean Albumin (g/dL) | 2.93 g/dL |
| Mean Hemoglobin | 10.2 g/dL |
| Ascites (%) | 82 (82%) |
| HRS (%) | 20 (20%) |
| GI Bleed (%) | 24 (24%) |
| H. Encephalopathy (%) | 64 (64%) |

***PP-705***

## *Positive feedback activation of notch signal by obesity enhances colorectal tumorigenicity*

**Dake Chu, Juan Zhang, Yun Wang**

*Department of Gastroenterology, Xi'an Jiaotong University, Shaanxi Sheng, China*

***Background/Aims:*** Colorectal cancer (CRC) is one of the most common malignancies worldwide. In recent years, the incidence rates of CRC are rapidly increasing in China, where has been experiencing a four-fold increase since the 1980s. Epidemiology investigation revealed that the steep rise of CRC incidence was significantly linked to increased obesity rates. Obese individuals are also confirmed to have increased risk for developing CRC and dying from this disease. However, the molecular interactions of obesity with CRC carcinogenesis and progression are still not well understood. The Notch signaling pathway is a fundamental and evolutionarily conserved intercellular communication pathway critical for many cellular processes includ-

ing survival, proliferation and differentiation, as well as cancer carcinogenesis and development. It has also been recognized as a key player in regulating body energy metabolism. Therefore, we aimed to investigate the potential interaction and mechanism of Notch signal between obesity and CRC tumorigenesis.

***Materials and Methods:*** In the present study, we randomly recruited 968 cases of clinical CRC specimens, 262 cases of colorectal intraepithelial neoplasia specimens and 185 cases of normal epithelium specimens from patients underwent surgery or colorectal endoscope in Xijing Hospital of Digestive Diseases, Fourth Military Medical University and the First Affiliated Hospital of Xi'an Jiaotong University. Tissue microarrays were constructed as standard procedure. Target protein expression was investigated by immunohistochemistry assay. Male and female C57BL/6J mice were randomly allocated into following groups respectively: mice fed with standard rodent chow; mice fed with high-fat diet (HFD, consisting of 60% kcal fat), mice fed with HFD treated with DBZ (a γ-secretase inhibitor pharmacologically inhibit Notch signaling), mice fed with HFD treated with DAPT (another γ-secretase inhibitor). Control mice were injected with equal volumes of DMSO. Energy intake and blood glucose of each mouse was measured. Potential differentially expressed proteins were screened by iTRAQ, and these identified proteins were then analyzed. Appropriate molecular and statistical investigations were utilized to verify the interaction mechanism.

***Results:*** Among the recruited clinical specimens, Notch1 intracellular domain and DLL4 was up-regulated in overweight participants compared with normal-weight ones, no matter in CRC, intraepithelial neoplasia or normal epithelium specimens. In overweight participants, Notch1 was increased from normal epithelium, intraepithelial neoplasia to CRC. Whereas this trend was not significant in participants with normal weight. Obesity was identified at week 5 in mice fed with HFD, which began to lead to upregulation of DLL4 and consequent increased Notch1 activity in colorectal tissues. While mice treated with DBZ and DAPT were almost resistant to HFD-induced obesity then. After 10 weeks, Notch1 activity in mice fed with HFD was significantly up-regulated compared with those fed with standard rodent chow. And the body weight of mice treated with DBZ and DAPT was significant lower than those fed with HFD. In addition, glucose tolerance and insulin sensitivity were also ameliorated by DBZ and DAPT treatment, through a PP2A-SHIP2 dependent manner. HFD fed was found to alter colorectal morphology, enhance epithelial proliferation and activate inflammatory pathways, which can be ameliorated by DBZ or DAPT induced Notch inhibition. Notch signaling inhibition was also found to alleviate β-catenin activation in colorectal epithelial induced by HFD fed.

***Conclusion:*** Notch signaling activation is linked to obesity in both nonmalignant participants and CRC patients. Obesity induced by HFD can increase Notch activity by DLL4-Notch1 pathway. While inhibition of Notch signaling can attenuate high fat diet–induced obesity by improving insulin resistance, suggesting an obesity-Notch positive feedback axis. In addition, Notch signaling inhibition can ameliorate morphology alternation, epithelial proliferation, inflammatory pathways and β-catenin activation induced by HFD. These results indicate that activation of Notch signaling by its positive feedback with obesity could be a molecular bridge that connecting obesity and CRC.

***Keywords:*** Notch, obesity, colorectal cancer, positive feedback, carcinogenesis

---

***PP-706***

## *Fulminant ulcerative colitis initially presenting as bullous pyoderma gangrenosum: A case report and review of literature*

**Joseff Karl Fernandez, Ira Yu**

*National Kidney and Transplant Institute, Quezon City, Metro Manila, Philippines*

Ulcerative colitis (UC) is a disease which is characterized by recurring episodes of inflammation of the mucosal layer of the colon clinically presenting as chronic diarrhea and hematochezia. It is associated with various extra-colonic manifestations including Pyoderma Gangrenosum (PG), a very rare dermatologic condition with a reported incidence of 3 to 10 cases per million per year. It is characterized as by inflammation and ulcerative destruction of the skin and has

been reported to occur in 0.5-2%of patients with UC. The etiologies of both disease entities have not been entirely elucidated, however, recent studies show that an immune-mediated process might be a likely explanation. Among the reported rare cases of PG in UC, skin eruptions occurred in patients already known to have UC. Here we present a case of a previously well 48-year old femaleinitially presenting with bullous pyoderma gangrenosum of the right thigh, which was eventually associated with recurrent episodes of hematochezia prompting colonoscopy. Biopsy results of the skin and colonic ulcers were consistent with PG and UC respectively. The massive gastrointestinal bleeding was refractory to initial treatment with Mesalazine and Methylprednisolone, but was successfully treated with the biologic agent Infliximab. Wound healing of the right thigh also improved with Infliximab and the patient was eventually able to undergo successful skin grafting of the defect caused by the PG. The significant response of Ulcerative colitis and Pyoderma gangrenosum to the anti-TNF-a Infliximab in this case is consistent with recent literature suggesting that these two conditions are likely due to dysregulated immune pathways. Moreover, this case tells us that a high clinical suspicion for PG should alert clinicians that other autoimmune or inflammatory conditions including UC may also be present in these cases.

***Keywords:*** Pyoderma gangrenosum, ulcerative colitis, inflammatory bowel disease, infliximab

---

***PP-707***

## *Risk stratification in clinical approach to the patients with non-obstructive dysphagia regarding to esophageal manometry; Chicago Classification Version 3.0*

**Marjan Mokhtare, Maryam Rafieemanesh, Mansour Bahardoust, Behdad Behnam, Sohrab Aghabeigi**

*Iran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Non-obstructive dysphagia (NOD) is defined by a difficult swallowing in the absence of luminal obstruction. Manometery especially high resolution type, should be considered as a second study when mucosal and histologic findings are normal. Chicago classification has been made to interpret manometery metrics objectively. This study aims to investigate the role of risk factors in clinical approach to the patients with non-obstructive dysphagia based on Chicago classification version 3 criteria.

***Materials and Methods:*** This study was a retrospective cross sectional study on adult patients (age≥18 years) who present with NOD. Patients with history of predominant symptoms such as heartburn, regurgitation, chest pain, any structural lesions on upper endoscopy, BMI>35Kg/$m^2$, pregnancy, lactation, esophageal diverticulum, malignancy, esophageal and/or gastric surgery, severe cardiac diseases, pulmonary and kidney disease, uncontrolled diabetes mellitus and hypothyroidism, uncooperative patients and/or incomplete data were excluded. Demographic, behavioral, anxiety and depression Beck score, and manometry findings were analyzed by Statistical Package for Social Sciences version 16.

***Results:*** Overall, 178 patients were enrolled in this study. The mean age was 47.31±15.47 years. Majority of them were married female and educated above diploma. Chest pain was the most common co-symptoms in 59.6%of the patients. The most common diagnosis were normal in 77 (43.3%), followed by esophagogastric junction outflow obstruction in 22 (12.37%) and achalasia in 18 (10.11%). Abnormal findings were significantly found in male (p=0.027), elderly (p=0.038), calcium channel blocker users (p=0.027), permanent dysphagia (p=0.015) and dysphagia to the both solid and liquid food (p=0.022).

***Conclusion:*** Normal manometry was found in nearly half of our patients who presents with NOD. In clinical approach, factors such as male gender, elderly, usage of calcium channel blocker, permanent dysphagia and dysphagia to the both solid and liquid diets is more related to the esophageal motility disorders.

***Keywords:*** Dysphagia, high resolutional esophageal manometery, Chicago Classification

***Table 1.*** Demographic, behavioral, past medical history, medication and symptoms

| | Frequency (%) | | Frequency (%) |
|---|---|---|---|
| Gender | | Heartburn | |
| Male | 72 (40.4%) | Yes | 101 (56.7%) |
| Female | 106 (59.6%) | No | 77 (43.3%) |
| Age (Mean±SD) (year) | 47.31 (15.47) | Regurgitation | |
| BMI* (Mean±SD) (kg/m$^2$) | 24.48 (4.20) | Yes | 105 (59%) |
| Alcohol | | No | 73 (41%) |
| Positive | 14 (7.9%) | Chest pain | |
| Negative | 164 (92.1%) | Yes | 72 (40.4%) |
| Smoking | | No | 106 (59.6%) |
| Yes | 22 (12.4%) | Ca Channel Blocker | |
| No | 156 (87.6%) | Yes | 12 (6.7%) |
| Educational level | | No | 166 (93.2%) |
| Illiterate | 13 (7.3) | Nitrate | |
| < Diploma | 39 (22%) | Yes | 7 (3.9%) |
| Diploma | 64 (35.9%) | No | 171 (6%) |
| Bachelor | 56 (31.4%) | Proton Pump Inhibitor | |
| Bachelor< | 6 (3.4%) | Yes | 55 (30.8%) |
| Diabetes mellitus | | No | 123 (69%) |
| Yes | 19 (10.7%) | SSRI/TCA** | |
| No | 159 (89.3%) | Yes | 30 (16.8%) |
| Hypothyroid | | No | 148 (83%) |
| Yes | 20 (11.3%) | Prokinetics | |
| No | 158 (88.7%) | Yes | 15 (8.4%) |
| | | No | 163 (91.6%) |

*BMI: Body mass index

**SSRI: Selective serotonin reuptake inhibitor, TCA: Tricyclic antidepressants

***Table 2.*** Univariate analysis of associated factors with esophageal motility disorders.

| | Normal manometry | Abnormal manometry |
|---|---|---|
| | OR (95%CI) p | OR (95%CI) p |
| Gender (female vs male) | 2.61 (1.25-5.16) 0.023 | 1.39 (1.10-4.5) 0.027 |
| Alcohol (positive) | 1.8 (0.55-7.1) 0.42 | 2.1 (0.87- 9.1) 0.34 |
| Age> 65 years | 3.1 (1.25-8.5) 0.46 | 3.12 (1.4-6.7) 0.038 |
| Education Level (less than Diploma) | 1.67 (1.13-4.65) 0.032 | 2.1 (0.88-7.5) 0.068 |
| Smoking (positive) | 1.2 (0.87-10.88) 0.91 | 3.1 (1.4-9.63) 0.81 |
| Marriage status (married) | 3.4 (0.67-11.8) 0.51 | 3.1(1.25-8.5) 0.46 |
| Regurgitation (yes) | 1.79 (1.14-4.89) 0.62 | 1.4 (0.81-9.36) 0.7 |
| Chest Pain | 1.61 (1.04-8.81) 0.28 | 1.91 (1.24-5.11) 0.3 |
| Hypothyroidism | 0.48 (0.31-3.58) 0.45 | 0.78 (0.39-4.57) 0.26 |
| DM | 1.28 (1.15-7.15) 0.49 | 1.09 (0.57-1.87) 0.45 |
| Medications | 1.3 (0.85-7.15) 0.33 | 0.89 (0.74-6.2) 0.39 |
| Prokinetics (no) | 5.6 (0.85-11.2) 0.19 | 6.5 (1.25-9.6) 0.28 |
| Proton pomp inhibitor | 2.56 (1.58-10.8) 0.38 | 4.8 (2.5-9.97) 0.42 |
| Antidepressant | 2.11 (1.12-9.32) 0.15 | 3.1 (1.18-9.48) 0.19 |

| | | |
|---|---|---|
| Nitrate | 3.15 (1.08-10.97) 0.12 | 3.57 (1.31-11.2) 0.16 |
| Anxiety | 4.3 (128-10.11) 0.22 | 41 (1.36-9.58) 0.37 |
| Depression | 2.28 (1.36-6.98) 0.35 | 1.97 (1.02-8.63) 0.29 |
| Ca Channel Blocker | 1.72 (1.14-3.6) 0.032 | 1.8 (1.37-4.5) 0.027 |
| Permanent Dysphagia (yes) | 3.0 (2.0-7.21) 0.040 | 3.9 (1.38-6.35) 0.015 |
| Intermittent Dysphagia (yes) | 5.2 (2.42-10.8) 0.032 | 3.12 (1.4-6.7) 0.038 |
| Progressive Dysphagia (yes) | 1.32 (0.88-5.25) 0.092 | 2.1 (1.2-5.55) 0.088 |
| Solid Dysphagia (yes) | 2.39 (0.88-6.25) 0.36 | 1.98 (1.25-6.3) 0.53 |
| Solid and Liquid Dysphagia (yes) | 1.42 (0.92-5.41) 0.089 | 2.1 (1.02-3.66) 0.022 |
| Heartburn (yes) | 2.9 (1.22-5.98) 0.016 | 1.3 (0.69-2.4) 0.12 |

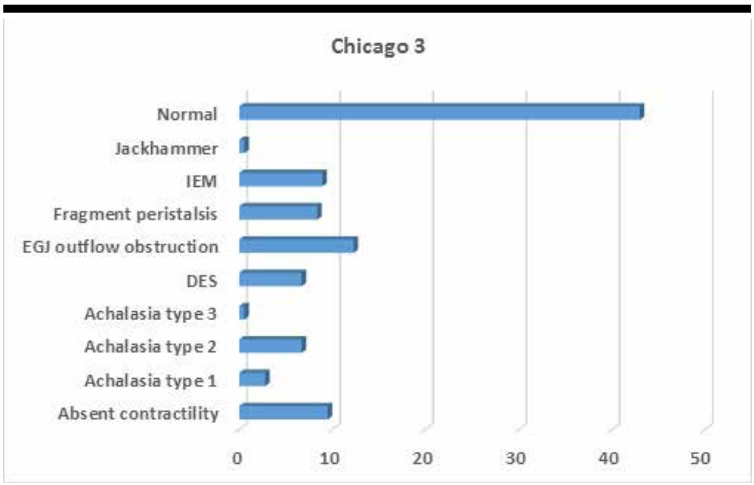



**Figure 1.** HREM diagnosis regarding Chicago classification version 3 (DES: diffuse esophageal spasm, IEM: ineffective esophageal motility, EGJ: esophagogastric junction.

***PP-708***

## *Hypokalemic quadriparesis: Etiology celiac disease*

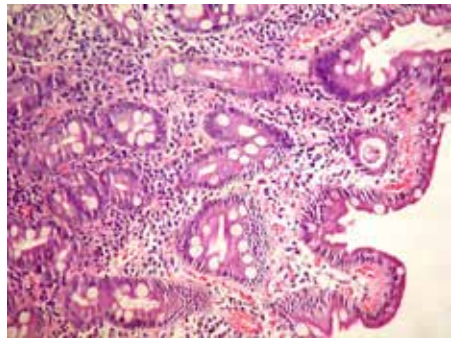
**Uttayan Chakrabarti, Manisha Bais Thakur**

*Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India*

***Abstract:***
Celiac disease, an autoimmune disorder induced by dietary gluten, characterized by a chronic inflammatory state of the small intestinal mucosa that resolves with gluten free diet, has been found to be a cause of hypokalemic paralysis which should be considered in any patient presenting with a sudden onset, areflexic, pure motor weakness involving one or more limbs, without alteration in the level of consciousness or sphincter function, and laboratory evidence of hypokalaemia. Here we report a case of a 13 year old male with history of 2-3 episodes of painless watery loose stools, on and off since 2 years of age who presented with the complaints of 7-8 episodes of loose stools since 7 days, weakness in all four limbs since last 4 days. Examination revealed a stunted growth, pallor, mild dehydration, diminished power in the limbs with absent deep tendon reflexes. Investigations revealed iron deficiency anaemia, hypokalemia with ECG changes, hypoproteinemia, hypertransaminasemia, metabolic acidosis. A negative urine anion gap and a TTKG<2 ruled out renal tubular acidosis. Patient responded

to potassium supplementation with complete motor recovery within next 72 hours along with appearance of deep tendon reflexes. An upper GI endoscopy revealed absence and scalloping of duodenal folds, D2 biopsy was consistent with Celiac disease, Marsh grade 3b with a markedly raised anti-tTG. So this was a patient who has been an undiagnosed case of Celiac disease, accounting for his loose stools, anaemia and stunted growth, presented to us in Celiac crisis which precipitated the hypokalemic quadriparesis, while the hypertransaminasemia was due to Celiac hepatitis. Prompt recognition of the condition prevented the patient from succumbing to the life-threatening celiac crisis. He was initiated and discharged on Gluten free diet and after 1 month of follow up, his loose stools had completely subsided, had gained 4kg weight and 3cm height with normalisation of the lab parameters.

***Keywords:*** TTKG (Transtubular potassium gradient), celiac hepatitis, celiac crisis, gluten free diet



***PP-709***

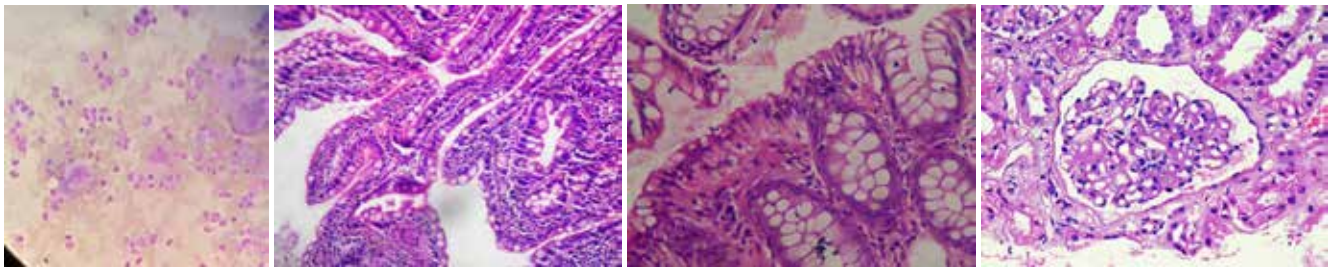
## *A rare case of late onset celiac disease with multi-system involvement*

**Uttayan Chakrabarti, Manisha Bais Thakur, Geetika Khanna**

*Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India*

Celiac Disease is an autoimmune disorder due to hypersensitivity to gluten. Gluten free diet usually reverses the pathological changes but in 7-30% of cases when there is no reversal one should look for the evidence of Microscopic colitis. Celiac disease is also associated with multiple haematological and renal abnormalities and here we report an atypical case of Celiac presenting in an unusual age with multisystem involvement where a 50 year old male presented with multiple episodes of loose stools and lower limb swelling since 6 months, investigations revealed features of malabsorption syndrome with iron deficiency anaemia, hypoproteinemia, hypocalcemia, low vitamin D3 along with thrombocytopenia with a normal urine examination. An UGIE along with biopsy and serology were compatible with Celiac disease(Marsh Grade 2),was put on gluten free diet following which only stool frequency decreased, got readmitted after 2 months inspite of being compliant to gluten free diet, with 8-10 episodes of loose stools, bilateral pedal edema, with fever and decreased urine output since 7days.Investigations revealed a persistent thrombocytopenia, neutrophilic leucocytosis, deranged KFT with urine showing albuminuria, dysmorphic RBCs. USG W/A revealed increased bilateral renal echotexture with gross ascites. Coloscopy done to look for the cause of persistent diarrhea showed diminished vascular pattern in rectosigmoid, biopsy suggestive of collagenous microscopic colitis. Kidney biopsy revealed mesangioproliferative glomerulonephritis with acute kidney injury. Bone marrow biopsy revealed normocellular marrow with increase in the number of megakaryocytes, some showing abnormal morphology, suggestive of ITP. So a final Diagnosis of Celiac disease with Microscopic colitis with Mesangioproliferative Glomerulonephritis with ITP was made. Patient was initiated on steroids to which the response was dramatic with resolution of all his symptoms and after 3 months of follow up there was resolution of all biochemical and haematological parameters. tTG antibodies induce TLR4 activation and the TLR4 expression in platelets leads to thrombocytopenia. PDFG levels which is found to be elevated in ITP, increases cell proliferation which explains the mesangial proliferation.

***Keywords:*** Microscopic colitis, mesangioproliferative glomerulonephritis, ITP, TLR4, PDGF



***PP-710***

## *A novel missense lipa mutation found using exome sequencing in siblings with NAFLD/cirrhosis*

**Reza Malekzadeh, Amir Anoushiravani**

*Digestive Disease Research Institute, Tehran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Lysosomal acid lipase (LAL) deficiency is a rare autosomal lysosomal storage disease. Few studies have suggested a strong association between impaired LAL activity and fatty liver disease. We described a novel mutation in the LIPA gene which causes liver cirrhosis or fatty liver disease.

***Materials and Methods:*** A 28-year-old lady referred for low platelet count and was found to have cirrhosis. Six other family members also had cirrhosis or fatty liver disease. The family pedigree is shown in Figure 1. Blood and tissue samples were collected from the family members with informed consent. We sequenced 7 members of this family, all of whom were reported to have either fatty liver and/or liver cirrhosis, using genome-wide mapping to isolate candidate loci.

***Results:*** The only gene shared among the six family members was a damaging missense in the W310R part of LIPA gene. The proband was homozygote for the mutation, since she was the product of a consanguineous marriage, and 5 of the 6 other affected family members were heterozygote for this mutation. The proband had very high LDL levels.

***Conclusion:*** Lysosomal acid lipase deficiency has a variable age of onset and is often under recognized. The symptoms can include hepatomegaly, elevated liver enzymes, and dyslipidemia. We can make the diagnosis based on the lysosomal acid lipase activity or the lipomutation analysis, and enzyme replacement therapy is currently being investigated. It is important to make the diagnosis because it has implications for liver monitoring and potentially for therapeutic approaches under development.

***Keywords:*** Fatty liver, LIPA, gene, mutation, cirrhosis

***PP-711***

## *Independent and combined effects of multiple risk factors for pancreatic cancer in a middle east country*

**Zahra Momayez Sanat, Maryam Jameh Shorani, Sahar Masoudi, Akram Pourshams.**

*Liver and Pancreatobiliary Diseases Research Center, Digestive Diseases Research Institute, Tehran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Pancreatic cancer (PC) is a deadly and globally increasing cancer. The causes of PC are still insufficiently known, however smoking, diabetes mellitus (DM) and obesity have been identified as risk of PC, mostly in the developed countries. We studied risks of PC in Iran.

***Materials and Methods:*** Cases and controls were selected consequently from patients who were referred to a tertiary referral hospital in Tehran, Iran, from January 2012 to January 2018. Information on risk factors was collected by a personal interview. Logistic regression models was used to calculate odds ratios (ORs) and 95% confidence intervals (CIs).

***Results:*** We recruited 470 newly histopathological diagnosed pancreatic adenocarcinoma and 526 matched (age and gender) controls. After adjustment for potential confounders, cigarette smoking [OR; 1.65 (1.15-2.38)], opium use [OR; 1.58(1.06-2.35)], history of DM >2 years [OR 1.99 (1.31-3.02)], and having family history of any kind of cancer in a first-degree relatives [OR; 1.53 (1.14-2.05)] were associated with an increased risk of PC. We did not find an association between obesity [OR; 0.99(0.71-1.38)] and PC. A synergistic interaction between DM and family history of a cancer was found [OR; 2.78 (1.35-5.72)]. Approximately 4.6%, 5.9%, 8.2%, and 10.9%of PC were related to cigarette smoking, opium use, DM and family history of a cancer, respectively.

***Conclusion:*** This study supports that smoking, opium use, DM and family history are associated with PC risk, however same as many studies from the Asian countries, obesity is not associated with PC in our population. There is a critical need to pinpoint modifiable risk factors of PC in different countries to help policy makers for implanting relevant strategies to reducing risks of PC.

***Keywords:*** Pancreas cancer, risk factors

---

***PP-712***

## *Implementation of a longitudinal national registry in iranian IBD patients*

**Amir Anoushiravani[1], Homayoon Vahedi[1], Reza Malekzadeh[1], Alireza Sima[1], Anahita Sadeghi[1], Sudabeh Alatab[1], Nasser Ebrahimi Daryani[2], Payman Adibi[3], Iradj Maleki[4], Hassan Vossoughinia[5], Hafez Fakheri[4], Abbas Yazdanbod[6], Seyed Alireza Taghavi[7], Mahshid Naser[1], Mohammad Hassan Somi[8], Kazem Zendehdel[9], Masoud Mohammad Malekzadeh[1]**

*[1]Tehran University of Medical Sciences, Digestive Disease Research Institute, Tehran, Iran*
*[2]Tehran University of Medical Sciences, Tehran, Iran*
*[3]Isfahan University of Medical Sciences, Isfahan, Iran*
*[4]Mazandaran University of Medical Sciences, Mazandaran, Iran*
*[5]Mashhad University of Medical Sciences, Mashhad, Iran*
*[6]Ardabil University of Medical Sciences, Ardabil, Iran*
*[7]Shiraz University of Medical Sciences, Shiraz, Iran*
*[8]Tabriz University of Medical Sciences, Tabriz, Iran*
*[9]Tehran University of Medical Sciences, Ministry of Health And Medical Education, Tehran, İran*

***Background/Aims:*** Registries are of significant importance in chronic diseases, enhancing clinicians and researchers with the tools necessary for systematic comparison at the national level. The incidence of inflammatory bowel disease (IBD) is increasing in Iran, despite its stabilizing rate in some developed countries. The Iranian Registry of Crohn's and Colitis (IRCC) is a prospective multicenter nationwide registry aiming to determine risk factors of this disease and its severity and complications.

***Materials and Methods:*** More than 100 gastroenterologists from different provinces have registered 1700+ IBD patients in IRCC, a longitudinal consented registry based in DDRI. Detailed data on risk factors, medications, surgeries, complications, and phenotypes are documented in the electronic health record.

***Results:*** Over 1700 IBD patients (68% UC, 22% Crohn's, 0.2% indeterminate) have been enrolled (55.5% men). About 25.8% were younger than 30 and 10.4% were above 60-years-old. Anti-TNFs are currently used in 18% (14.5% CinnoRA®, 10.3% Remicade®). First degree family members had IBD in 13.4% and appendectomy was done in 7.3%.

***Conclusion:*** To our knowledge, IRCC is the first national IBD registry in the Middle East. It has resulted in detailed documentation of different IBD phenotypes, the effectiveness of treatment strategies, and risk factors involved in disease

severity and complications in real life. IRCC is enrolling about 250 patients each month and has enabled us to do fundamental research with international collaborations, guiding physicians and policy makers worldwide.

***Keywords:*** IBD, registry, Iran, ulcerative colitis, Crohn's disease

***PP-713***

## *Lower gastrointestinal bleeding (LGIB) in Bangladeshi pediatric patients undergone colonoscopy with recent updates*

**Muhammad Yousuf, Anwarul Azim, Mosleh Uddin Shahed**

*Chattagram Maa-O-Shishu Hospital Medical College, Chittagong, Bangladesh*

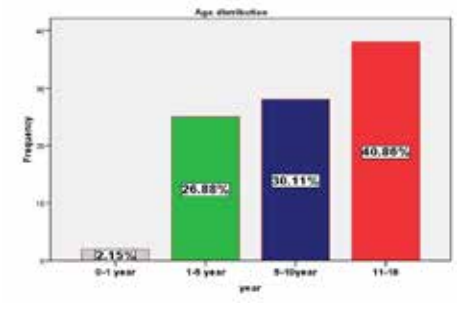
***Background/Aims:*** Lower gastrointestinal bleeding (LGIB) in children is a common clinical problem. Approximately 0.3% of children are admitted in emergency department with LGIB. Fortunately, most bleeding cases are self-limiting and 80% of LGIB are routinely discharged from emergency department. But some life threatening LGIB can occur in Meckel's diverticulum, variceal hemorrhages, acute intestinal obstruction, severe ulcerative colitis etc. Over the last 10 years, a number of improvements in diagnosis and management of GIB in general occurred. To analyze the outcome of clinical and therapeutic aspects of lower gastrointestinal bleeding (LGIB) in Bangladeshi pediatric patients undergone colonoscopy.

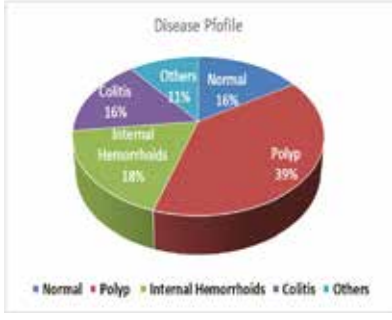
***Materials and Methods:*** A retrospective analysis of all pediatric patients of LGIB up to 18 years of age undergone colonoscopy between the year 2013-2018 at CMPH, CMSOGH & Medical Center, Chittagong were included.

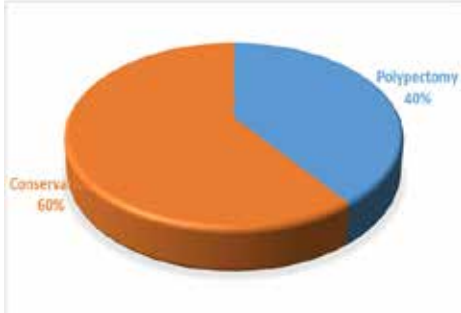
***Results:*** Over the last five years (2013-2018), a total of 93 pediatric patients with LGIB who had undergone colonoscopy were included for the study. Of these, 66% were male and 34% female. Minimum of 2.15% of children with LGIB in the age group of 0-1 year and maximum 40.86% in age group of 11-18 years was seen with increasing age frequency. Of the total 93 patients, 39%had colonic polyps, 18% internal hemorrhoids, 16%colitis, others 11% and 16% had normal Colonoscopy. As therapeutic outcome, 40% had colonoscopic polypectomy and rest 60% were treated with conservative management.

***Conclusion:*** In Bangladeshi pediatric patients of LGIB undergone colonoscopy revealed high male predominance, occurring in older children with maximum incidence of colonic polyps having excellent outcome of colonoscopic polypectomy.

***Keywords:*** Bangladeshi pediatric lower GI bleeding patients, colonoscopy.



***PP-714***

## *Impact of ≥7%weight loss in the management of non-alcoholic fatty liver disease in type 2 diabetics*

**Kuhu Roy[1], Uma Iyer[2], Tushar Vaishnav[3]**

*[1]Independent Nutrition Consultant, Baroda, Gujarat, India*
*[2]Department of Foods and Nutrition, The Ms University Of Baroda, Gujarat, India*
*[3]Urvi X-ray and Radiology Clinic, Baroda, Gujarat, India*

***Background/Aims:*** Non-alcoholic fatty liver disease (NAFLD) in type 2 diabetics is associated with adverse cardiometabolic and hepatic outcomes. Weight loss is used as a first line therapy for its management. There is limited Indian data on these lines and therefore a study was conducted to assess the impact of ≥7% weight loss in the management of NAFLD in type 2 diabetics.

***Materials and Methods:*** Type 2 diabetic NAFLD subjects (ultrasonographic diagnosis, n=30) were voluntarily enrolled from a diabetic clinic. It was a pre-test post-test experimental arm only study. Standard care plus ≥7% weight loss was targeted in four months. Data on anthropometry, diet, physical activity, biochemical profile and abdominal ultrasound was obtained pre and post intervention.

***Results:*** About 60% lost ≥7%weight and prevalence of metabolic syndrome reduced (77.7% to 44.4%, p 0.043) along with reduction in liver span (179.1 to 167.3mm, p 0.004) and increase in high-density lipoprotein cholesterol (from 48.2 at baseline to 53.1mg/dl at four months, p 0.0007). Subjects with ≥7%weight loss had a significant increase in soluble fibre intake (p 0.017) and proportion of protein intake (P 0.034) and they ate out less frequently than the ones who lost <7% weight (p 0.019). Gamma glutamyl transferase reduced significantly from 28 to 22.4U/L in subjects with ≥7% weight loss (p 0.007), becoming significantly lower from subjects who had <7% weight loss (22.4 vs. 32.3U/L, p 0.033).

***Conclusion:*** ≥7% weight loss helped improve the liver status and combat the progression of NAFLD in type 2 diabetics.

***Keywords:*** ≥7% weight loss, type 2 diabetics, non-alcoholic fatty liver disease

---

***PP-715***

## *Characterization of the intestinal microbiota: a signature in fecal samples from patients with irritable bowel syndrome*

**Kamran Bagheri Lankarani[1], Mina Hojat Ansari[2], Mohammad Reza Fattahi[2], Mehregan Ebrahimi[3], Ali Reza Safarpour[2]**

*[1]Health Policy Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran*
*[2]Gastroenterohepatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran*
*[3]Department of Biology, Shiraz University, Shiraz, Iran*

***Background/Aims:*** Irritable bowel syndrome (IBS) is a common bowel disorder which is usually diagnosed through the abdominal pain, fecal irregularities and bloating. Alteration in the intestinal microbial composition is implicating to inflammatory and functional bowel disorders which is recently also noted as an IBS feature. Owing to the potential importance of microbiota implication in both efficiencies of the treatment and prevention of the diseases, we examined the association between the intestinal microbiota and different bowel patterns in a cohort of subjects with IBS and healthy controls.

***Materials and Methods:*** Fresh fecal samples were collected from a total of 50 subjects, 30 of whom met the Rome IV criteria for IBS and 20 Healthy control. Total DNA was extracted, and library preparation was conducted following the standard

protocol for small whole genome sequencing. The pooled libraries sequenced on an Illumina Nextseq platform with a 2×150 paired end read length. The obtained raw read files were filtered, trimmed, and analysed using several bioinformatics program. The R program were then used to statically analyse the final results.

***Results:*** The analysis revealed that the majority of obtained sequences were assigned to bacterial taxa. However, our finding highlighted the noticeable microbial taxa variation among the studied groups. The result, therefore, suggests a significant association of the microbiota with symptoms and bowel characteristics in patients with IBS.

***Conclusion:*** These alterations in fecal microbiota could be exploited as a biomarker for IBS or its subtypes and suggest the modification of the microbiota might be integrated into prevention and treatment strategies for IBS**.**

***Keywords:*** Irritable bowel syndrome, intestinal microbiota, small whole genome sequencing, fecal samples, illumina

---

***PP-716***

## *New ligation technique using a loop clip without adhesive for ulceration following endoscopic submucosal dissection of the colon*

**Satoshi Abiko, Akimitsu Meno, Akane Shidou, Souichirou Oda, Sonoe Yoshida, Ayumu Yoshikawa, Kazuaki Harada, Naoki Kawagishi, Itsuki Sano, Hisashi Oda, Takuto Miyagishima**

*Kushiro Rosai Hospital, Hokkaido, Japan*

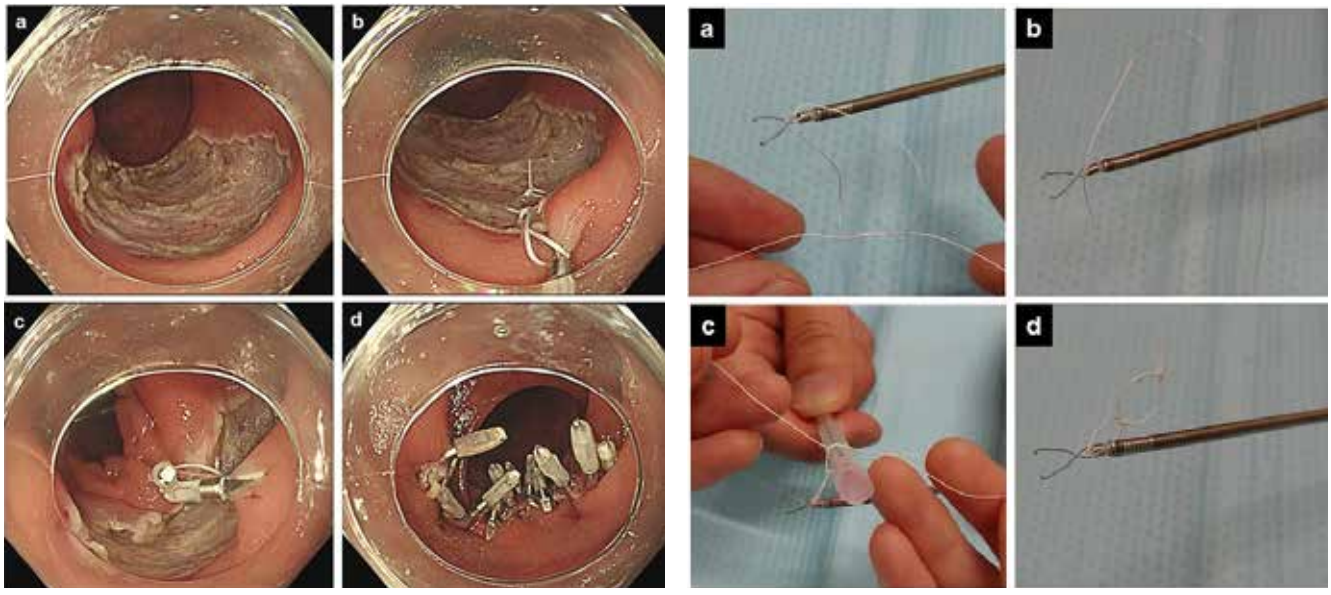
***Background/Aims:*** Several reports have shown that inflammation following endoscopic submucosal dissection (ESD) of the colon can be alleviated by closing the ulceration following ESD. In recent years, various ligation techniques for post- ESD ulceration have been reported; however, to date, no technique has been established owing to the complexity involved and the fact that an expensive device is required. We devised a new ligation technique using a loop clip without an adhesive agent for ulceration following ESD of the colon and reported the usefulness of the technique.

***Materials and Methods:*** Among 23 patients who underwent ESD of the colon at the Kushiro Rosai Hospital Department of Gastroenterology between May 2018 and November 2018, we included 9 patients who underwent ligation using the loop clip for the wound following ESD. First, a clip (HX-610-90, OLYMPUS) is attached to a rotatable clip-fixing device. The clip is deployed, and before deployment is completed, a thread, which is tied loosely in advance, is passed through the portion intersecting the clip arm at the base of the clip and tied. Next, a loop of appropriate length is created using the remaining thread. The clip is drawn back again into the rotatable clip-fixing device. This completes the loop clip without the use of an adhesive agent. The loop clip is applied to the proximal side of the post- ESD ulcer area. Clipping of the mucous membrane on the distal side is performed by applying a different clip to the loop line. A clip is then added to tighten the ligation, thereby completing the ligation.

***Results:*** The subject sample had a mean age of 67.1 (range, 48–83) years and a male-to-female ratio of 7:2. Oral antithrombotic agents were administered to one patient (11.1%). The lesion site was C/A/T/D/S/R:1/1/2/0/4/1; the mean length of the resected specimen was 2.6 (range, 1.8–3.5) cm; operability was extremely poor in T cases; and excluding one patient in whom closure was incomplete, complete closure was achieved in 8 patients (88.9%). The mean duration of ligation was 15 (range, 4–31) min, and there were no instances of delayed procedural accidents, such as delayed perforation, post-ESD coagulation syndrome or delayed bleeding.

***Conclusion:*** We believe that the ligation technique using a loop clip without an adhesive agent for ulceration following ESD of the colon is a useful technique that is simple and cost effective.

***Keywords:*** Colon, ESD, ligation




***PP-717***

## *Controlling nutritional status (CONUT) score is a prognostic marker for acute pancreatitis*

**Mustafa Zanyar Akkuzu, Hatice Rızaoğlu Balcı, Ferzan Aydın, Osman Özdoğan, Serkan Yaraş, Enver Üçbilek, Fehmi Ateş, Orhan Sezgin, Engin Altıntaş**

*Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*

***Background/Aims:*** Controlling Nutritional Status (CONUT), as calculated from serum albumin, total cholesterol concentration, and total lymphocyte count, was previously shown to be useful for nutritional assessment. The current study investigated the potential use of CONUT as a prognostic marker in acute pancreatitis (AP).

***Materials and Methods:*** 351 AP patients' data between January 2014 – December 2018 would were welcome. CONUT was retrospectively calculated in consecutive hospitalized AP patients. The patients were divided into two groups: CONUT-high (≥3) and CONUT-low (≤2), according to time-dependent receiver operating characteristic (ROC) analysis. AP severity and disease-related organ failure were assessed with the Atlanta 2012.

***Results:*** According to the CONUT score, normal nutritional state was found in 296 patients, high state in 55. There were 291 mild pancreatitis and 60 moderate/severe pancreatitis. Of the 307 patients with normal CONUT score, 41 (13.4%) had moderate-severe AP, while 21 (45.7%) of 46 patients with high CONUT scores had moderate-severe AP ($p<0.001$). Similarly, APACHE score was> 8 in 21 (45.7%) of 46 patients with high CONUT scores ($p=0.001$). Patients with a high CONUT score had more antibiotic use ($p=0.006$), more ICU admission ($p=0.03$), more organ failure ($p=0.022$); there was no difference in terms of surgical need and local complications. But no patients died.

***Conclusion:*** CONUT is useful for not only estimating nutritional status but also a prognostic marker for predicting the severity and the outcome of AP.

***Keywords:*** Acute pancreatitis, conut score, nutrition, severity

***PP-718***

## *An intervention to increase hepatitis C virus diagnosis and treatment uptake among people in custody in Iran*

**Hossein Poustchi[1], Maryam Alavi[2], Sanam Hariri[1], Gholamreza Roshandel[3], Zahra Mohammadi[1], Abdolreza Fazel[5], Taghi Amiriani[3], Abolfazl Bazazan[6], Shahin Merat[1], Reza Malekzadeh[4]**

*[1]Liver and Pancreatobiliary Disease Research Center, Digestive Diseases Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*
*[2]The Kirby Institute, University of New South Wales Sydney, Sydney, New South Wales, Australia*
*[3]Golestan Research Center of Gastroenterology and Hepatology, Golestan University of Medical Sciences, Gorgan, Iran*
*[4]Digestive Oncology Research Center, Digestive Diseases Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*
*[5]Cancer Research Center, Golestan University of Medical Sciences, Gorgan, Iran*
*[6]Department of Health, Golestan State Prisons and Security and Corrective Measures Organization, Gorgan, Iran*

***Background/Aims:*** Hepatitis C virus (HCV) diagnosis and treatment is sub-optimal in prisons. The aim of this study was to evaluate the impact of an innovative intervention on HCV diagnosis and treatment uptake in a large provincial prison in Northern Iran.

***Materials and Methods:*** Between July and December 2018, in the central prison of Gorgan, all inmates received HCV antibody testing and venepuncture for HCV RNA testing (antibody-positive only). AST to Platelet Ratio Index (APRI) was used for liver disease assessment. People with HCV infection received direct-acting antiviral (DAA) therapy (sofosbuvir/daclatasvir). Response to therapy was measured by sustained virological response (SVR), defined as undetectable HCV RNA 12 weeks post-treatment (SVR12). If released during or after DAA therapy, participants were referred to the local health network for treatment completion.

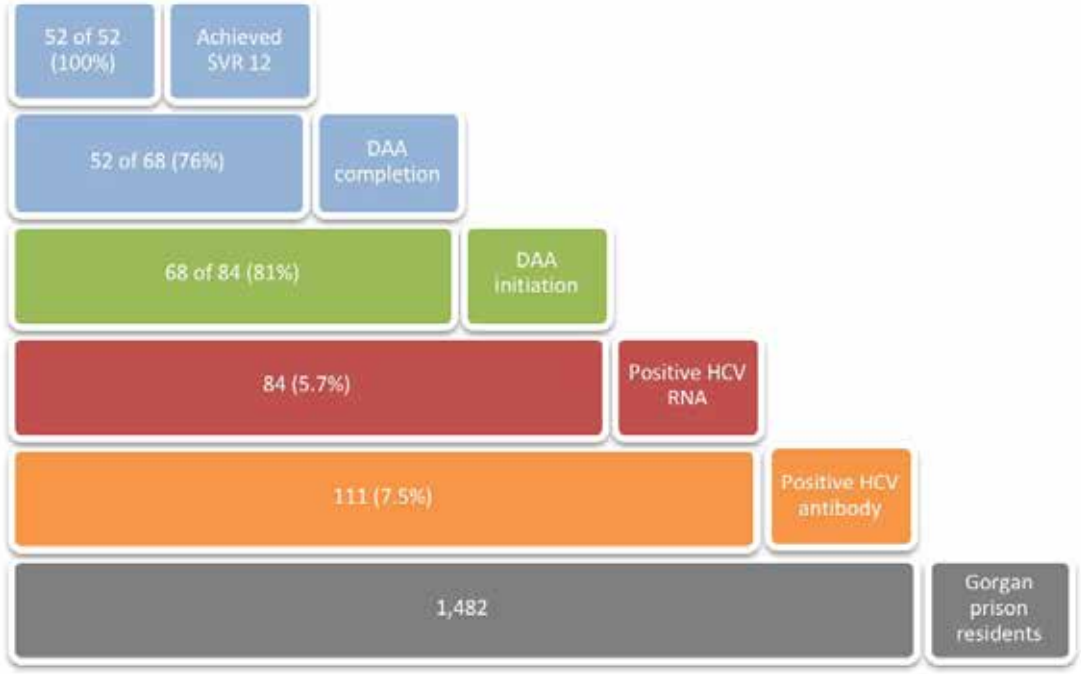



**Figure 1.** Hepatitis C Virus screening, diagnosis, and treatment uptake among Gorgan prison resident.

***Results:*** Among 1,482 prison residents, 95% were male, the median age was 35 (IQR: 29-41=12 years), 72% had a history of drug use, and 37% had used drugs in the previous year. Prevalence of HCV antibody and HCV RNA were 7.5% (n=111) and 5.7% (n=84), respectively. Among participants with HCV infection, 81% (n=68) initiated DAA therapy and 19% (n=16) were released before treatment initiation. Among those who initiated treatment, 76% (n=52) completed their DAA course in prison and 24% (n=16) were released during therapy. SVR 12 was 100% among participants who completed HCV treatment in prison, including n=10 who had used drugs in the previous year. SVR 12 could not be measured among participants who were released prior to treatment completion, given the provision of incorrect contact information.

***Conclusion:*** In a provincial prison with no health assessment for HCV infection, treatment uptake was remarkably high, highlighting the feasibility of HCV treatment in custodial settings. Ongoing efforts are needed to expand HCV elimination programs in Iranian prisons and optimize post-release engagement with care.

***Keywords:*** Hepatitis C elimination, direct-acting antivirals, prison healthcare

---

***PP-719***

## *A simple risk-based strategy for identifying people with hepatitis c virus infection in Iranian prisons*

**Hossein Poustchi[1], Maryam Sharafkhah[2], Sanam Hariri[1], Maryam Alavi[3], Gholamreza Roshandel[4], Mehdi Jafari[2], Abdolreza Fazel[5], Taghi Amiriani[4], Abolfazl Bazazan[6], Shahin Merat[1], Reza Malekzadeh[7]**

*[1]Liver and Pancreatobiliary Disease Research Center, Digestive Diseases Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*
*[2]Digestive Disease Research Center, Digestive Disease Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*
*[3]The Kirby Institute, University of New South Wales Sydney, Sydney, New South Wales, Australia*
*[4]Golestan Research Center of Gastroenterology and Hepatology, Golestan University of Medical Sciences, Gorgan, Iran*
*[5]Cancer Research Center, Golestan University of Medical Sciences, Gorgan, Iran*
*[6]Department of Health, Golestan State Prisons and Security and Corrective Measures Organization, Gorgan, Iran*
*[7]Digestive Oncology Research Center, Digestive Diseases Research Institute, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran*

***Background/Aims:*** Globally, hepatitis C virus (HCV) infection is among the highest priority diseases in custodial settings; however, the diagnosis remains suboptimal among people in custody. In resource-limited countries, inexpensive methods are needed to increase HCV case finding and linkage to care. The aim of this study was to validate a risk-based questionnaire vs. HCV antibody and RNA testing for identification of people with HCV infection in Iran.

***Materials and Methods:*** Between July and December 2018, in Gorgan central prison, residents and newly admitted inmates completed a short questionnaire, including data on history of HCV testing, drug use, injecting drug use, sharing injecting equipment, and imprisonment (newly admitted inmates only). All participants received rapid HCV antibody testing, followed by venepuncture for HCV RNA testing (antibody-positive only). Each enrollment questionnaire (yes/no) was compared with the results of the HCV antibody (positive/negative) and RNA testing (positive/negative).

***Results:*** Among 1,892 participants, 96% were male and 71% had ever used drugs. Overall, 9% had a history of injecting drug use and 56% (91 of 163) had ever shared injecting equipment. Among newly admitted inmates, 69% had a history of imprisonment. The majority of participants (88%) had no history of HCV testing. Prevalence of HCV antibody was 6.7% (n=127) and HCV RNA was detected in 4.6% (n=87) of participants. Among all participants, history of drug use was the most accurate predictor of having positive HCV antibody and RNA tests (sensitivity: 95.2%, negative predictive value: 98.9%) and (sensitivity: 96.6%, negative predictive value: 99.5%), respectively. We found no combination of self-reported risk factors that would be reliable enough to skip the HCV RNA testing.

***Conclusion:*** Screening for HCV infection based on the self-reported history of drug use could replace population-based screening to reduce costs. In resource-limited settings, developing tailored screening strategies is crucial for pursuing HCV elimination targets and further cost-effectiveness analysis is needed to confirm the optimal strategies.

***Keywords:*** Hepatitis C screening, hepatitis C elimination, prison healthcare

***Table 1.*** Sensitivity, specificity, positive predictive value and negative predictive value of risk behaviors for identifying people with HCV antibody-positive test results in Gorgan Central Prison, 2018, n=1,892.

| | | Sensitivity (%) | Specificity (%) | PPV (%) | NPV (%) |
|---|---|---|---|---|---|
| Residents and new inmates | History of Drug Use | 95 | 31 | 9 | 99 |
| | History of Injection | 54 | 94 | 39 | 97 |
| | History of Sharing | 34 | 97 | 46 | 95 |
| | History of testing | 55 | 94 | 50 | 95 |
| | Drug Use and injection | 54 | 31 | 39 | 99 |
| | Drug Use and sharing | 34 | 31 | 46 | 99 |
| | Injection and sharing | 34 | 95 | 46 | 99 |

***PP-720***

## *Liver biopsy- patients perception in a new era of non-invasive techniques*

**Rui Gaspar, Marta Patita, Patricia Andrade, Susana Lopes, Guilherme Macedo**

*Centro Hospitalar de São João, Porto, Portugal*

***Background/Aims:*** Percutaneous or transjugular liver biopsy is a cornerstone in the evaluation and management of patients with liver disease. Recently, with the widespread implementation of non-invasive techniques, associated with less discomfort and risks, liver biopsy has been used for more complex cases to aid in the diagnosis or staging of the liver disease.The aim of this study was to evaluate patients perception on liver biopsy: before, immediately after and in the 72 hours after the procedure.

***Materials and Methods:*** Prospective study of patients submitted to liver biopsy (percutaneous or transjugular) through 8 consecutive months. We performed questionnaires in our department before and immediately after the procedure, and a telephone questionnaire in the 72 hours after the liver biopsy.

***Results:*** We included 72 liver biopsies (61 percutaneous and 11 transjugular), of 72 patients, 58% male, with mean age of 52.0±13.0 years. When questioned, 89% considered to have received sufficient information about the reason to perform the liver biopsy, 79% about the technique and 61%about the potential risks of the procedure. Only 8% search for extra information after the doctor's explanation and 49% referred anxiety before the procedure. After the procedure, 89% classified liver biopsy as with no or only mild pain, and 100% would perform another liver biopsy if clinically necessary. In the telephone questionnaire, 67% kept with no pain, 97% would perform another liver biopsy if clinically necessary and 61% preferred to perform another liver biopsy than any other alternative diagnostic exam. There were no major complications associated with the procedure.

***Conclusion:*** Liver biopsy is a well-tolerated and painless procedure in the majority of the cases, although causing anxiety in almost half of the patients. Most of the patients would perform a new liver biopsy if clinically necessary, preferring it to other alternative diagnostic exam.

***Keywords:*** Liver biopsy, patient perception

***PP-721***

## *Evaluation of abnormal liver biochemical test results: Arguments for a directed approach*

**Rui Gaspar, Patricia Andrade, Fernando Azevedo, Helder Cardoso, Rodrigo Liberal, Susana Lopes, Guilherme Macedo**

*Centro Hospitalar de São João, Porto, Portugal*

***Background/Aims:*** Abnormal liver biochemical test results are one of the major causes of Hepatology referrals. The evaluation of these patients includes a complete algorithm, searching for all potential causes of an abnormal result, even if they are rare. The aim of this study was to evaluate the major causes of abnormal liver biochemical test results and the need of performing a complete panel of all possible causes of liver disease in the presence of abnormal liver biochemical test results.

***Materials and Methods:*** A retrospective study between January 2015 and August 2017 of all Hepatology appointments due to abnormal liver biochemical test results was performed

***Results:*** We included 335 Hepatology appointments, 67% male, with mean age of 55.6±17.0 years. The majority of the patients did not have family history of previous liver disease (95%). In 47% of the patients, the BMI was superior of 25, 34% revealed alcohol consumption of more than 30 g/day and 23% potential exposure to virus. We observed isolated elevation of AST and ALT in 15% of the cases, isolated elevation of cholestasis liver enzymes in 18% and isolated elevation of GGT in 13% of the cases. For the diagnosis or staging of liver disease were performed 75 liver biopsies and 210 fibroscans. The most common diagnosis were NASH/ASH in 60.6% e HCV infection (14.9%). The following factors were associated of definite diagnosis of NASH/ASH: BMI>25 (p<0.001), alcohol consumption >30g/day (p<0.001), absence of family history of liver disease (p=0.016), triglycerides (p=0.01), ALT(p=0.017), GGT (p=0.004) and Controlled Attenuation Parameter (p=0.001). In these cases, A1-AT, ceruloplasmin and autoantibodies measurement were unremarkable.

***Conclusion:*** In the study of abnormal liver biochemical test results, a directed approach to NASH/ASH or viral hepatitis was sufficient in 81%, being the complete panel of all possible causes of liver disease necessary in 19% of the cases. Therefore, we identified several factors that could help to select the patients in which the direct approach to NASH/ASH or viral hepatitis would be sufficient.

***Keywords:*** NASH, abnormal liver tests

---

***PP-722***

## *Clinic audit of 500 percutaneous endoscopic gastrostomies*

**Rui Gaspar, Rosa Coelho, Patricia Andrade, Rosa Ramalho, Guilherme Macedo**

*Centro Hospitalar de São João, Porto, Portugal*

***Background/Aims:*** Percutaneous endoscopic gastrostomies are widely used to provide long term enteral nutrition in patients unable to partake of adequate oral feeds. The aim of this study was to evaluate the indications for placing PEG, technical success, complications and patients outcome.

***Materials and Methods:*** Retrospective study of all consecutive PEGs inserted in a tertiary center from May 2011 to March 2018.

***Results:*** We included 500 patients, 64% male, with mean age of 65.5±16 years. The median time of follow-up was 7 [2-20] months. The median Charlson index was 4 [3-6], 34% had cardiovascular disease and 28% dementia; 23% were under antiplatelet/anticoagulant therapy. The main indications for PEG insertion were dysphagia (81%) and recurrent

pneumonia (9%). The majority placed a 20Fr PEG (61%) and under sedation with midazolam, with only 21 procedures under propofol. There were no immediate complications after the procedures. In the period of follow-up, 31.5% presented complications, being inadvertent removal (32.2%), pain (23.3%) and degradation of the PEG tube wall material (20.5%) the most common. Recurrent pneumonia as indication for placing PEG (p=0.036), neurologic indication for placing PEG (p=0.018) and dementia (p=0.004) were associated with more risk of complications. The mean number of admission due to pneumonia was reduced after insertion of PEG (0.41±0.87 vs 0.25±0.65, p<0.01) The mortality rate at 30 days was 5.2% and at 180 days was 21%, with lower values of hemoglobin (12.5±1.9g/dL vs 11.5±1.9g/dL, p=0.004), higher number of previous admissions due to pneumonia (1.3+1.9g/dL vs 0.7±0.9, p=0.036) and antiplatelet/anticoagulant therapy (p<0.001) statistically associated with 180-days mortality, and cerebrovascular disease presenting an inverse association with 180-days mortality (p<0.001).

***Conclusion:*** PEG placement is a safe procedure, with low rates of complications. However, due to the high rates of comorbidities in this population, the 180-days mortality rate is high.

***Keywords:*** Percutaenous endoscopic gastrostomy, pneumoniae

---

***PP-723***

## *Small bowel angioectasia identified by videocapsule endoscopy*

**Rui Gaspar, Patricia Andrade, Helder Cardoso, Margarida Marques, Guilherme Macedo**

*Centro Hospitalar de São João, Porto, Portugal*

***Background/Aims:*** Middle gastrointestinal bleeding is responsible for up to 5% of all gastrointestinal bleeding. Videocapsule endoscopy presents high accuracy in the diagnosis of small bowel angioectasia, playing a key role in the management of the patients. The aim of this study was to characterize the population with bleeding from small bowel angioectasia and the predictive factors for admission in these situations.

***Materials and Methods:*** Retrospective study of patients with small bowel angioectasia identified in videocapsule endoscopy from September 2010 and January 2018.

***Results:*** We included 101 patients (51% male, with mean of 69±13 years) with median follow up of 16 [3.5-31] months. As risk factors, 41% had valvular heart disease and 16% chronic kidney disease; half of the patients were under antiplatelet/anticoagulant therapy and 9% referred NSAIDs use. The majority presented as a hypochromic microcytic anemia (73%); 36%needed blood transfusion and 28% were admitted to our department. The lesions (more than one in 61% of the cases) were in the duodenum, jejunum and ileum in 39%, 74% e 34% of the cases, respectively. Twenty-six patients were treated with endoscopy (argon plasma coagulation) and one patient was submitted to surgery. Twelve patients had recurrence of bleeding during the period of follow-up. Heart failure (p=0.035), previous acute myocardial infarction (p=0.035), anticoagulant therapy (p=0.043), active bleeding (p<0.001), lower value of hemoglobin (p<0.001) and need of blood transfusion (p<0.001) were independently associated with the need of hospitalization.

***Conclusion:*** Middle gastrointestinal bleeding is a common cause for patient referral, mainly in the elderly population with multiple comorbid conditions and under antiplatelet/anticoagulant therapy, leading to blood transfusion and hospitalization in a large proportion of patients. We identified predictive factors associated with the need of hospitalization that could guide our management of these patients.

***Keywords:*** Middle gastrointestinal bleeding, videocapsule endoscopy

***PP-724***

## *Videocapsule endoscopy and CT/MR enterography in the evaluation of small bowel in Crohns disease*

**Rui Gaspar, Patricia Andrade, Helder Cardoso, Margarida Marques, Susana Lopes, Guilherme Macedo**

*Centro Hospitalar de São João, Porto, Portugal*

***Background/Aims:*** The evaluation of the small bowel is challenging but of paramount importance in Crohns disease. The aim of this study was to compare the diagnostic accuracy of videocapsule endoscopy and CT/MR enterography in the evaluation of small bowel in Crohns disease.

***Materials and Methods:*** Retrospective study of patients with suspicion or established Crohns disease that performed videocapsule endoscopy and CT or MR enterography from January 2011 and June 2017.

***Results:*** We included 123 patients, 60% female, with mean age of 37.0±12.6 years. The reasons to perform imaging studies were Crohns disease suspicion (53%), grading of Crohn's disease activity in 20% and for acute exacerbation of the disease (19%). Thirty five percent of the patients were under immunosuppressive therapy and 20% were previously submitted to surgery. The main symptoms were abdominal pain (52%) and diarrhea (49%). Videocapsule endoscopy identified lesions in distal ileum in 72 patients (59%), in the proximal ileum in 37 patients (30%) and in jejunum in 33 patients. Enterography with CT or MR identified lesions in distal ileum in 67 patients (54%), in proximal ileum in 14 patients (11%) and in jejunum in 5 patients (4%). The inter-rater agreement between the imaging studies was fair (kappa=0.295), being better in the distal ileum (kappa=0.41, moderate agreement), than in the proximal ileum (kappa=0.29, fair) and jejunum (kappa=0.05, poor).Comparing to videocapsule endoscopy, CT/MR enterography presented a sensitivity and specificity, respectively, of 74.2% and 66.7% in the distal ileum, 27.8% and 96.3% in the proximal ileum and 3.2% and 95.3% in the jejunum, with an overall sensitivity of 67.9% e specificity of 66.7%.

***Conclusion:*** Videocapsule endoscopy was the more accurate exam for diagnosis of lesions in patients with Crohns disease in the different segments of the small bowel, revealing a much better accuracy for the proximal segments of the small bowel when compared to CT or MR enterography.

***Keywords:*** Videocapsule endoscopy, Crohn's disease

---

***PP-725***

## *Albumin bilirubin (ALBI) score: A new and simple model to predict mortality in patients of acute on chronic liver failure*

**Uttayan Chakrabarti, Manisha Bais Thakur**

*Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India*

***Background/Aims:*** The ALBI score is a new model for assessing the severity of liver dysfunction and to predict the outcome of patients with acute on chronic liver failure. The purpose of this study was to look for the prognostic value of ALBI score in predicting the outcome in patients of Acute on chronic liver failure and was compared with that of CTP and MELD scores which are in vogue as prognostic scores.

***Materials and Methods:*** This prospective observational study included 50 consecutive patients of ACLF where we looked for the etiology of the underlying chronic liver disease, routine blood investigations were done, ALBI, MELD and CTP scores were calculated within 24 hours of admission. The mortality was assessed during the hospital stay and if discharged at 3 months by telephonic con-

versation. The association of ALBI score with the mortality in patients of ACLF was looked for and was compared with that of CTP and MELD scores. A p value <0.05 was considered significant. ALBI score=-0.085×(albumin g/L) + 0.66×lg(TBil μmol/L)

***Results:*** Only 6 patients had survived for 3 months. 100% mortality was seen with HBV and NASH related CLD whicle alcohol related CLD which was the most common etiology had a mortality of 93.55%. Among the baseline parameters, Direct Bilirubin and ALBI score had a statistically significant association with the outcome of the patients (p<0.05). An univariate cox regression analysis showed high total, direct bilirubin, serum sodium as independent risk factors for mortality though a multivariate analysis found no association. Comparison of the prognostic scores revealed ALBI to have a significant association with the outcome(p-0.0004),had the best predictive efficacy with the largest AUROC with a statistically significant difference noted with CTP score(p-0.044) but not with MELD score(p-0.3047).ALBI had a sensitivity and specificity of 65.91% and 100% respectively at a cut off >-0.12. In the subgroup analysis of alcohol related ACLF, ALBI again had the best predictive efficacy though the difference with the other two scores was not statistically significant. A positive correlation was seen between ALBI and CTP, MELD scores.

***Conclusion:*** The results from our study showed that the ALBI score determined on admission indicates the likelihood of survival of an Acute on chronic liver failure patient. The fact that the ALBI score uses only two convenient parameters, being readily obtained by an easily accessible blood test, objectively evaluated and being non inferior to the existing CTP and MELD scores indicate that ALBI score could be used as a simple, reliable prognostic score to predict the mortality in patients of Acute on chronic liver failure and for liver transplant prioritization.

***Keywords:*** Acute on chronic liver failure, ALBI score, mortality

---

***PP-726***

## *Plummer vinson syndrome: A single centre experience*

Ramesh Satarkar

*Satarkar Gastroenterology Center, Aurangabad, India*

***Background/Aims:*** Plummer Vinson syndrome is an extremely rare syndrome characterised by a triad of Dysphagia, Iron deficiency anaemia and Post cricoid oesophageal web. We present our single centre experience of this syndrome.

***Materials and Methods:*** A retrospective analysis of patients presenting with oesophageal web at endoscopy and/or dysphagia between 2003 to 2018 was carried out. The presentation, treatment methodology and outcomes were analysed.

***Results:*** 15 patients were identified to have oesophageal webs during endoscopy. All the patients were women. Age ranged from 35 to 65 years. 13 had dysphagia and two did not. Duration of dysphagia ranged from 1 month to 216 months. 10 patients had dysphagia for more than one year. One patient had odynophagia, 4 had glossitis with complaint of inability to eat spicy food. 9 patients had subnormal weight for height. Haemoglobin ranged from 7.1 to 13 gm% with an average of 8.54 gm%. 12 patients had iron deficiency anaemia, 2 had normal Haemoglobin and data was not available for one patient. Barium swallow done in 3 patients showed classical post-cricoid web. In 8 patients the endoscope itself was enough to break the post-cricoid web, in 4 patients TTS balloon, in 3 patients Savary-Guilard dilators and in one patient needle knife was used to cut the web. 22 sessions were required in 14 patients. 8 required single session, 4 required two and 2 required three sessions to achieve dysphagia relief. 11 patients had complete relief of dysphagia, 3 were lost to follow up and one patient refused dilatation. One patient had a perforation managed conservatively. Iron replacement was done intravenously in 5 and orally in 10 patients. Average follow up was 22 months with a median of 6 months. None developed carcinoma on follow up.

***Conclusion:*** In our series of 15 patients of post cricoid oesophageal webs, 12 patients qualified for Plummer Vinson syndrome. The web can be easily broken with the endoscope itself in more than 50%patients, in others either TTS or Savary-Guilard dilators are required. Some patients may require multiple sessions to achieve complete relief of symptoms. Dilatation in these patients is safe and complications are occasional. All patients require iron replacement therapy.

***Keywords:*** Plummer vison syndrome, oesophageal webs, iron deficiency anaemia

***PP-727***

## *Screening for prior exposure to hepatitis B virus infection in patients undergoing chemotherapy*

**Mian Shah Yousaf[1], Faisal Aslam[1], Yamna Jadoon[1], Arbab Muhammad Kashif Khan[2], Samad Jehangir[1]**

*[1]Aga Khan University Hospital, Karachi, Pakistan*
*[2]Hayatabad Medical Complex, Peshawar, Pakistan*

***Background/Aims:*** Chemotherapy in patients with occult hepatitis can lead to the reactivation of Hepatitis B and even acute liver failure in immunosuppressed patients. We investigated the current trend of screening for previous exposure to hepatitis B in patients receiving chemotherapy in Pakistan.

***Materials and Methods:*** In this retrospective multicenter study we collected data from the medical records of patients who underwent chemotherapy during a period of six months. Data was collected to assess the screening for Hepatitis before chemotherapy.

***Results:*** A total of 182 patients who underwent chemotherapy were studied. The mean age of patients was 52.8±14.9 years; 101 (55.5%) were male. 140 (76.9%) were diagnosed with having solid organ malignancies while 42 (23.1%) were reported to have hematological malignancies. In our sample, 103 (56.6%) patients were screened for HBsAg, and amongst these patients, 3 patients tested positive. Hepatitis B core antibody (HBcAb) was checked in only 3 (1.6%) of the patients. The mean level of liver enzymes including ALT, AST, GGT, and ALP were 42.09, 38.98, 63.48 and 138.81, respectively. Ultrasound reports were available for 113 patients and the most common finding was a normal ultrasound 43 (38.1%), followed by fatty liver 29 (25.7%).

***Conclusion:*** Approximatelty half of the patients receiving chemotherapy are screened for active hepatitis B infection and screening for occult Hepatitis is almost negligible. Strategies are needed to ensure that all patients receiving chemotherapy should undergo complete screening of Hepatitis B before commencing chemotherapy.

***Keywords:*** Occult hepatitis B, HBsAg, HBcAb, immunosuppression, chemotherapy

| | |
|---|---|
| Age (years), median; range | 52.8 (20-86) |
| Sex, n% | |
| Male | 101 (55.5) |
| Female | 81 (44.%) |
| Cancer type (n%) | |
| Gastrointestinal | 42 (23.1%) |
| Breast | 29 (15.9%) |
| Lymphoma | 28 (15.3%) |
| Genitourinary | 26 (14.3%) |
| Head and Neck | 17 (9.3%) |
| Musculoskeletal | 12 (6.6%) |
| Lungs | 09 (4.9%) |
| Others | 19 (10.4%) |
| Mean ALT level (n=175), IU/L | 42.09 |
| Mean AST level (n=123), IU/L | 38.98 |
| Mean GGT level (n=168), IU/L | 63.48 |
| Mean ALP level (n=166), IU/L | 138.81 |
| Mean Bilirubin level (n=171), mg/dL | 1.093 |

***PP-728***

## *Inappropriate use of proton pump inhibitors, time to reconsider indications before it will cause more harm than benefits*

**Ghulam Fareed, Shahab Abid**

*Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Proton pump inhibitors (PPI) are considered to be the most effective class of drugs known till date for gastric acid suppression. Data is emerging which highlights potential side effects of PPIs. It is observed that around half of PPIs prescriptions are unnecessary especially for elderly population.

***Materials and Methods:*** This is a retrospective study carried out at tertiary care hospital, Karachi, Pakistan. We obtained 13,346 patients from one year data provided by Health Information Management Services (HIMS) that were administered PPIs. Patients underwent stratified random sampling and divided into three different departments including Medicine, Gynecology & Obstetrics and General Surgery. Cumulative sample size was 980 patients. Out of these patients, 183 were excluded and 797 patients were analyzed.

***Results:*** Mean age was 54.25 years (+/- 18.2 SD) with male predominance (57.2%) and average length of hospital stay was 4.35 days (+/- 4.8 SD). Out of 797 patients, 367 (46%) had an FDA-approved indications for PPI use, 213 (26.7%) had alternate approved indications including anti-platelets, anti-coagulation and oral steroids (recommended clinical practice guidelines), whereas remaining 217 patients (27.2%) were treated with PPI without an approved indications(Figure-01) Further departmental analysis showed Medicine has 33.8%FDA approved PPI use, 35% alternate indications and 31.2% PPI use was without indications, General surgery has 62.53%, 12.66% and 24.80% whereas OB/GYN has 62.5%, 2% and 35.5% respectively (Figure 2).

***Conclusion:*** Approximately one third of patients received PPI without any clear indication and there is significant difference among different departments. This is time to reconsider indications before it will cause more harm than benefits.

***Keywords:*** Proton pump inhibitors (PPI), FDA approved indications for PPI

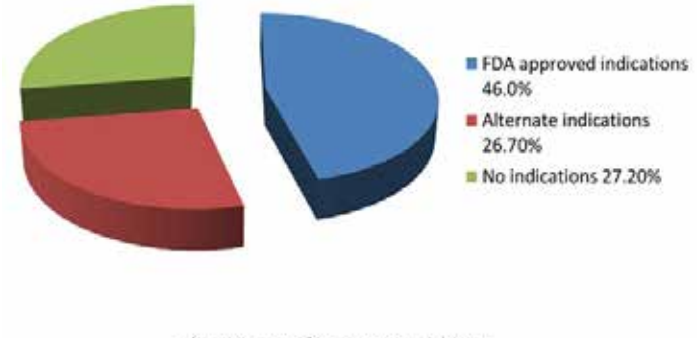



Figure-01: Use of Proton pump inhibitors.

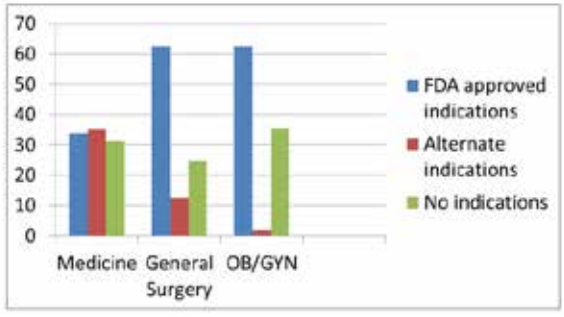



Figure-02: Departmental Use of PPI

***PP-729***

## *Profile of acute, benign esophageal ulcers*

Ramesh Satarkar

*Satarkar Gastroenterology Center, Aurangabad, India*

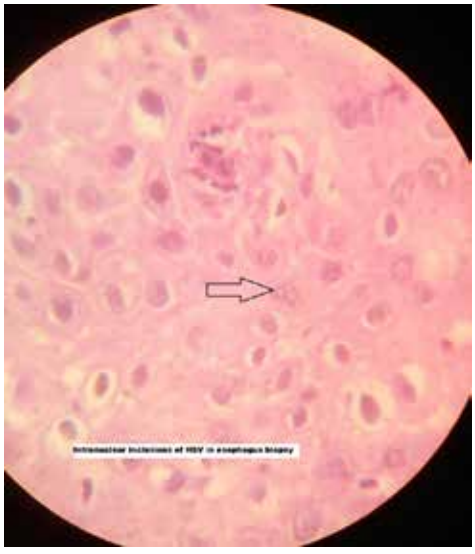
***Background/Aims:*** Benign oesophageal ulcers can be broadly categorised into reflux related and reflux unrelated. Reflux unrelated can be further categorised into acute and chronic. We present our experience of acute, benign oesophageal ulcers.

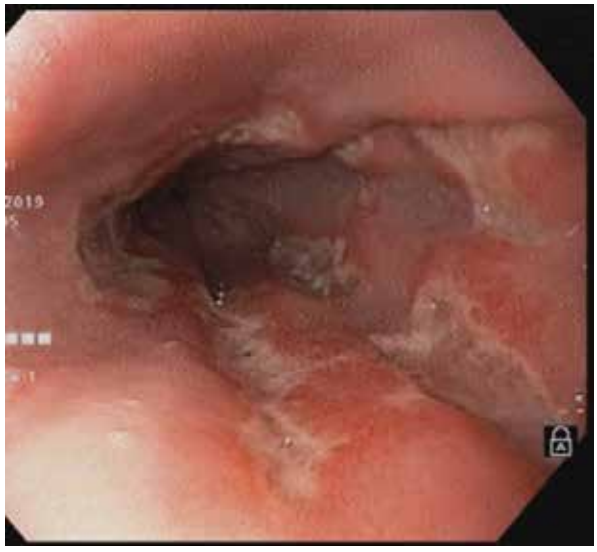
***Materials and Methods:*** A retrospective analysis of patients presenting with dysphagia/odynophagia of less than four weeks duration and who had oesophageal ulcers on endoscopy was done. Medication history, HSV, CMV, HIV serology, histology were noted. Treatment, follow up was looked for.

***Results:*** 36 patients presenting with odynophagia/dysphagia of less than four weeks and who had benign oesophageal ulcers were identified. 22 were male and 14 female. Age ranged from 18 to 58 years. 31 had odynophagia,24 had dysphagia and 15 had chest pain. Duration of symptoms ranged from two to 30 days. Medication history: Doxycycline12, NSAIDs 5, Retinoic acid one patient before onset of symptoms.2 patients each seropositive for HIV, and HSV antibodies. Endoscopy: single ulcer in five, two ulcers in three and multiple ulcers in 23 patients. Histology: Acute esophagitis 7, non-specific esophagitis 12, Tuberculous oesophagitis and chronic esophagitisone each. HIV seropositive patients treated with ART, Tuberculous esophagitis with AKT, one HSV positive patient with Acyclovir while others with symptomatic treatment. In 24 patients Nifedepine and in 8 patients Hyoscine butylbromide used for pain relief. 23 made complete recovery,13 were lost to follow up.

***Conclusion:*** Acute, benign, non-GERD ulcers of oesophagus are due to medications, viral infections or rarely due to Tuberculosis. Histology and serology for viruses is essential when there is no definite medication history.

***Keywords:*** Acute esophageal ulcers, pill esophagitis





***PP-730***

## *Nomograms for the prediction of malignancy risk in patients with brach duct type intraductal papillary mucinous neoplasms of the pancreas (BD-IPMN): Should we consider its systematic use?*

**Pedro Costa-moreira, Filipe Vilas-boas, Pedro Moutinho-Ribeiro, Pedro Pereira, Susana Lopes, Eduardo Rodrigues-Pinto, Guilherme Macedo**

*WGO Porto Gastroenterology and Hepatology Training Center, Porto, Portugal*

***Background/Aims:*** The ability to correctly predict the presence of high-risk BD-IPMN cases using international recommendations is limited. The use of quantitative nomograms may be an asset predicting advanced histology (high-grade dysplasia/carcinoma). We aimed to evaluate the acuity of two previously published nomograms in an external cohort of patients that underwent surgery for BD-IPMNs.

***Materials and Methods:*** Retrospective analysis of the of BD-IPMN cases that underwent surgical therapy between 2010 and 2018. Based on pre-surgical clinical findings, we obtain the score for two previous published nomograms (Nomogram A – Asia: Jang JY, Ann Surg 2017; Nomogram B – USA: Attiyeh MA, Ann Surg 2018). The acuity of each nomogram to predict advanced histology was evaluated in a logistic regression model.

***Results:*** We evaluated 54 cases (mean age 63.9±14.6 years, 67% were female). The lesions were incidentally diagnosed in 66.7% of the cases. Lesions were most often located in the head of the pancreas (42.6%) and had an average diameter of 32.3±15.8 mm. The surgical pathology report revealed advanced histology in 31.5% (carcinoma in 16.7%). The mean scores were 174.2±88.5 points (A) and 114.6±57.2 points (B). In this sample, mean scores were significantly higher in the presence of advanced histology (A: 220.6±101.0 vs. 152.3±73.7 points, p=0.01, B: 153.1±55.5 vs. 95.5±49.0 points, p<0.01). A statistical association was found between the scores obtained and the probability of advanced histology in both nomograms (A: OR 1.01, p=0.02, B: OR1.02, p<0.01). The two models presented similar acuity regarding the predictive capacity measured by the area under the curve (A: AUC 0.72, p=0.01, B: AUC 0.72, p<0.01).

***Conclusion:*** The two nomograms presented moderate acuity for prediction of advanced histology in this sample. Their use may complement the risk stratification defined by international recommendations.

***Keywords:*** Intraductal papillary mucinous neoplasms, pancreatic surgery, pancreatic carcinoma

***PP-731***

## *Prospective study investigating indications for admission to the hospital for known cirrhotic patients*

**Anirban Jabbar, Debasis Datta**

*Fortis Hospital, Kolkata, India*

***Background/Aims:*** It is known that cirrhotic patients often need hospital admission. However there is no larger data in India investigating the cause leading to hospital admission in patients with cirrhotic liver disease. Our aim was to find out the precipitating causes leading to hospital admission for known cirrhotic patients in private set up in India.

***Materials and Methods:*** This study has been carried out prospectively in two tertiary liver units over a period of 12 months (private set up). The patients were adults (age 18-80 years) with known CLD. The patients attended emergency department and some of them were referred from other gastroenterology centres. We documented the precipitating factors leading to hospital admission. During admission MELD SCORE was documented.

***Results:*** We analysed 75 known cirrhotic patients who were admitted over period of 12 months. All patients were adults aged 18-80 years old (45 were male and 30 were female). We found 64% were admitted due to worsening of ascites. Of them 40% had subacute bacterial peritonitis and 13% had HRS (hepato renal syndrome) with ascites. Other predominant causes for admission were Encephalopathy 16%, GI bleed 14%, worsening jaundice 4%, renal failure <1%.
Proven sepsis (including SBP, pneumonia, UTI, Gastroenteritis) was found in 34 patients.
Of them 75 patients:
MELD SCORES:
SCORE: <10 : 14 patients
SCORE: 10-20: 26 patients
SCORE : >21 : 35 patients

***Conclusion:*** Our data suggests worsening of ascites was the predominant cause for hospital admission in cirrhotic patients. Proven sepsis was found in 45% cases, however clinically sepsis was diagnosed in approximately 75% to 80% cases, but some cases cultures were negative. GI bleeding was not one the primary causes as most patients had regular variceal surveillance. We felt more proper fluid monitoring (input and output) strict measurement could prevent admission in patients with ascites.Larger multicentric studies will be useful for better assessment.

***Keywords:*** Cirrhosis, ascites, sepsis

---

***PP-732***

## *The real-world outcomes of virologic response of treatment with direct acting antiviral agents of chronic hepatitis C: Single center study*

**Özlem Özer Çakır**

*Department of Gastroenterology And Hepatology, Alanya Alaaddin Keykubat University School of Medicine, Antalya, Türkiye*

***Background/Aims:*** Chronic hepatitis C on June 2016 in our country when treating the existing direct antiviral agent currently offering real-life data, we aimed to investigate the efficacy of this treatment.

***Materials and Methods:*** Patients with chronic hepatitis C treated with new direct acting antiviral agents were evaluated for sustained virologic response in our university affiliated hospital between July 2017 and September 2018, retrospectively.

Clinical and demographic characteristics of patients, side effects during treatment, 4., 12. and 24th week HCV RNA levels were recorded from the hospital database.

***Results:*** A total of 19 chronic hepatitis C patients were included in our study (7 patients (36.8%) using (Ombitasvir + Paritaprevir + ritonavir) + Dasabuvir and 12 patients (63.2%) using (Ombitasvir + Paritaprevir + ritonavir) + Dasabuvir + Ribavirin). The mean age of the patients was 43.8±13.6 years and 57.9% of the patients were male (n:11). Genotype 1a in 42.1% (n:8), genotype 1b in 36.8% (n:7), and genotype 4 in 21.1% (n:4) of the patients. Patients with OPrD had a RNA level of 0 at week 4 with a rate of 28.6% of patients with <12 IU/mL and 42.9%of patients with HCV RNA level of 0, RNA level was 0 in all patients at week 12 and 24 (p<0.001). In patients using OPrD+rib, the rate of patients with RNA level 0 was 58.3% of the patients and <12 IU/mL was 33.3% of the patients at 4$^{th}$ week. At the same group HCV RNA level was 0 in all patients at 12$^{th}$ and 24$^{th}$ week (p<0.001).

***Conclusion:*** Sustained virologic response rate is 100% treatment with direct-acting antiviral agent of chronic hepatitis C and these drugs which are well tolerated in our real-world outcomes.

***Keywords:*** Direct acting antiviral agents, chronic hepatits C, sustained virologic response, real-world outcomes

---

***PP-733***

## *Prognostic role of the blood neutrophil to lymphocyte ratio on survival in patients with hepatocellular carcinoma*

Özlem Özer Çakır

*Department of Gastroenterology and Hepatology, Alanya Alaaddin Keykubat University School of Medicine, Antalya, Türkiye*

***Background/Aims:*** The NLR shows systemic inflammatory response due to tumor progression. We aimed to investigate the predictive effect of the NLR on the long-term survival in patients with HCC receiving different treatments.

***Materials and Methods:*** A total of 48 HCC patients were included in the retrospective cohort study. The follow-up period was 36 months and the endpoint was survival. The patients were treated according to BCLC criteria.

***Results:*** A total of 48 patients with HCC were included in our single center retrospective cohort study. The mean age of the patients was 67.2±9.5 years (37 men and 11 women). The etiologies of the patients were viral hepatitis (n:35, 27 chronic hepatitis B, 8 chronic hepatitis C), autoimmune hepatitis (n:1), cryptogenic cirrhosis (n:12). The mean NLR values were 1.98±0.51 and 4.35±2.08 in surviving and nonsurviving patients, respectively (p<0.001). Patients with baseline NLR less than 3.17 had a significantly longer survival time compared with those with NLR of at least 3.17 (log-rank test, w2=33.442 and p<0.001). NLR was found to be an independent predictor of mortality in all Cox Regression models (relative risk 1.9; 95% confidence interval 1.4–2.5; p< 0.001). Receiver operating characteristic curve analysis showed that cut-off values of 3.75, 3.49, 3.03 and 2.39 for NLR predicted 3, 12, 24, and 36-month mortality, respectively (AUC: 0.889, p=0.003; 0.931, p<0.001; 0.985, p<0.001; 0.971, p<0.001, respectively).

***Conclusion:*** NLR is a independent predictor of mortality in patients with HCC compared to CTP, MELD-Na and CCI. NLR is also better predictive of overall survival than stage of BCLC.

***Keywords:*** Neutrophil to lymphocyte ratio, hepatocellular carcinoma, survival

***PP-734***

## *Polyp and adenoma detection rate in colonoscopy: Are we ready for a population screening of colorectal cancer?*

**Nada Lahmidani, Maria Lahlali, Asmae Lamine, Hakima Abid, Mounia El Yousfi, Mohammed El Abkari, Sidi Adil Ibrahimi, Dafr Allah Benajah**

*Department of Gastroenterology, University Hospital Hassan Ii, Fez, Morocco*

***Background/Aims:*** The Adenoma detection rate (ADR) is a quality criterion of endoscopy as well as the quality of the preparation and the time of colonic descent. Douglas Rex et al have simplified the assessment of ADR and polyp detection rate PDR by including all indications for colonoscopies (screening, monitoring, and diagnosis for symptoms). The aim of our study is to evaluate ADR and PDR and identify associated factors in order to improve our practices especially if we want to embark on a CCR mass screening program.

***Materials and Methods:*** In our retrospective study, 200 consecutive colonoscopies were performed between March 2017 and August 2017, the colonoscopies were classified into 3 groups: screening, surveillance or diagnosis. The 3 key indicators selected were the average number of polyps per colonoscopy (NPP), the polyp detection rate (PDR) and the adenoma detection rate (ADR).

***Results:*** The patient population studied comprised 46% of men and 54% of women with 50% of patients over 50 years of age. The rate of poor preparation (Boston score <6 or one of the sub-scores <2) was 20.5% (41 cases). The non-collection of the Boston score concerned only 1% of patients. The colonoscopies were classified in 3 groups: 34.5%, screening (n=69), 24% surveillance (n=48) and 41.5% diagnostic (n=83). Among the colonoscopies performed, 34 allowed screening of 50 polyps (27A, 5PAFS, 16PH, 2 other histologies) with a PDR of 17% and an NPP of 0.25, 21 colonoscopies have also allowed the screening of at least one adenoma (ADR=10.5%). Polyps <1 cm accounted for 74% of polyps (n=37). High-grade dysplasia (DHG), in situ or invasive carcinoma lesions accounted for 0.1% of the polyps (n=5). In the colonoscopy screening group the PDR was 17.39% (n=12). In univariate analysis, factors associated with high PDR were male with p=0.014 (OR 2.76, 95% CI [1.12, 7.15], age greater than 50 years p=0.01 (OR 2.82 IC at 95% [1.21; 7.06]), the quality of the preparation p=0.01 (OR 4.88 95% CI [1.15; 43.94]). In multivariate analysis the age, the male sex, the preparation were associated independent factors at a high PDR.

***Conclusion:*** Our PDR is lower than that recommended by the literature this observation. Age, male gender, preparation quality and polyp size> 10mm were independent factors associated with high PDR.We probably have to improve our colonoscopy preparation and train our endoscopists to rise the ADR.

***Keywords:*** Adenoma detection rate, colonoscopy, screening

---

***PP-735***

## *Remission of inflammatory bowel disease in glucose-6-phosphatase 3 deficiency by allogeneic haematopoietic stem cell transplantation*

**Chrissy Bolton[1], Nicola Burch[2], James Morgan[2], Beth Harrison[2], Sumeet Pandey[3], Alistair Pagnamenta[4], Jenny Taylor[4], John Taylor[3], Judith Marsh[5], Victoria Potter[5], Simon Travis[1], Holm Uhlig[3]**

*[1] John Radcliffe Hospital, Oxford, United Kingdom*
*[2] University Hospitals Coventry and Warwickshire NHS Trust, Coventry, United Kingdom*
*[3] NIHR Oxford Biomedical Research Centre, Oxford, United Kingdom*
*[4] Wellcome Centre For Human Genetics, University Of Oxford, Oxford, United Kingdom*
*[6] Kings College Hospital, London, United Kingdom*

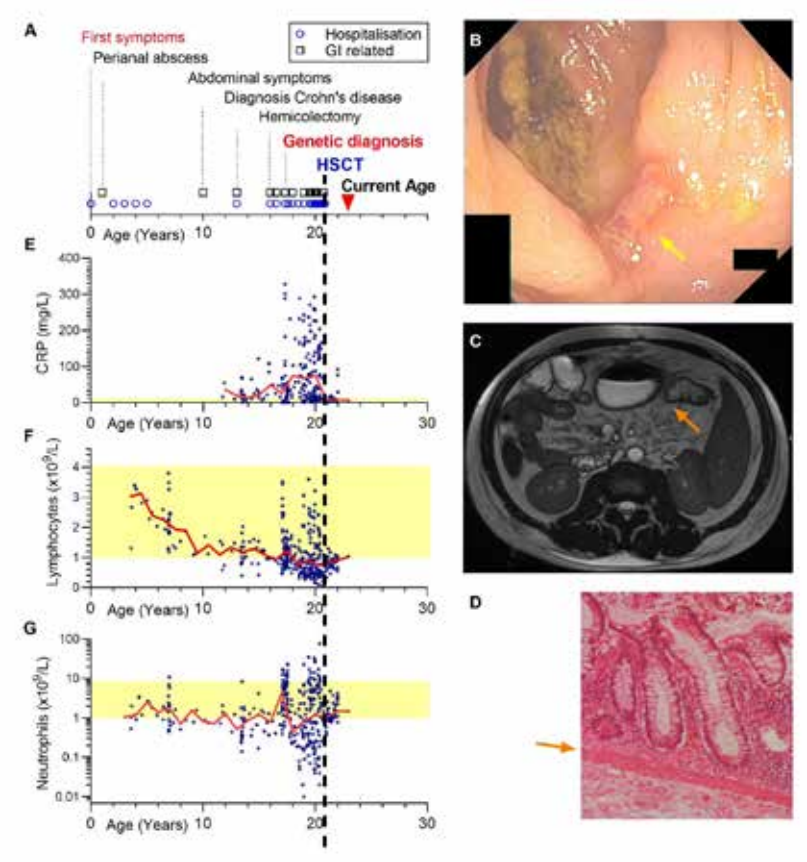
***Background/Aims:*** Defects in glucose-6-phosphate metabolism can present with inflammatory bowel disease (IBD) and life-threatening neutropenic immunodeficiency. Allogeneic haematopoietic stem cell transplant (HSCT) is increasingly used to treat patients with congenital neutropenia and other monogenic forms of IBD. However, the therapeutic response is very variable according to the pathogenesis of the intestinal inflammation. A patient with congenital neutropenia was diagnosed with Crohn's disease following colonoscopy and biopsy at the age of 13 years. He subsequently developed structuring disease, intestinal obstruction and recurrent sepsis. Despite parenteral nutrition, anti-TNF and anti-$\alpha$4$\beta$7 integrin biologic therapy he required strictureplasties, an extended right-hemicolectomy and ileacaecal resection by age 17 (Figure 1). He was diagnosed with a homozygous *G6PC3* mutation following genetic testing. Subsequently he underwent a haploidentical HSCT at the age of 20 with a reduced intensity conditioning regimen.

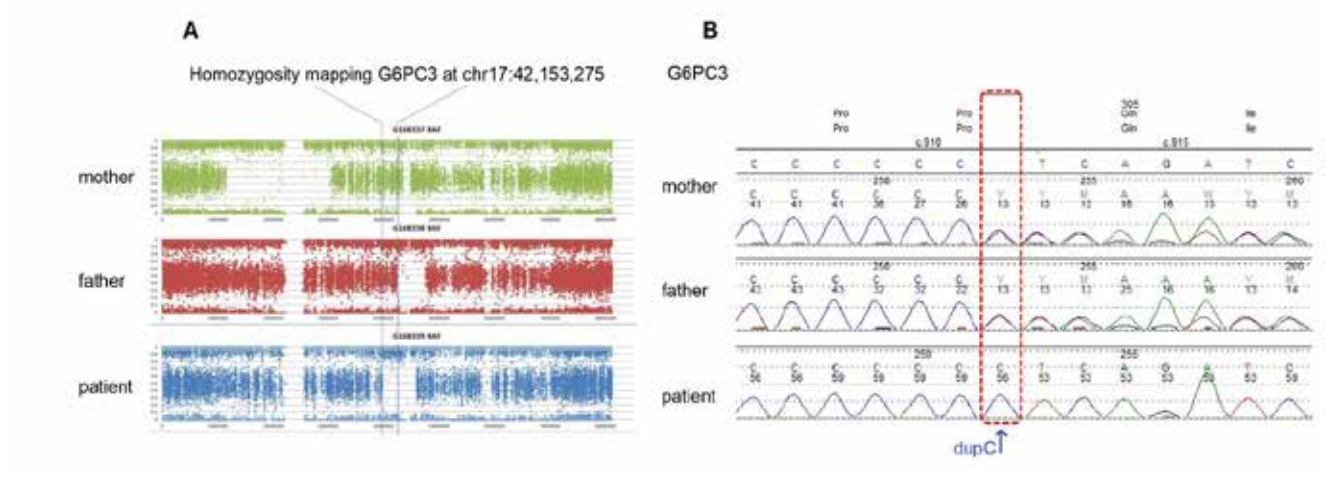
***Materials and Methods:*** Whole genome sequencing was used to identify a homozygous variant in the glucose-6-phosphatase *G6PC3* (c.911dupC; p.Q305fs*82, confirmed by Sanger sequencing) (Figure 2).

***Results:*** Following the transplant, he weaned off opiate analgesia, his neutropenia and lymphopenia resolved and he has not been hospitalised again in 2.5 years of follow-up (Figure 1). Intestinal obstructive symptoms resolved, and artificial nutrition could be stopped, with no further treatment needed for IBD.

***Conclusion:*** We show that HSCT resolves *G6PC3*-associated immunodeficiency and the Crohn's disease phenotype in an adult patient with therapy-refractory IBD.

***Keywords:*** Haematopoetic stem cell transplant, inflammatory bowel disease, monogenic disorder, G6PC3-deficiency






***PP-736***

## *PHD2 silencing enhances the paracrine effects of mesenchymal stem cells on necrotizing enterocolitis in an NF-κB-dependent mechanism*

**Chenhao Hao, Shaweihong Weihong, Luoyujun Yujun**

*Department of Gastroenterology, Guangdong General Hospital and Guangdong Academy of Medical Sciences, Guangdong Province, China*

***Background/Aims:*** Treatment options for necrotizing enterocolitis (NEC) remain inadequate. Here we examined if and how prolyl hydroxylase 2 (PHD2) silencing enhances the paracrine effects of bone-marrow-derived mesenchymal stem cells (BM-MSCs) on NEC.

***Materials and Methods:*** ShPHD2-expressing lentivirus was used to transfect BM-MSCs to silence PHD2 (PHDMSC), followed by intraperitoneal injection of the PHDMSC-conditioned medium (PHDMSC-CM) and the BM-MSC-conditioned medium (MSC-CM) into a rat pup model of NEC.

***Results:*** Systemic infusion of PHDMSC-CM, but not MSC-CM, significantly improved intestinal damage and survival of NEC rats. Such benefits may involve the modulation of epithelial regeneration and inflammation, as indicated by the regeneration of intestinal epithelial/stem cells, the regulation of Treg cells function and pro-/anti-inflammatory cytokine balance. The mechanism for the superior paracrine efficacy of PHDMSC is related to a higher release of pivotal factor IGF-1 and TGF-β2. NF-κB activation was induced by PHD2 silencing to induce IGF-1 and TGF-β2 secretion via binding to IGF-1 and TGF-β2 gene promoter.

***Conclusion:*** Together, PHD2 silencing enhanced the paracrine effect of BM-MSCs on NEC via the NF-κB dependent mechanism which may be a novel strategy for stem cell therapy on NEC.

***Keywords:*** Mesenchymal stem cells, conditioned medium, small intestine, necrotizing enterocolitis, prolyl hydroxylase 2

***PP-737***

## *A study on clinical, biochemical and sonological parameters in predicting and grading esophageal varices (EV) in compensated cirrhosis in a tertiary care hospital*

**Sandheep Janardhanan, Benoy Sebastian**

*Medical Trust Hospital Kochi, Kerala, India*

***Background/Aims:*** In cirrhosis liver, portal hypertension leads to formation of esophageal varices (EV) which do have significant mortality. However screening endoscopy, is not practically feasible for all cirrhotics at our resource constrained scenario. Realizing the need for non-invasive markers for predicting EV, there has been such studies throughout the globe so as to triage such patients for EV surveillance.

***Materials and Methods:*** This cross sectional observational study was done in a group of 70 compensated cirrhotics. The parameters assessed were MELD score, fasting serum ammonia, platelet count and platelet count/bipolar spleen diameter ratio (PC/SD). This was a single centre cross sectional observational study done. A total of 70 consecutive adult inpatients and outpatients with compensated were recruited in the study. All patients underwent endoscopic examination by an expert gastroenterologist for presence of EV. If present, EV was graded Subsequently duplex Doppler ultrasound examination was done by an expert radiologist.

***Results:*** All of these parameters were significantly associated in predicting the presence or absence of varices in the study population, 9.46±1.46 vs 7.56±.70, (81.19Umol/L)±10.59 vs (52.11Umol/L)± 9.70, 119346±30986 vs 189611±37595 and 856±140 vs 1460±204, respectively (p values<0.001). In addition they were found to be significantly associated in grading of EV,if present, in the univariate analysis ( p values <0.001).We also calculated the cut off values of all these markers in predicting and grading varices using a ROC curve.

***Conclusion:*** These non-invasive markers could be a useful tool in identifying patients with large EV who need to undergo screening & surveillance esophagogastroduoedenoscopy (EGDscopy), even though further studies are needed in this regard.

***Keywords:*** Esophagealvarices (EV), portal hypertension, ammonia, platelet count

---

***PP-738***

## *Diagnostic utility of 13C-urea breath test in dyspeptic patients having negative rapid urease test who are on long term proton pump inhibitor*

**Sukanta Chandra Das[1], Naymul Hasan[2], Birendra Nath Saha[3], Chanchal Kumar Ghosh[4]**

*[1]Narayanganj General Hospital, Narayanganj, Bangladesh*
*[2]Shaheed Ziaur Rahman Medical College, Bogra, Bangladesh*
*[3]Shaheed Taj Uddin Ahmad Medical College, Gazipur, Bangladesh*
*[4]Bangabandhu Sheikh Mujib Medical University, Dakka, Bangladesh*

***Background/Aims:*** The most common human infection of upper GIT is *H pylori* which migrates from gastric antrum to the proximal stomach following acid suppression therapy. Due to this redistribution of *H.pylori*, there might be sampling error while taking tissue from stomach for Rapid Urease Test (RUT). The 13C-Urea Breath Test (13C-UBT) is a non-invasive, simple and safe alternative which have minimal chance of this error. In this study, we want to re-evaluate RUT negative dyspeptic patients by doing 13C-UBT.

***Materials and Methods:*** This was a cross sectional study done among 50 patients attended in OPD at General Hospital, Bangladesh who were diagnosed as RUT negative Non Ulcer Dyspepsia according to ROME IV criteria and who were on long

term PPI. Then patients were re-evaluated for H. pylori status by UBT using film-coated [13C] urea tablets after stopping PPI for 2 weeks. Breath samples were collected at 0 and 30 min after administration of a UBT tablet and values were measured by infrared spectrometry. The chi-squared test was used for testing association between qualitative variables and the 't' test was used for quantitative variables. A value of $p<0.05$ was considered significant.

***Results:*** Mean age of patients of this study was 35.96±13.37. Among them 64% was male and 36%was female. Total 18% of study sample had positive UBT. Those patients who had Gastritis on esophagogastroduodenoscopy showed positive UBT in 55.55% cases and those who had no mucosal abnormality on esophagogastroduodenoscopy showed only 9.75% positive in UBT. This difference is statistically significant (p=0.008).

***Conclusion:*** 13C-UBT can be a reliable alternative to re-evaluate RUT negative dyspeptic patients particularly who are on long term PPI before concluding non HP Gastritis or non HP Dyspepsia.

***Keywords:*** Non ulcer dyspepsia, rapid urease test, 13C-urea breath test

---

***PP-739***

## *Intra- and interoperator reproducibility of a time harmonic elastography and the impact of ultrasound experience in achivieng reliable results*

**Tudor Voicu Moga[1], Lupusoru Raluca[1], Ioan Sporea[1], Alina Popescu[1], Alexandru Popa[1], Andrea Zschätzsch[1], Meghana Enumula[1], Roxana Sirli[1], Mirela Danila[1], Camelia Foncea[1], Radu Cotrau[1], Heiko Tzschätzsch[2], Anton Schlesinger[3], Ingolf Sack[2]**

*[1]Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*
*[2]Department of Radiology, Charité Universitätsmedizin, Berlin, Germany*
*[3]G.A.M.P.T. mbH and Institute of Medical Informatics, Merseburg, Germany*

***Background/Aims:*** The aim of this paper was to evaluate the inter and intraobserver reproducibility of the new time-harmonic elastography diagnostic system (THED) (1) and the impact of ultrasound (US) experience in acquiring reliable measurements, since no official recommendations are available for this system.

***Materials and Methods:*** Elastographic measurements (EM) were obtained in 27 consecutive subjects using THED. Three examiners with different levels of experience in US and US-based elastography, performed 10 valid EM on each subject. We defined their experience as follows: E1- no experience in elastography and less than 50 ultrasound (US) examinations, E2: more than one year elastographic experience and more than 500 US examinations and E3: more than 1000 US examinations, without any experience in elastography. We used the intraclass correlation coefficient (ICC), inter-rater agreement (Kappa coefficient) and concordance correlation coefficient to assess the inter- and intraobserver reproducibility.

***Results:*** We did not find significant differences between the means of EM obtained by the examiners overall and across study group [1.66 (E1) vs 1.66 (E2) vs 1.65 (E3), p=0.76]. The overall agreement between examiners was excellent: 0.94 (95% CI: 0.89-0.97). There was at least a good agreement between examiners (E1 vs. E3: k=0.80, 95% CI:0.67–0.94; E1 vs. E2: k=0.81, 95% CI:0.69–0.94), and good toexcellent in E2 vs. E3: k=0.89, 95% CI:0.82-0.96. The intraobserver reproducibility for each of the examiners was excellent, however the ICCs were higher in more experienced examiners in US: E1- 0.92, (95% CI:0.82–0.96) vs. E3-0.94 (95% CI:0.87–0.97) vs. E2-0.97 (95% CI:0.95–0.99). The concordance correlation coefficients were similar: E1 vs. E3-0.84, E1 vs. E2-0.89 and E3 vs. E2-0.89.

***Conclusion:*** The good ICCs and Kappa coefficients for the mean values show that THED is a reproducible method. Ultrasound experience did not significantly influence the results.

***Keywords:*** THED, elastography, liver

***PP-740***

## *Age-matched anatomical distribution and histology of colorectal polyps on colonoscopy: A real time five year single center experience in Cebu City, Philippines*

**Herlyn Abasolo, Enjel Gabriel**

*Cebu Doctors University Hospital, Cebu, Philippines*

***Background/Aims:*** Philippines is one of the countries with the most rapid increase in both the incidence and mortality from colorectal cancer, wherein around 17% occur in individuals below 40 years old (1, 2). The purpose of this study is to determine the age-matched distribution of polyps in relation to histology, specifically of adenomatous polyps.

***Materials and Methods:*** This is a retrospective study of all Filipino patients with colonic polyps who underwent colonoscopy for various indications at a private tertiary hospital in Cebu from January 2014 to December 2018. Demographic profile, indications for colonoscopy, colonic polyp location and histopathology results were collected. Data were analyzed using Statistical Package for Social Sciences version 22.

***Results:*** Majority of the patients with colonic polyps were male (56.3%) and mostly belongs to the 50 to 69 years age group (60.3%). Colon cancer screening is the most common indication. Adenomas are the most common type of polyp and majority are located in the sigmoid colon. A significant proportion of all types of colonic polyps, except for juvenile polyps are located in the left side of the stomach for both patients with ages less than 50 and those above 50 years (p value: 0.00). A subgroup analysis of adenoma revealed that a significant proportion of male patients harbor adenomas at 50-69 years age group (0.001) located in the left side of the colon (0.000).

***Conclusion:*** These data supports that majority of the polyps, including adenoma and carcinomas are usually located in the left side of the colon, specifically the sigmoid with detection still noted to be higher in patients above 50 years old. However, we cannot disregard the number of adenomas detected in young patients thus could form a bases for earlier screening initiation.

***Keywords:*** Colonic polyps, age-matched, adenoma

---

***PP-741***

## *Palliative surgery in Sudanese patients with advanced pancreatic cancer: Is any difference?*

**Dalia Mohamed Alamin Abass, Abdul Magid M Musaad Musaad**

*Ibn Sina Specialized Hospital*

***Background/Aims:*** Pancreatic cancer is the fourth leading cause of death and due to late presentation, the curative procedures is more challenging and difficult. Pancreatic cancer is not uncommon in Sudanese patients and usually presented late. The aim of this study is to show the outcome of palliative surgery in advanced pancreatic cancer and to reflect our local experience.

***Materials and Methods:*** It is prospective cross-sectional hospital-based study, it included 92 patients with advanced pancreatic cancer in Ibn Sina specialized hospital, data were collected and variables; age, gender, origin and clinical feature were measured, patients were classified based on type of surgery (single, double or triplebypass). Data collected and analyzed by using statistical package for social sciences (SPSS) computer program version 20. Qualitative data analyzed by using descriptive statistic t test and pearsonchi_square. The p value was considered significant if <0.05.

***Results:*** The mean age of the study was 65.4; male to female ratio was 1.8:1. Majority of the patients (21.7%) were from northern state; namely, Shwaiga, Mahas, Bederia, Gaalian, and 23.9% from Western state namely Baggara, Jomoaia and Four. Nearly two-third of the patients had double bypass, and the remaining were equally single and triple bypass. The main presenting symptoms were jaundice, dyspepsia and vomiting and it is significantly common among alcohol consumer. Dyspepsia was statistically early symptoms and serum aspartate transaminase (AST) and alkaline phosphatase (ALP) were statistically high. Less than 30% who survive more than one year. There is no statistically significant between type of bypass and the outcome.

***Conclusion:*** Outcome of those patients is not affected by modality of bypass, and high serum aspartate transaminase (AST) and alkaline phosphatase (ALP) could be of important prognostic factor, pancreatic cancer is common in certain populations.

***Keywords:*** Advanced, pancreatic cancer, palliative surgery

---

***PP-742***

## *Non-surgical treatment of bouveret syndrome*

**Maria Ana Rafael, Luísa Martins Figueiredo, David Horta, Alexandra Martins**

*Hospital Professor Doutor Fernando Fonseca, Amadora, Portugal*

***Introduction:*** Bouveret syndrome (BS) is a rare form of gallstone ileus, where the gallstone migrates through a cholecysto/choledo-duodenal fistula and impacts in the duodenum. It occurs more often in the elderly. Although its treatment has been surgical, endoscopic approaches have been used, taking into account patient's comorbidities.

***Case:*** We present the case of a 73 year-old man with morbid obesity, heart failure and arterial hypertension, who presented with abdominal pain, diarrhea and vomiting. After ultrasound revealed a thickened gallbladder with a large infundibular stone, a computed tomography confirmed a cholecysto-duodenal fistula and a 43mm gallstone in the third portion of the duodenum (D3). An upper endoscopy (UE) was performed, evidencing a gallstone occluding the entire duodenal lumen, with multiple unsuccessful extraction attempts. Because of high surgical risk, he was transferred to our hospital for an endoscopic treatment. A UE was performed after a glossopharyngeal nerve block, with electrohydraulic lithotripsy (EHL) of the gallstone. With multiple shots and using 6 probes, we created a tunnel that crossed the stone, culminating in the passage to the jejunum. Resolution of the occlusion and migration of several fragments downstream was achieved, with the largest fragments remaining in D3. The day after EHL, another UE was performed to remove the residual fragments, some with up to 25mm. Complete resolution of symptoms and laboratory abnormalities were achieved few days after the procedure.

***Conclusion:*** Eleven cases of BS treated with EHL have been described. Most of the gallstones were impacted in the bulb or in the second portion of the duodenum, the largest with 47mm in diameter. This case corroborates the endoscopic approach of this rare syndrome in high-risk patients. Although it is a slow procedure and can lead to duodenal wall perforation, it avoids a surgical intervention.

***Keywords:*** Bouveret syndrome, electrohydraulic lithotripsy

---

***PP-743***

## *Treatment of spontaneous hepatic hemorrhage due to hepatocellular adenoma rupture with selective arterial embolization*

**Maria Ana Rafael[1], Eduardo Dutra[2], Tiago Bilhim[2], Élia Coimbra[2]**

*[1]Hospital Professor Doutor Fernando Fonseca, Amadora, Portugal*
*[2]Centro Hospitalar de Lisboa Central, Lisbon, Portugal*

***Introduction:*** Hepatocellular adenoma (HCA) is a rare benign lesion most often seen in young women with a history of oral contraceptive use. Unlike other benign liver lesions, HCA has the potential for haemorrhage and malignant transformation. The most frequent manifestation of HCA is spontaneous hepatic haemorrhage (SHH), leading to acute abdominal pain and possibly progressing to hypotension and death. Haemostasis may be successfully achieved with arterial embolization.

***Case:*** We present the case of a 33-year-old woman with a suspected HCA rupture, presenting with SHH. A diagnostic arteriography and subsequent selective arterial embolization were performed. After a second arterial embolization due to persistent bleeding, she underwent elective surgery, without any complications. The diagnosis of HCA was confirmed by histology.

***Conclusion:*** Without emergent haemostasis, SHH can lead to haemorrhagic shock and death. Percutaneous arterial embolization is a less invasive alternative to laparotomy in hemodynamically stable patients with SHH. After successful haemostatic treatment, patients can undergo elective surgery to establish a definitive diagnosis and prevent rebleeding, without the risks of an emergent surgical procedure.

***Keywords:*** Hepatocellular adenoma, spontaneous hepatic haemorrhage, percutaneous arterial embolization

---

***PP-744***

## *Association between rutgeerts score and faecal calprotectin in Crohn's Disease after ileocecal resection: A monocentric retrospective study*

**Maria Ana Rafael, Filipa Bordalo Ferreira, Luísa Martins Figueiredo, Liliana Santos, Alexandra Martins, Ana Maria Oliveira**

*Hospital Professor Doutor Fernando Fonseca, Amadora, Portugal*

***Background/Aims:*** After ileocecal resection (ICR) in Crohn's Disease (CD), there is a risk of disease recurrence, with endoscopic lesions arising frequently before symptoms. Ileocolonoscopy is the gold standard to diagnose disease recurrence and must be performed 6-12 months after ICR. Rutgeerts score was developed to assess endoscopic severity of post-operative CD recurrence (i0 to i4). However, less invasive predictors have been proposed, such as faecal calprotectin (FC). Studies correlating FC with endoscopic activity are inconsistent. Some suggest FC cut-off values of 100-150µg/g to distinguish patients with or without endoscopic remission (ER). This study pretends to evaluate both the correlation between ileocolonoscopy and FC and the utility of FC as a predictor of endoscopic activity.

***Materials and Methods:*** From the 95 patients with CD submitted to ICR followed at our hospital, 27 were excluded due to absence of ileocolonoscopy and/or FC with an interval ≤ 4 months between exams. From de 68 patients included, 51.5% were women, 42.6% had colonic disease, 1.2% perianal disease and 52.9% had ER, defined as a Rutgeerts score of ≤ i1. Statistical analysis was performed with STATA, considering p-values <.

***Results:*** After adjusting for age at diagnosis, sex, concomitant colonic or perianal disease, a strong correlation between Rutgeerts score and FC was obtained (p-value 0.026; CI[0.0002-0.0032]). The difference between means of FC in patients with (136.08µg/g) and without (316.68µg/g) ER was statistically significant (p-value 0.0027). The correlation between ER with FC< 100µg/g and FC< 150µg/g were also statistically significant, adjusting for the same confounders (p-value 0.017; CI[0.23-2.32] and p-value 0.004; CI[0.55-2.92], respectively). Sensibilities/specificities of FC to detect endoscopic recurrence were 62.50%/69.44% for FC< 100µg/g cut-off and 59.38%/77.78% for FC< 150µg/g cut-off. Positive predictive values (PPV)/negative predictive values (NPV) were 64.52%/67.57% for FC< 100µg/g and 70.37%/68.29% for FC< 150µg/g.

***Conclusion:*** Although this is a small retrospective study, we found a strong correlation between FC values and Rutgeerts score after ICR. However, for the established cut-offs, sensibility, specificity, PPV and NPV were not sufficiently strong to consider FC as an alternative tool to detect endoscopic recurrence after ICR in CD.

***Keywords:*** Ileocecal resection, Crohn's disease, Rutgeerts score, fecal calprotectin

***PP-745***

## *Pregnancy in Wilson's disease*

**Alexandra Martins, Mariana Nuno Costa**

*Hospital Professor Doutor Fernando Fonseca, Amadora, Portugal*

***Introduction:*** Treatment of Wilsons disease (WD) during pregnancy is a challenge. Although the risk of teratogenicity with penicillamine is known, the risks of spontaneous abortion or foetal abnormalities outweigh the benefits of its suspension.

***Case:*** We present the case of a women diagnosed with Wilsons Disease at the age of 17, after an episode of rash and arthralgias, with elevated transaminases (AST 91 U/L, ALT 104 U/L) and spontaneous INR of 1.6. She had ceruloplasmin of 5mg/dL and urinary copper of 316 mcg/24h. The remaining metabolic causes, viral and autoimmune diseases were excluded, while no toxic consumptions were reported. Liver biopsy revealed hepatic portal fibrosis and piecemeal necrosis, with increased parenchymal copper (800ug/g). Haemolytic anaemia and neurologic abnormalities were excluded. No Kayser-Fleicher rings were noted. Penicillamine was started, having achieved transaminases normalization in 4 months. At the age of 29, she had normal transaminases and mild hepatomegaly in doppler ultrasound. She then got pregnant for the first time. At this time, penicillamine daily dose was reduced from 750mg to 300mg. She maintained a Gastroenterology follow-up every 6 weeks, with small adjustments in penicillamine (maximum of 300mg/day), according to urinary and calculated free copper levels. Transaminases remained normal, and no complications were reported during pregnancy or eutocic delivery. Penicillamine was increased to 750mg/day after birth. Her child is now a 3-year-old healthy boy.

***Discussion:*** Although zinc has a safer profile than penicillamine, studies concluded that the risk of abortion and teratogenicity was not diminished after switching from copper chelators to zinc in the preconceptional period. Parallel to this, excessive copper depletion has repercussions in foetal development. Therefore, it is currently not recommended to change the copper chelator, but reduce the usual dose instead, especially in the last trimester, to avoid insufficient foetal and maternal copper supply.

***Keywords:*** Wilsons disease, pregnancy, penicillamine

---

***PP-746***

## *A comic-style novel as a unique tool to create colorectal cancer awareness*

**Luc Colemont, Bruno Mettepenningen, Mario Boon, Mariacristina Federico**

*Stop Darmkanker Foundation, Antwerp, Belgium*

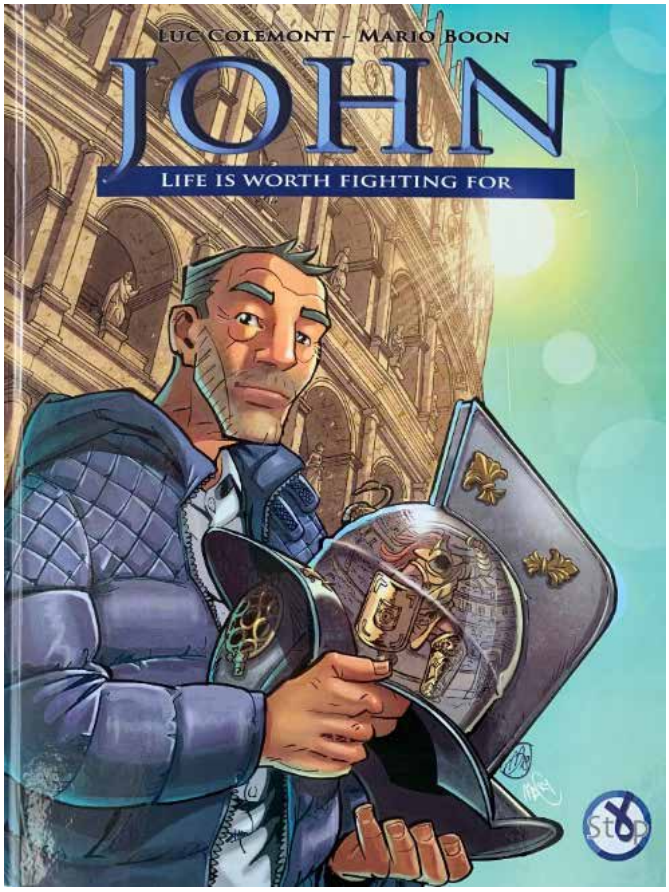
***Background/Aims:*** Colorectal cancer is the second largest cause of cancer-related mortality worldwide. Although many countries have well established screening programmes, the participation rates are still too low. A lack of knowledge is one of the key factors in why people don't get screened. Whilst people receive health information via various online and offline channels, unfortunately, not everyone has the same level of health literacy. To increase the awareness of the importance of early detection of colorectal cancer amongst the general public and minority groups using an easy and accessible method.

***Materials and Methods:*** We made a unique 56-page 'comic-style' novel entitled "John: life is worth fighting for". It tells the story of a 50-year old man who is diagnosed with Stage III colorectal cancer and the rollercoaster of emotions which follow. We used a gladiator-metaphor to compare the fight against colorectal cancer during treatment with chemotherapy. In Ancient Rome it took about six months to turn someone into a gladiator, the same period over which many patients are given chemotherapy. The novel is completed with a 2-page information file about colorectal cancer screening with the key message "Do the test", which runs throughout.

***Results:*** Within a period of 4 months the novel was launched in 4 different languages (Dutch, French, English and Italian), with more languages in the pipeline. More than 20,000 copies have already been distributed and the novel has received excellent feedback and support. It had a successful launch in the Belgian main stream media, which also contributes to our aim, increasing awareness of colorectal cancer. The Belgian Minister of Health- Maggie De Block- received the first copy and was highly impressed, sharing her appreciation on social media. All members of the European Parliament received a copy from MEP Lieve Wierinck.

***Conclusion:*** Comic-style stories are a very effective and interesting communication tool to help people learn and teach them about the prevention of illnesses. Our novel is a new weapon in the battle against colorectal cancer and the more information we can give, the fewer people will have to deal with this disease. By sharing knowledge, we can save lives.

***Keywords:*** Health literacy, awareness, graphic novel



RAAAA
AAH!
KTONK!
AAH!

***PP-747***

## *Does age matter? A case report of an ERCP done in the World's oldest documented patient*

**Enrik John Aguila, Julius Rustia**

*St. Luke's Medical Center-Global City, Taguig, Philippines*

ERCP has been advocated as a less invasive therapeutic intervention for the diagnosis and management of various pancreaticobiliary diseases in the aging population. However, the procedure is not without risk. Published literatures have shown different adverse outcomes with the oldest patient documented to be at 97-years-old. This case report of a 99-year-old male is the oldest ever to be recorded to undergo ERCP worldwide, hence is a vital addition to current practice. This is a case of a 99-year-old male who had a 1 week history of intermittent epigastric pain radiating to the back. He further developed jaundice associated with tea colored urine. On MRCP, there was choledocholithiasis causing biliary ectasia. After benefits and risks extensively discussed, patient underwent ERCP where a cholangiogram showed a dilated common bile duct with multiple filling defects. Sphincterotomy was done. There was difficulty inserting the stent due to unstrategic location of the ampulla but after multiple attempts, a 10 French biliary stent was successfully placed with good egress of bile. Post-procedure, he developed pancreatitis but eventually improved after conservative management. Early diagnosis and treatment of choledocholithiasis is important to improve the prognosis of very elderly patients. If proven to have biliary duct stones on initial diagnostics, ERCP is recommended. Data on the effectiveness and safety of ERCP on people aged 90 years or older are limited but studies have shown that they have increased rates of bleeding, cardiopulmonary events and death, hence should be approached with caution. ERCP appears to be relatively safe in elderly patients but benefits and risks should be extensively discussed to the patient and his family to help in the clinical decision-making and consent process. Strategies to minimize risk of complications such as pre-procedural risk assessment and medical management serve as preemptive measures and should always be taken into consideration.

***Keywords:*** ERCP, elderly, choledocholithiasis

---

***PP-748***

## *Sarcopenia in patients with nafld : Paradigm of eggs and chickens*

**Ayşenur Hoş, Semih Özyurt, Müjdat Kara, Berrin Karadağ, Nurdan Tözün**

*Acıbadem University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Non-alcoholic fatty liver disease (NAFLD) is rapidly becoming the leading cause of chronic liver disease worldwide. Recently growing interest has been directed to sarcopenia in chronic liver diseases. The decline in lean body mass and sarcopenia, have been recognized as one of the comorbidities associated with liver disease and a determinant of prognosis in liver transplanted patients. The mechanisms by which sarcopenia affects the outcome of NAFLD are still unclear. The aim of our study was to evaluate the frequency of sarcopenia in patients with NAFLD and its relation with clinical and elastographic findings.

***Materials and Methods:*** Patients who applied to the departments of check-up, gastroenterology and endocrinology from April to October 2018 and who had ultrasound findings compatible with NAFLD were included into the study. Healthy people with no known disease served as controls. Standard laboratory tests such as fasting blood glucose, HbA1C, homeostatic model assessment (HOMA), ALT, AST, GGT, uric acid, creatinine, total protein, albumin, triglyceride, HDL, LDL, total cholesterol and 25-OH Vitamin D levels were determined. Body composition, hand-grip strength and anthropometric measurements were performed. The skeletal muscle mass index (%) (total appendicular skeletal muscle mass (kg)/weight (kg) × 100), a validated measure of sarcopenia, was assessed by bioelectrical impedance analysis( BIA). Sarcopenia was defined as a skeletal muscle mass index ≤ 7.26 kg/m$^2$ in males and ≤ 5.5 kg/m$^2$ in females. Hand-grip test results were assessed according to

CHS criteria. Steatosis and fibrosis were assessed by CAP and transient elastography (Echosens-502-Paris).In addition Food consumption frequency and SARC-F questionnaire were filled in both groups. Statistical analysis was carried out using SPSS version 4.0 (2018) software and parametric and nonparametric statistical methods.

***Results:*** A total of 100 NAFLD patients and 26 healthy controls with a mean age of 45±15 and 29±9 years respectively were included. In 20% (n=20) of the patients with non-alcoholic fatty liver, the SMI value was sarcopenic (p=<0.001); 20% (n=20) had lower hand grip (p=0.023) and 5% (n=5) had both lower muscle mass and lower muscle strength (p=0.041) compared to healthy group. Laboratory tests showed low ALT(p=0.001), low AST(p=0.031), high HOMA (p=0.007) and HbA1c (p=0.020) in patients with sarcopenic NAFLD. Likewise hepatic steatosis (p<0.001) and liver stiffness (p=0.030) were significantly higher in this group. Patients with sarcopenic NAFLD were found to be older (p<0.001), were short in size (p=0.031), had significantly lower forearm circumference (p=0.006), and lower total bone weight (p<0.001). No significant difference was found in daily protein, fat, carbohydrate consumption and SARC-F scale in patients with sarcopenic and non-sarcopenic NAFLD.

***Conclusion:*** Sarcopenia can be associated with steatosis and fibrosis in NAFLD and may be a therapeutic target in the future. Additional studies are needed to evaluate the effect of sarcopenia on NAFLD progression and prognosis of NAFLD induced chronic liver disease.

***Keywords:*** BIA, CAP, Hand-grip, NAFLD, sarcopenia, SMI

---

***PP-749***

## *Gastrointestinal tuberculosis mimicking Crohn's disease*

**Maria Ana Rafael, Luísa Martins Figueiredo, Ana Maria Oliveira, Mariana Nuno Costa, Alexandra Martins**

*Hospital Professor Doutor Fernando Fonseca, Amadora, Portugal*

***Introduction:*** Gastrointestinal tuberculosis (TB) has non-specific manifestations, which can mimic Crohn's disease (CD). Both granulomatous diseases can present with abdominal pain, weight loss, chronic diarrhea and hematochezia, and have endoscopic and histologic similarities. Additionally, gastrointestinal TB presents without concomitant pulmonary TB in ¾ of the patients.

***Case:*** We present the case of a 24 year-old woman with abdominal pain, bloody diarrhea and weight loss for three months. She underwent an outpatient colonoscopy, which revealed scattered ulcers, from the rectum to the transverse colon, where the exam was interrupted due to the severity of lesions. Histopathology revealed architectural distortion, with an inflammatory process suggestive of CD. At admission to our hospital, she had C-reactive protein (CRP) of 8mg/dL, no leucocytosis, erythrocyte sedimentation rate of 57, negative stool cultures and Clostridium difficile toxin. Abdominal ultrasound revealed circumferential parietal thickening of the ascending colon and increased echogenicity of the adjacent fat. Salicylates, ciprofloxacin and metronidazole were initiated, with partial clinical and CRP levels improvement. However, because her chest radiograph revealed pulmonary cavitations, a thoracic, abdominal and pelvic computed tomography (CT) scan was performed. CT scan suggested the diagnosis of active pulmonary TB and revealed a concentric and irregular thickening of the cecum, extending to the last ileal loop, with multiple locoregional non-necrotic lymph nodes. Therefore, bronchofibroscopy, total colonoscopy with ileoscopy and upper endoscopy were performed. Ulcers of up to 25mm in diameter were found in the terminal ileum, colon (mainly on the right side) and second portion of the duodenum. Acid-fast bacilli were present in both bronchoalveolar lavage fluid and gastric juice. She immediately started anti-TB drugs, with clinical resolution after 2 weeks of treatment.

***Conclusion:*** When referred to our hospital, she had a presumptive diagnosis of CD based on clinical and endoscopic findings. She has never had respiratory complaints, sweats or fever, and HIV serology was negative. This clinical case shows how TB manifestations can be misleading and sometimes forgotten.

***Keywords:*** Gastrointestinal tuberculosis, Crohn's Disease

***PP-750***

## *Survival analysis and risk factors for recurrence of hepatocellular carcinoma after hepatic resection: A single centre experience in Malaysia*

**Ahmad Ramzi Yusoff[1], Suryati Mokhtar[2], Kin Foong Lim[2], Syakirah Samsudin[2], Krishnan Raman[2], Harjit Singh[2]**

*[1]Department of Surgery, School of Medicine, University Teknologi Mara, Sg. Buloh, Selangor, Malaysia*
*[2]Hospital Selayang, Batu Caves, Selangor, Malaysia*

***Background/Aims:*** To describe the clinical features and survival of patients with hepatocellular carcinoma (HCC), and ascertain risk factors affecting tumour recurrence after hepatic resection.

***Materials and Methods:*** A retrospective cohort study was conducted in Selayang Hospital, Malaysia from January 2012 to December 2014. The medical records of all patients diagnosed with HCC were retrieved from an electronic hospital database. Data collection involved demography, clinical presentation, diagnostic methods, histopathological examination, surgical treatment and its outcome. Statistical analysis was performed using SPSS ver. 20.0 and survival was plotted on Kaplan-Meier curve.

***Results:*** Over the 3-year period, 494 patients were provisionally diagnosed with HCC but only 70 resectable and histologically confirmed HCC patients were included. Seventy percent were male and mean age was 59 years. Hepatitis B (60%) was the main aetiology of cirrhosis. Majority had Child-Pugh class A (93%) with elevated alpha-fetoprotein (AFP) level in 43%. Major hepatic resections were performed in 43% of cases with 17%morbidity and 0%, 30-day postoperative mortality. Nearly half of the patients (49%) developed tumour recurrence and were attributed to hepatitis B status (*P*=0.026), extent of hepatic resection (p=0.028) and tumour size >5cm (p=0.011). The 1-, 2- and 3-year cumulative survival rates were 79%, 59%and 52%respectively. Univariate analysis that adversely affected long-term survival were AFP level > 400 ng/mL (p=0.019), tumour >5cm in size (p=0.001), positive margin involvement (p<0.001), positive vascular invasion (p=0.006), AJCC TNM Stage (p=0.013) and tumour recurrence (p<0.001). By multivariate analysis, only AFP >400 ng/mL (hazard ratio [HR], 2.7; 95% CI, 1.1-6.7) and tumour recurrence (HR, 3.8; 95% CI, 1.4-10.3) were independent factors of adverse long-term survival.

***Conclusion:*** Hepatic resection is an optimal therapy for early HCC although it is commonly associated with recurrence particularly after major resection for large HBV-related HCC. High preoperative AFP level and subsequent tumour recurrence were important predictors of poor survival following successful hepatic resection for HCC.

***Keywords:*** Hepatocellular carcinoma, survival analysis, hepatic resection, tumour recurrence

---

***PP-751***

## *A study of the indications and findings at colonoscopy in a tertiary hospital in North-Central Nigeria*

**Matthew Bojuwoye, Abdulfatai Olokoba, Opeyemi Bamidele, Kenechukwu Okonkwo, Aminu Aliyu, Dupe Hinmikaiye**

*University of Ilorin Teaching Hospital, Ilorin, Nigeria*

***Background/Aims:*** Colonoscopy is an invaluable tool used in the diagnosis of colorectal diseases. Some of these diseases are preventable with timely screening and appropriate intervention. We, therefore, studied the spectrum of colorectal diseases diagnosed at colonoscopy and reviewed the indications for the procedure in our hospital.

***Materials and Methods:*** This was a retrospective study of patients who underwent colonoscopy between March 2013 and February 2019. The Endoscopy register was reviewed to evaluate the indications and findings at colonoscopy.

***Results:*** A total of 314 patients underwent colonoscopy during the study period. The age range of the patients was 14-90 years with a mean age (SD) of 57.0 (15.1) years. There were 190 (60.5%) males and 124 (39.5%) females. The commonest indication for colonoscopy was rectal bleeding 132 (42.0%) followed by suspected colorectal malignancy 70 (22.3%), abdominal pain 24 (7.6%), chronic diarrhea 20 (6.2%), constipation 17 (5.4%), surveillance 13 (4.1%), change in bowel habit 9 (2.9%), occult bleeding 6 (1.9%) and others 23 (7.3%). The colonoscopic findings were normal findings 97 (30.9%), haemorrhoids 94 (29.9%), colorectal polyps 54 (17.2%), diverticulosis 36 (11.5%), rectal mass 31 (9.9%), colonic mass 27 (8.6%), colitis 21 (6.7%), others 15 (4.8%). The findings were not mutually exclusive. Our diagnostic yield was 69.1%. Of the 58 cases of colorectal malignancy and 36 cases of colonic diverticulosis, 39 of the former were observed among patients aged >50 years compared to 19 among patients aged ≤ 50 years (p=0.688) whereas 35 of the latter was observed among patients aged >50 years compared to 1 among patients aged ≤ 50 years (p<0.05).

***Conclusion:*** The commonest indication for and lesion seen at colonoscopy was rectal bleeding and haemorrhoids respectively. The prevalence of colorectal mass and diverticulosis was higher among persons aged >50 years than persons aged ≤ 50 years.

***Keywords:*** Colorectal diseases, colonoscopy, indications

---

***PP-752***

## *Drug induced sweet syndrome*

**Serkan Duman, Zeynep Ellik, Hülya Çetinkaya**

*Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*

Sweet syndrome (SS) is a rare inflammatory disorder presenting with tender, skin lesions, accompanied by fever, diffuse neutrophilic infiltrate in the dermis. It is associated with malignancy, drugs, infections and autoimmune diseases. There are one previous reported cases of the use of vedolizumab induced Sweet Syndrome. We report a 30-year-old after the first dose of intravenous vedolizumab presenting tender, nonpruritic, round erythematous-violaceous, some with necrotic surface plaques occurred on the hands, on the nose, ears and forearm and upper lip. The temporal relationship between commencing vedolizimab and the abrupt onset of cutaneous symptoms and histopathological evaluation were consistent with drud induced SS. Withdrawal of vedolizumab and treatment with oral corticosteroid therapy resulted in complete resolution of the skin lesions.

***Keywords:*** Drug induced sweet syndrome, vedolizumab, Crohn's disease, neutrophilic dermatosis

---

***PP-753***

## *The efficacy of abdominal massage in functional constipation: A randomized placebo-controlled trial*

**İrem Gül Doğan[1], Ceren Orhan[1], Türkan Akbayrak[1], Yasemin Balaban[2], Cavanşir Vahabov[2], Esra Üzelpaşacı[1], Serap Özgül[1]**

*[1]Department of Physical Therapy and Rehabilitation, Hacettepe University School Medicine, Ankara, Turkey*
*[2]Division of Gastroenterology, Department of Internal Medicine, Hacettepe University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Functional (primary) constipation (FC) is a symptom-based heterogeneous chronic disorder which may cause serious morbidity and decreased quality of life in all ages and cultures. FC is a multifactorial disease results from the dysfunction of anorectal neuromuscular complex, brain-bowel axis and colonic regulation. The first-line treatments in the management of FC is conservative approaches. Abdominal massage is one of them that stimulates parasympathetic activity,

decreases abdominal muscle tension and increases bowel movements. The aim of this study was to investigate the effectiveness of abdominal massage in FC in a randomized placebo-controlled design.

***Materials and Methods:*** FC was diagnosed according to Rome IV diagnostic criteria, and 74 subjects over 18 years of age were included. Patients were randomized into 2 groups by block randomization procedure. Group I had abdominal massage 3 days per week for 4 weeks, whereas group II underwent placebo ultrasound (PU) 2 days per week for 4 weeks. Both groups also received lifestyle advices for FC. The primary outcome measurement was constipation severity which was evaluetad by Constipation Severity Instrument (CSI). Secondary outcome measurements were the quality of life assessed by Patient Assessment of Constipation Quality of Life Questionnaire (PAC-QOL), stool consistency assessed by Bristol Stool Scale (BSS) and defecation time/frequency evaluated by 7-day bowel diary.

***Results:*** A total of 74 patients (37 in each groups, 60 (%81) women, mean age 38.26±11.57 years) completed the study. There was a statistically significant difference in both groups from the baseline to the end of treatment in all outcome measurements ($p<0.05$). Inter-group comparisons also showed statistically significant differences in all outcome measurements ($p<0.05$, Table 1).

***Conclusion:*** The present study is the first randomized placebo-controlled trial that investigates the effects of abdominal massage in patients with FC. Although, both abdominal massage and placebo ultrasonography improved all outcome parameters, abdominal massage was better than placebo ultrasonography in the management of FC.

***Keywords:*** Functional constipation, abdominal massage, randomized placebo-controlled trial

***Table 1.*** Intragroup and intergroup comparisons of outcome measurements

| | Group I | | Group II | | | | |
|---|---|---|---|---|---|---|---|
| Outcome Measurements | Baseline | Post-T | Baseline | Post-T | $p^1$ | $p^2$ | $p^3$ |
| CSI (total) | 43±8.11 | 13.05±4.82 | 43.35±7.13 | 31.22±10.03 | <0.001* | <0.001* | <0.001* |
| Obstructive Defecation | 23.30±4.39 | 7.30±2.95 | 23.43±3.91 | 17.54±5.44 | <0.001* | <0.001* | <0.001* |
| Colonic Inertia | 13.78±2.92 | 4.30±2.25 | 14.59±2.66 | 10.70±4.84 | <0.001* | <0.001* | <0.001* |
| Pain | 5.92±4.97 | 1.46±2.37 | 5.32±4.13 | 2.97±3.82 | <0.001* | <0.001* | 0.004* |
| PAC-QQL (total) | 96.16±17.02 | 42.14±11.06 | 102.27±14.24 | 75.57±19.25 | <0.001* | <0.001* | <0.001* |
| Physical Discomfort | 14.68±2.99 | 5.95±1.94 | 15.16±2.68 | 10.65±3.40 | <0.001* | <0.001* | <0.001* |
| Psycho-social Discomfort | 20±7.25 | 10.84±3.17 | 22.49±6.85 | 17.49±4.37 | <0.001* | <0.001* | <0.001* |
| Worries/Concerns | 39.43±9.70 | 17.65±5.22 | 41.70±7.05 | 30.86±9.66 | <0.001* | <0.001* | <0.001* |
| Satisfaction | 22.32±2.84 | 7.65±2.67 | 22.92±1.32 | 16.84±4.47 | <0.001* | <0.001* | <0.001* |
| BSS | 1.73±0.56 | 3.59±0.49 | 1.62±0.79 | 1.84±1.01 | <0.001* | 0.039* | <0.001* |
| Defecation frequency/week | 1.78±0.47 | 5.97±1.77 | 1.62±0.49 | 2.89±1.57 | <0.001* | <0.001* | <0.001* |
| Duration of defecation (min) | 14.46±5.50 | 6.22±2.74 | 12.84±6.82 | 10.41±6.16 | <0.001* | 0.002* | <0.001* |

Data are presented as mean±standard deviation

CSI: Constipation Severity Instrument, PAC-QOL: Patient Assessment of Quality of Questionnaire, BSS: Bristol Stool Scale

p1: Comparison of changes in outcome measurements between baseline and post-treatment in Group I, Wilcoxon Test

p2: Comparison of changes in outcome measurements between baseline and post-treatment in Group II, Wilcoxon Test

p3: Comparison of changes (Baseline and Post-treatment) between Group I and Group II, Mann–Whitney U Test

* $p<0.05$

***PP-754***

## *Laparoscopic adrenalectomy in a patient with adrenal cortical adenoma*

**Sandra Milena Rojas Molina, Rolando Medina, Hector Adolfo Polania, Juan Felipe Sanjuan**

*Universidad Surcolombiana, Huila, Colombia*

***Introduction:*** Since the first report published in 1890 by Thornton, the number of surgeries for the extirpation of the adrenal glands has increased at the same rate as the knowledge of the importance of the adrenal hormones and their alterations. Open adrenalectomy has been the treatment of choice for adrenal tumors until the early 1990's, when Gagner and his colleagues published a pioneering study that introduced laparoscopic adrenalectomy. The growing skill of surgeons and the improvement of surgical devices over time allowed this technique to become the Gold Standard for the treatment of adrenal tumors, which replaces open adrenalectomy in most cases.

***Case:*** A 36-year-old female patient with a clinical picture of 1 year of evolution consisting of weight gain associated with the appearance of mass in the posterior neck region, violet striae in the abdomen, asthenia and adynamia. During the last days feeling of edema in lower limbs, associated with headache of frontal predominance and high blood pressure figures for which consultation. History of arterial hypertension and type II diabetes mellitus, weight 83 kilos, size 155 cm, ASA 4 U, entrance examinations Corstisol am. 337 ng/ml, ACTH 1.6 pg/ml, Cortisol free urine 24 hours 979 ug/24 hours, Hemoglobin glycosilase 7.1%, Tac abdomen and pelvis 28/03/18 nodule in the left suprarenal gland 18 mm, density 20-25 UH, bilateral renal lithiasis. RNM abdomem superior simple and contrasted. Hepatic steatosis, at the level of the left suprarenal gland, oval formation of 29.6*27 mm of isointense predominance in T1 is evident. Surgical procedure was performed by laparoscopy, achieving a total dissection of the lesion, without the presence of complications during anesthetic induction, with adequate evolution during the postoperative period. Pathology reports cortical adrenal adenoma of left adrenal. During postoperative monitoring patient presents improvement of symptoms of admission and loss of weight with control of blood pressure figures.

***Conclusion:*** Laparoscopic adrenal surgery is a safe and effective option for the treatment of unilateral adrenocortical primary adenomas. The surge in experience of surgeons and the very low rate of complications have paved the way for the application of fast-track surgery, whose potential should also be investigated in patients with hypercortisolism.

***Keywords:*** Laparoscopic adrenalectomy, adrenal cortical adenoma

***PP-755***

## *Is a single-capsule bismuth-based quadruple therapy useful for Helicobacter pylori eradication after previous treatment failures?*

**Catarina Correia[1], Nuno Almeida[1], Carina Leal[2], Diogo Branquinho[4], Alexandra Fernandes[2], Helena Vasconcelos[2], Isabel Bastos[4], Luis Tome[1]**

*[1]Centro Hospitalar E Universitário De Coimbra, Coimbra, Portugal*
*[2]Centro Hospitalar De Leiria, Leira, Portugal*
*[3]Faculdade De Medicina Da Universidade De Coimbra, Coimbra, Portugal*
*[4]Centro Hospitalar Do Baixo Vouga, Aveiro, Portugal*

***Background/Aims:*** *Helicobacter pylori (H. pylori*) infection is highly prevalent in Portugal and its eradication is formally recommended in multiple circumstances. However, the indiscriminate use of antimicrobials has led to a drastic rise in antibiotic resistance, with failure of traditional eradication schemes. Bismuth was not available in this South-European country, but a single-capsule bismuth-based quadruple treatment became recently available. This study aims to determine whether this quadruple regimen is useful as a second-line or salvage therapy.

***Materials and Methods:*** This was a multicentric, retrospective study, with most patients included in a prospective database but without any direct intervention of the investigation team before or during treatment. All consecutive patients that were treated with bismuth-based quadruple therapy as first-line, second-line or salvage treatment between July-2017 and Abril-2019 were enrolled. Their medical records were reviewed and clinical and laboratorial parameters, as well as data on treatment efficacy and adverse events were retrieved. Patients were also contacted by telephone after treatment in order to confirm compliance (considered as adequate when at least 90%of prescribed medication was taken), adverse events and global satisfaction with this specific therapy.

***Results:*** A total of 242 subjects were included (female – 66.5%; mean age – 55.52±13.66 years). Patients had previously completed a mean of 1.00±0,97 eradication schemes (0 to 5): triple clarithromycin-based – 29.3%; sequential – 21.5%; concomitant – 7.0%; fluoroquinolone-based – 5.8%; rifabutine-based – 0.8%. The proton pump inhibitor of choice was esomeprazole (43.8%), followed by omeprazole (24.4%). Compliance was achieved in 94.6%and the overall eradication rate was 92.1% (95%confidence interval: 88.8-95.5). Treatment-related adverse effects were experienced by 109 patients (45.0%), being mild in 57, moderate in 34 and severe in 18. The main drawbacks of the treatment in the patient's perspective were its' high price (49.6%) and the adverse effects (14.9%). Failure to eradicate *H. pylori* was correlated with the following: previous rifabutine-base scheme (14.3%vs. 0%) and higher number of previous treatment regimens (1.84±1.43 vs. 0.93±0.89).

***Conclusion:*** In this South-European country a single-capsule bismuth-based quadruple therapy is an excellent alternative in patients who have failed previous eradication schemes, with acceptable compliance and side effects.

***Keywords:*** *Helicobacter pylori*, bismuth, rescue therapy

---

***PP-756***

## *Association of antibiotic type utilization and duration of antibiotic use with healthcare facility-onset, healthcare facility-associated (HO-HCFA) clostridium difficile infection*

**Marc Julius Hernandez Navarro, Sherrie Isabel Querubin De Ocampo**

*Institute of Digestive and Liver Diseases, St. Lukes Medical Center- Quezon City, Philippines*

***Background/Aims:*** *Clostridium difficile* is an enteric pathogen that may opportunistically colonize the human intestine following antibiotic therapy. The incidence from other studies of CDI in hospitalized patients ranges from 3% to 29% and pro-

portion of HO-HCFA CDI among *C. difficile*-associated diarrhea was documented at 61.6%. The main objective of the study is to determine the association of antibiotic type utilization and duration of antibiotic use with HO-HCFA *Clostridium difficile* infection among patients admitted at St. Luke's Medical Center.

***Materials and Methods:*** *Study Design:* Retrospective, cross-sectional; *Study Population:* Adult patients with HO-HCFA CDI; *Outcome Measures:* Antibiotic type and duration of antibiotic utilization as independent variables while the dependent variables were the proportion of healthcare facility-onset, healthcare facility-associated (HO-HCFA) *Clostridium difficile* infection

***Results:*** This study showed that among the 1863 patients who were tested for *Clostridium difficile* Infection from January 2014 to December 2018, only 89 (4.78%) patients were tested positive. The five-year prevalence of HO-HCFA CDI in St. Luke's Medical Center was reported at 2.42%and the proportion of adults with HO-HCFA CDI among the cases of patients who tested positive for CDI was 41.6%. Upon chart review, it was noted that their commonly utilized antibiotic class was Beta-lactams, specifically Carbapenems (70.27%), Penicillins (67.57%) and Cephalosphorins (67.57%). It was also reported that among adult patients with HO-HCFA CDI, 57%occurred within the first 7 days of exposure to antibiotics and 43% occurred after 7 days of exposure to antibiotics.

***Conclusion:*** The five-year prevalence and the proportion of adult patients with healthcare facility-onset, healthcare facility-associated *Clostridium difficile* infection (HO-HCFA CDI) in St. Luke's Medical Center were noted to be lower, compared to the statistics reported from the previous studies. This can be attributed to the stringent surveillance and an improved antibiotic policy/stewardship in our hospital.

***Keywords:*** Retrospective, cross-sectional, clostridium difficile Infection, HO-HCFA CDI

---

***PP-757***

## *Hepatitis E virus epidemiology of patients with chronic hepatitis C in Turkey*

**Yasemin Balaban, Abdullah Tarık Aslan, Fatma Nur Akdoğan, Alpaslan Alp, Osman Dağ, Şefika Ayar, Fuad Mustafayev, Cem Şimşek, Javansir Vahabov, Tolga Yıldırım, Hakan Göker, Koray Ergünay, Gülşen Hasçelik, Yunus Erdem, Yahya Büyükaşık, Tuğrul Purnak, Halis Şimşek**

*Hacettepe University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Hepatitis E virus (HEV) infection is being increasingly reported. Since there is no approved vaccine, the only way to prevent the infection is to avoid transmission. This study aimed to investigate the prevalence and risk factors for HEV seropositivity and viremia among patients with chronic hepatitis C (CHC) as a risk group.

***Materials and Methods:*** This is a prospective study including adult patients who are in clinical and virological remission for CHC. The serological and virological assays were performed in patients' sera in biobank. After viral RNA extraction and cDNA synthesis procedures, HEV specific well-conserved genomic areas (ORF-1 and ORF-2) were investigated by in house nested PCR for genotype testing and HEV serology with ELISA.

***Results:*** Only one of 75 patients had concomitant anti-HEV IgM and anti-HEV IgG seropositivity without any signs of acute hepatitis. Anti-HEV IgG was harbored by 16 (21.3%) patients. HEV viremia could not be detected in any patient. The demografic features of seropositive and seronegative groups were summarized at Table1. Cirrhosis was prevelant in both groups as seen in one forth of patients. As compatible with previous literature, Anti-HEV IgG positive patients were older (58.0 vs 71.0, p=0.01). Remaining risk factors of HEV infection were similar in both groups.

***Conclusion:*** In Turkish CHC patients, anti-HEV IgM and IgG positivity were 1.3%and 21.3%, respectively. None of the patients was viremic for HEV. We could not identify any risk factors for HEV seropositivity except the older age. Thus, larger scale studies are warranted to elucidate possible risk factors for HEV transmission.

***Keywords:*** HCV, HEV, prevalance

***PP-758***

## *Entecavir is safe and effective in long term for the treatment of hepatitis B in immunocompromised children.*

**Manzoor Ahmad Wani, Jaswinder Singh Sodhi, Showkat Zargar, Ghulam Nabi Yatoo, Altaf Shah**

*Sheri Kashmir Institute of Medical Sciences, Soura, Srinagar, Jammu and Kashmir, India*

***Background/Aims:*** Hepatitis B infection is common in cancer patients and prompt treatment is necessary in case of hepatitis B flare which can otherwise result in life threatening complications. The objective of this study was to assess the long term safety and efficacy of entecavir in immunocompromised children with hepatitis B as it has never been studied.

***Materials and Methods:*** This single center prospective cohort study was conducted on children with malignancies referred to our department with evidence of hepatitis B infection. Only those children were included in the study who had HBsAg positive, ALT more than 2 times upper limit of normal and HBV DNA was more than 20,000IU/mL. These children were put on entecavir and prospectively observed upto 192 weeks. Primary efficacy endpoint was the proportion of patients who achieved undetectable HBV DNA at 48 weeks of treatment. Other efficacy end points were the proportion of patients with ALT normalization and HBsAg seroconversion at weeks 48 and 96 weeks.

***Results:*** Total of 41 children met the inclusion criteria, out of which 5 children died due to malignancy and 5 were lost on follow up. Mean log DNA was 7.67 at the start which after starting entecavir reduced to 4.1, 2.8, 1.19, 1.09 and 0.84 at 12, 24, 48, 72 and 96 weeks respectively ($p<0.0001$). Mean ALT decreased from 332.5 which reduced to 190, 115, 63, 46 at 4, 12, 24 and 48 weeks ($p<0.0001$). 67.7% achieved the primary outcome and had undetectable DNA at 48 weeks which increased to 26 (83.9%) at 96 weeks. At 48 weeks, 80.6% patients achieved ALT normalization. 30% developed HBeAg seroconversion. Two patients developed virological breakthrough, one at 96 weeks and another at 192 weeks. No significant adverse effects were observed.

***Conclusion:*** Entecavir is safe and effective in long term for the treatment of hepatitis B in immunocompromised children.

***Keywords:*** Entecavir, hepatitis B, immunocompromised, children

---

***PP-759***

## *Impact of severity of gastrointestinal symptoms on health related quality of life (HRQoL) in physical, emotional and social domains: A cross sectional study from Karachi, Pakistan*

**Bisma Imtiaz, Adeel Abid, Muhammad Muneeb Hussain, Hania Shahzad, Faryal Subhani, Safia Awan, Shahab Abid**

*Aga Khan University, Karachi, Pakistan*

***Background/Aims:*** There is a paucity of data related to HRQoL for Gastrointestinal (GI) symptoms. This study is aimed to evaluate the impact of (GI) symptoms on an individual's overall HRQoL and the physical social and emotional well-being.

***Materials and Methods:*** GI Quality of Life Index (GIQLI) was assessed using a validated questionnaire. Patients subjected to HRQoL questionnaire were categorized in 2 groups based on overall GI symptoms scores of ≤19 (group A) and ≥20 score as (group B). Subset analysis was done by grouping patients with alarm GI symptoms vs. those without alarm symptoms and their impact on social, emotional and physical domains were assessed. All statistical tests were two sided and $p<0.05$ was taken statistically significant.

***Results:*** Out of total 248 participants, 136 (54.8%) were male. Mean age was 42.3±14 and GIQLI score was 55.4±17.8. Among the four domains, score of GI symptoms was 22.8±9.6; physical domain; 14.0±6.3, emotional domain; 10.8±3.9

and social domain was7.4±3.6. The overall GIQLI score was significantly lower in males (53.2±19.1) compared to females (53.2±19.1 vs. 58.1±15.7; p=0.02). In the physical domain, obese patient had a lower mean score of 10.5±4.9 whereas older age patients >50 years had a lower mean social domain. Patient with alarm GI symptoms (0 to 2 score) had significant low mean overall scores in physical and social domains (Figure 1). While patient with overall GI symptoms score ≤19 had a low physical, emotional and social scores (Figure 2). Multivariate analysis showed that overall low GI symptoms score was associated with low scores in physical domain (odd ratio; 3.20; p<0.001), emotional score (odd ratio:1.95; p=0.02) and social (odd ratio:2.10; p=0.01) domains.

***Conclusion:*** Our findings suggest that patients with overall low overall GI symptoms score have a poor quality of life in physical, emotional and social domains. Furthermore, alarm symptoms have a detrimental effect on physical and social well being of a patient. Hence we infer, if the clinicians were to employ the GIQLI Index while assessing the patient and specifically address the low scores, it would enhance the HRQoL thereby improving the compliance to treatment.

***Keywords:*** Health outcomes, gastrointestinal symptom rating scale, quality of life

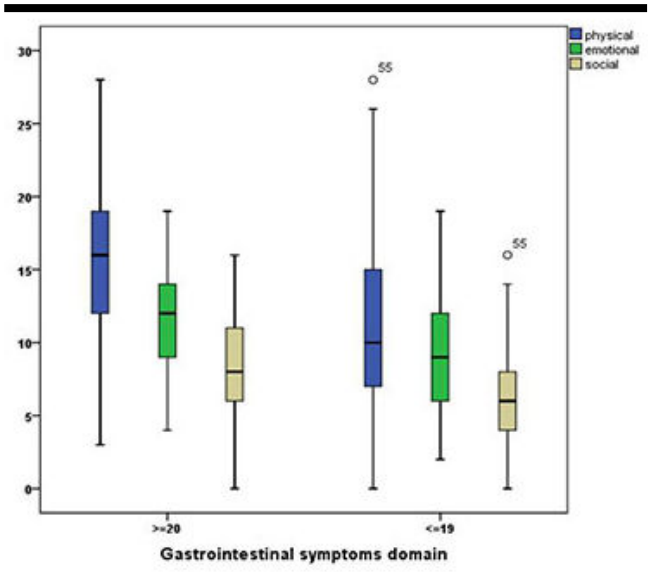



**Figure 1.** Comparison of GI alarm symptoms and physical, social and emotional domain. Data is presented as box plots, Boxes represent the 25th, 50th (median) and 75th percentiles.

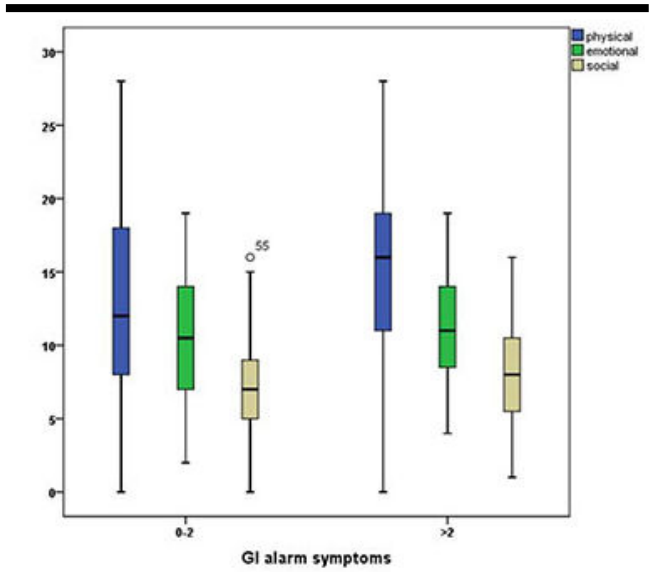



**Figure 2.** Comparison of overall GI symptoms scre with physical, social and emotional domain. Data are presented as box plots, Boxes represent the 25th, 50th (median) and 75th percentiles.

***PP-760***

## *A new score based on survival-related variables in patients with decompensated cirrhosis*

**Hüseyin Semiz[2], İlker Turan[1], Fulya Günşar[1], Galip Ersöz[1], Zeki Karasu[1], Ömer Özütemiz[1], Ulus Salih Akarca[1]**

*[1]Department of Gastroenterology, Ege University School of Medicine, İzmir, Turkey*
*[2]Department of Internal Medicine, Ege University School of Medicine, İzmir, Turkey*

***Background/Aims:*** Decompensation decreases the life expectancy in liver cirrhosis. In order to estimate the timing of liver transplantation and appropriately manage patients, predicting the survival is highly important in patients with decompensated cirrhosis. The MELD score and its modifications were developed to estimate the 3-month mortality and to determine the priority of transplantation. Our objectives in this study is to investigate the variables associated with life expectancy in patients with decompensated liver cirrhosis and to establish a predictive scoring system.

***Materials and Methods:*** Patients diagnosed with decompensated liver cirrhosis between January 1999 and November 2018 were evaluated. The relationship between basic demographic data, biochemical tests and clinical outcomes with life expectancy of patients was studied. For this, the Kaplan-Meyer analysis was used for the categorical data and the Cox regression analysis was used for the parametric data.

***Results:*** A total of 744 patients were evaluated. Since 295 of these patients did not have enough data and 21 had no evidence of decompensation, 316 patients excluded. Of the 428 patients included in the analysis, 286 were male (66.8%) and 142 were female (33.2%). The mean age was 63±11 years (median:64, lower/upper limit:18-89). The follow-up period was 5.75±4.49 years. During the follow-up period, 26 patients were transplanted (6.1%) and 263 patients died (61.4%). Among several related factors, a multivariate analysis showed that the presence of hepatic encephalopathy (HE), presence of esophageal varices (EV), AST>42 U/l, Cr>0.99 mg/dl, and Na>134 mEq/L were independently associated with survival. Based on these parameters a new score was created (24.427 (if HE exists)+4.855 (if EV exist)+25.085(if AST>42)+14.755(if Cr>0,99)+6.873(if Na<134). This score was found to be superior to the Child-Pugh, MELD and MELD-Na scores for the prediction life expectancy.

***Conclusion:*** The new score, based on the presence of HE and EV, >ALT>42 U/l, Cr>0.99 mg/dl, Na<134 mEq/l, seemed to be superior to C-P, MELD, and MELD-Na score for the prediction of long-term mortality. It needs to be validated with a different cohort.

***Keywords:*** Decompensated liver cirrhosis, survival prediction

---

***PP-761***

## *Two cases about granulomatous gastritis*

**Ufuk Avcıoğlu, Muhammed Okuyucu**

*Ondokuz Mayıs University, Samsun, Turkey*

***Introduction:*** Granulomatous gastritis is a kind of inflammation characterized by granulomas which are composed of plasma cells, histiocytes and lymphocytes in gastric mucosa. It can be seen approximately 0.35%in gastric biopsies. Etiological factors are multivariate. It can be classified mainly into three groups: noninfectious, infectious and idiopathic. Crohn's disease is the most common cause in developed countries while infectious causes are in the foreground in developing countries. In this report, we present two cases of granulomatous gastritis with rare etiology.

***Case 1:*** A 49-year-old female patient without any other known disease presented to the Gastroenterology Clinic with gastric pain and dyspepsia. Total blood count and routine biochemical tests were normal. There was erythematous pangastritis in gastroscopy. The biopsy which was taken from the antrum demonstrated non-caseating granulomas surrounded by concentric fibrosis with multinuclear giant cells. So it was evaluated as granulomatous gastritis. As she had active Helicobacter Pylori, she was given eradication treatment. After the eradication, control biopsy again revealed granulomatous gastritis. Chest radiography, abdominal ultrasonography and colonoscopy were normal. The Treponema pallidum particle agglutination (TPPA) assay was requested for syphilis as a rare cause of etiology and found to be positive. She was guided to Dermatology Clinic and started treatment for syphilis. After treatment there were no granulomas in the control gastric biopsy.

***Case 2:*** A 63-year-old female patient who had hypertension for 10 years presented to the Gastroenterology Clinic with dyspepsia and abdominal pain. There was erythematous pangastritis in her gastroscopy. Antral biopsy showed non-caseating granulomas in lamina propria. Therefore it was considered as granulomatous gastritis. The tests made for the etiology revealed high calcium levels. As there was mediastinal lymphadenopathy in her chest radiography, she was guided to Pulmonary Disorders Clinic in terms of sarcoidosis. She was diagnosed as sarcoidosis and planned for its treatment.

***Conclusion:*** In patients diagnosed as granulomatous gastritis, clinical and laboratory findings should be considered together in order to determine the etiology. As there were no other endoscopic findings except erythematous gastritis in both pa-

tients, it showed the importance of endoscopic biopsy. We reported these two cases in order to point out that granulomatous gastritis is a rare pathology and it can be a clue for the diagnosis of other diseases.

***Keywords:*** Granulomatous gastritis, sarcoidosis, syphilis

---

***PP-762***

## *A case report about the association between tocilizumab and indirect hyperbilirubinemia*

**Ufuk Avcıoğlu, Muhammed Okuyucu**

*Ondokuz Mayıs University, Samsun, Turkey*

Tocilizumab is a recombinant anti-interleukin 6 (IL-6) receptor monoclonal antibody which is used for the treatment of moderate and severe active rheumatoid arthritis and juvenile idiopathic arthritis. It inhibits the effect of cytokine and cytokine/receptor complex by attaching the membranous and soluble forms of IL-6 receptor (IL-6R). Most frequent adverse events are dyslipidemia, elevation of serum ADT and ALT, transient neutropenia, hypertension and headache. Isolated hyperbilirubinemia is a rare adverse effect of Tocilizumab. In this case report, we report a patient who has this rare side effect. A 19 year old female patient who had rheumatoid arthritis followed by Rheumatology Clinic was treated with Tocilizumab for a year. During follow-up she was guided to Gastroenterology Clinic as her bilirubin levels (Total bilirubin:2.66 mg/dl, Direct bilirubin: 0.8 mg/dl) were elevated. She had no liver disease including Gilbert Syndrome according to her history. In her physical examination there was no abnormal finding except mild icterus in her sclerae. Liver function tests, cholestasis enzymes and abdominal ultrasonography were all normal. MR Cholangiography which was applied because of isolated hyperbilirubinemia showed that the diameter of intrahepatic and extrahepatic biliary tract were normal and there was no pathology in the lumen. In her control laboratory tests, bilirubin levels returned to normal spontaneously after discontinuation of Tocilizumab treatment for 2 months. Adverse drug reaction probability scale (Naranjo Scale) was calculated as 6 and isolated hyperbilirubinemia was thought to be associated with Tocilizumab usage as there were no other etiological causes in our patient. Isolated hyperbilirubinemia which is a rare side effect of Tocilizumab may develop due to the polymorphism of UDP glucuronsyltransferase 1A1 (UGT1A1) gene 6. The genetic disorder in patients with Gilbert Syndrome includes the prometer region of UGT1A1. Gilbert Syndrome occurs only in patients whose variant promoter is homozygous. Hyperbilirubinemia usually doesn't exist in patients whose variant genes are heterozygous. However, most of the patients who have high bilirubin levels receiving Tocilizumab have been shown to carry one or two copies of UGT1A1 gene variants that occur in patients with Gilbert Syndrome. The treatment with Tocilizumab in patients with UGT1A1 gene polymorphism can maket he clinically silent Gilbert Syndrome overt. In rheumatoid arthritis patients with UGT1A1 gene polymorphism, it would be an exaggerated precaution to discontinue Tocilizumab without other liver damage parameters. But as Tocilizumab has the potential of inhibiting UGT1A1 mediated detoxification. Because of these reasons, it is important to follow up bilirubin levels in patients receiving Tocilizumab.

***Keywords:*** Tocilizumab, hyperbilirubinemia

---

***PP-763***

## *A rare case of intestinal histoplasmosis in an immunocompetent host*

**Ubaldhos Jeyaraj**

*Apollo Hospitals, Chennai, India*

Histoplasmosis is endemic in eastern India and certain parts of the USA. Symptomatic gastrointestinal histoplasmosis (GIH) is a rare entity by itself and is more commonly seen in immunocompromised hosts such as those infected with HIV. A 66-year-old male presented with complaints of low-grade fever, vague abdominal pain and decreased appetite for 2 months. The

patient had lost 7 kilograms during the same period. He also gave history of passing dark stools on and off since a year and on evaluation for the same was found to have severe anemia with a Hb of 4.6gm%. On examination the patient had a BMI of 22.32kg/m2 with normal vitals and presence of pallor. The liver was palpable 4 cm below the subcostal margin and was firm and non-tender. There was also mild splenomegaly and the rest of the examination was unremarkable. Routine investigations showed Hb- 9.4gm%, TLC- 5900, platelets- 1,86,000 and the peripheral smear showed microcytic hypochromic red blood cells. The urine examination, renal function, liver function tests including serum albumin and INR levels were normal. The ECG, echocardiogram and chest radiograph were normal, and the patient tested negative for HIV and hepatitis B. The iron studies were suggestive of iron deficiency anemia and vit B12 levels were normal. Abdominal ultrasonography showed a fatty liver with splenomegaly, Gall bladder wall thickening with calculi and small bowel wall thickening in the right iliac region. The patient underwent a gastroscopy and colonoscopy in view of the above history, both of which were unremarkable. A CECT of the abdomen was suggestive of distal duodenal wall thickening and mural thickening of the jejunal loops with a few mesenteric lymph nodes. The patient was advised a repeat gastroscopy which showed a circumferential ulceroinfiltrative lesion in the third part of the duodenum which on showed granulation tissue containing sheets of macrophages with intracytoplasmic capsulated spores. This was positive on Gomori methenamine silver (GMS) stain and confirmed as Histoplasma capsulatum. The patient was treated with liposomal amphotericin B followed by oral Itraconazole and improved symptomatically.

***Keywords:*** Histoplamosis, GI bleed, small intestine, obstruction, weight loss

***PP-764***

## *"Binale Grade": A new tool for prognostic stratification of patients with hepatocellular carcinoma treated with sorafenib*

**Pedro Costa-moreira, Filipe Vilas-boas, Patrícia Andrade, Hélder Cardoso, Pedro Pereira, Margarida Marques, Rosa Coelho, Rodrigo Liberal, Rui Gaspar, Susana Lopes, Guilherme Macedo**

*WGO Gastroenterology and Hepatology Porto Training Center, Porto, Portugal*

***Background/Aims:*** Sorafenib improves the survival of patients with unresectable hepatocellular carcinoma (HCC). The elucidation of predictive factors of response is key to designing and analyzing current and future clinical trials where sorafenib may be the comparator. We aimed to construct a mathematical model to predict clinical response to sorafenib treatment based on laboratory findings with a prognostic impact.

***Materials and Methods:*** Retrospective analysis of unresectable HCC cases submitted to systemic therapy with sorafenib. Laboratory values were documented at the start of therapy and at 3-6 months of follow-up. The variation in laboratory values (Δ, "delta") with prognostic impact was identified using the Cox proportional hazards model.

***Results:*** We evaluated the clinical data of 61 patients with unresectable HCC. The majority were males (82%), with a mean age of 64.1±13.6 years. Median survival after HCC diagnosis and after the initiation of sorafenib therapy was 18 months (IQR 11-29) and 9 months (IQR 3-15), respectively. The mortality rate after starting sorafenib therapy was 21.3% (6 months) and 62.3% (1 year). In a multivariate analysis model, we verified that "ΔLeukocytes" (HR 1.35, p <0.01), "ΔSodium" (HR 0.89, p <0.01) and "ΔBilirubin" (HR 1.15, p <0.01) were associated with a worst overall survival. We obtained the formula 0.14*ΔBilirubin-0.13*ΔSodium+0.29*ΔLeukocytes (BIlirubin-NA(sodium)-LEukocytes Grade) based on the correlation coefficients of survival regression. This formula showed a good performance to predict one-year mortality (OR 0.05, p<0.01; AUC 0.92, p <0.01). A positive value of BINALE grade (> 0 points) assumes a sensitivity of 84.2%, a specificity of 90.5%and a positive predictive value of 86%for 1-year mortality after starting sorafenib therapy.

***Conclusion:*** "BINALE grade" presents as a new tool for the prognostic stratification in patients receiving Sorafenib therapy. Based on the results of this new score, clinical and imaging disease reassessment may be indicated for the redefinition of the therapeutic strategy.

***Keywords:*** Sorafenib, hepatocellular carcinoma, prognosis

***PP-765***

## *Determinants of health-related quality of life in patients with gastric cancer*

**Masoudreza Sohrabi[1], Ali Gholami[3], Arman Karimibehnagh[2]**

*[1]Gastrointestinal and Liver Diseases Research Center, Iran University of Medical Sciences, Tehran, Iran*
*[2]Student Research Committee, Iran University of Medical Sciences School of Medicine, Tehran, Iran*
*[3]Noncommunicable Diseases Research Center, Neyshabur University Of Medical Sciences, Neyshabur, Iran*

***Background/Aims:*** Gastric cancer as other chronic diseases influence on Quality of life this association can be a mutual relation. Despite Gastric cancer is known as a leading fetal disease in our region there is enough study in this purpose. The aim of this study is to determine the different aspects of quality of life and its associated factors among patients with gastric cancer.

***Materials and Methods:*** In a cross sectional study between 2015-2019, two hundred thirty-eight patients (163 males, 75 females) suffering from gastric cancer referred to our center were included in this study. Patients were diagnosed based on pathology specimen provided by upper gastrointestinal endoscopy. The HRQoL was measured using the 12-Item Short-Form Health Survey (SF-12) questionnaire (with 8 subscales and 2summarycomponents). A multivariable linear regressionmodel was used to assess the HRQ status.

***Results:*** The mean age of the study population was 62.3±12.3 years. The mean score of HRQoL among the patients affected by gastric cancer was 54.5±20.4.The multivariable linear regression model demonstrated that the following variables had negative effect on HRQoL score; presence of depression (B=-15.1, p=0.001), poor sleep quality (B=-15.2, p=0.001) and O blood group (B=-10.9, p=0.001).However, it was established that education (≥12 years) is associated with higher HRQoL in this patients (B=9.1, p=0.019).

***Conclusion:*** Concviderabel that quality of sleep, blood group O, depression, and years of education in patients with gastric cancer; these results could be considered as a part of health policy to improve general health and quality of life in these particular population.

***Keywords:*** Gastric cancer, QOL, sleep, blood group

---

***PP-766***

## *Adherence to tenofovir among patients with chronic hepatitis b infection attending a tertiary hospital in Nigeria*

**Kolawole Oluseyi Akande[1], Adedayo Faneye[2], Babatunde Olusola[2], Jesse Abiodun Otegbayo[1]**

*[1] Department of Medicine, College of Medicine, University of Ibadan, Ibadan, Oyo, Nigeria*
*[2] Department of Virology, College of Medicine, University of Ibadan, Ibadan, Oyo, Nigeria*

***Background/Aims:*** Nigeria is endemic for HBV infection and it is the most common aetiology of chronic liver disease. Most patients on treatment for CHB infection in Nigeria are on tenofovir disoproxil fumarate (TDF) because of its wide availability, affordability, tolerability and potency. It is known that adherence to chronic medications is a challenge generally but non-adherence to TDF can lead to treatment failure, HBV flare and increase morbidity and mortality. There is a need to evaluate adherence to TDF in Nigeria. This study determined the pattern of adherence of patients with CHB infection to TDF and reasons for non-adherence.

***Materials and Methods:*** Consecutive patients who agreed to participate were recruited. An interviewer administered questionnaire was used to collect information on patients' biodata, duration, brand, adherence and reasons for non-adherence to tenofovir. Patients' case files were checked to corroborate the duration. The data were summarized using descriptive statistics.

***Results:*** There were 62 participants comprising of 29 (46.6%) male and 33 (52.2%) females. Their age ranged from 18 to 69 with a mean of 37±10.9 years. Treatment naïve participants were 58 (93.5%) while 4 (6.5%) were treatment experienced. The duration on tenofovir ranged from 1 to 60 with a mean of 20±15 and median of 14 months. Those that have never missed TDF were 22 (35.5%) participants while 39 (62.9%) reported missing TDF at one time or the other. One (1.6%) participant was not sure. Among those that reported missing TDF, 7 (17.5%), 15 (37.5%), 4 (10%), and 13 (32.5%) participants missed it for less than 1 week, between 1 and 4 weeks, between 1 and 3 months and more than 3 months respectively. One participant was not sure of the duration. The pattern of non- adherence was continuous in 21 (53.9%), intermittent in 7 (17.9%) and both in 11 (28.2%) participants. Reasons for non- adherence included lack of fund to buy TDF in 8 (20%), away from home in 7 (17.5%), Pregnancy in 6 (15%), undetectable HBV DNA count in 6 (15%), side effects in 5 ( 12.5%), non-availability of TDF 6 (15%), Forgetfulness 4 (10%), others reasons 12(30%).

***Conclusion:*** Adherence to TDF is poor among patients with chronic hepatitis B infection in Ibadan, lack of funds was the leading cause of non-adherence, among others. There is an urgent need to evolve mechanisms to improve the adherence.

***Keywords:*** Tenofovir, adherence, chronic hepatitis B

***PP-767***

## *Inflammatory cytokines and antioxidant-based study on hepatic fibrosis regression after chelation therapy in patients with chronic lead poisoning*

**Tongluk Teerasarntipan, Piyapan Prueksapanich, Roongruedee Chaiteerakij**

*Division of Gastroenterology, Faculty of Medicine, Chulalongkorn University and King Chulalongkorn Memorial Hospital, Thai Red Cross Society, Bangkok, Thailand*

***Background/Aims:*** Liver is the major organ of lead accumulation after chronic exposure. In vivo studies showed that lead toxicities are related to alterations of inflammatory response and lipid metabolism. We aimed to evaluate the change in degree of liver fibrosis and steatosis, levels of inflammatory mediators and glutathione between the pre- and post-chelation therapy.

***Materials and Methods:*** Non-obese battery workers who had exposed to lead ≥ 12 months and blood lead level (BLL) ≥ 60 µg/dL were included. Baseline serum glutathione (GSH) and inflammatory mediators, including tumor necrotic factor-α (TNF-α), interleukin-1β (IL-1β), and interleukin-6 (IL-6), were collected. Degree of liver fibrosis and amount of steatosis, which were represented by liver stiffness (LS) and controlled attenuation parameters (CAP), respectively, were measured by FibroScan®. A chelation protocol of intravenous $CaNa_2EDTA$ 2 gram followed by oral D-penicillamine 1 gram/day for 90 days was prescribed. Study parameters were evaluated at end of treatment. Primary outcome was the change in liver stiffness and steatosis after lead chelation. Secondary outcome were magnitude of correlation between the BLL, liver steatosis, liver fibrosis, GSH and inflammatory markers.

***Results:*** There were 86 participants enrolled in our study. Average BLL was 81.4±9.8 µg/dL and decreased to 56.6±16.8 µg/dL after chelation. Positive correlation between duration of lead exposure and LS was observed (r=0.249, p=0.021). Mean LS level was significantly decreased after treatment (5.4±0.9 VS 4.8±1.4 kPa, p=0.001). The mean level of inflammatory cytokines was also significantly reduced after treatment: 371.6±211.3 VS 215.8±142.7, p<0.001, for TNF-α; 29.8±1.7 VS 25.9±4.3, p<0.001, for IL-1β; 46.8±10.2 VS 35.0±11.9, p<0.001, for IL-6. The mean level of GSH significantly increased after chelation (3.3±3.3 VS 13.1±3.7, p<0.001). We did not find significant improvement of post-chelation liver steatosis (mean CAP was 225.1±49.3 VS 207.0±45.0 dB/m, p=0.738).

***Conclusion:*** Duration of lead exposure was significantly associated with degree of fibrosis. Treatment by lead chelation could reduce liver fibrosis. Depletion of antioxidants and systemic inflammatory response played role in lead toxicity as demonstrated by the rise of glutathione and decline in TNF-α, IL-1β and IL-6 after BLL lowering by chelation.

***Keywords:*** Liver fibrosis, liver steatosis, lead poisoning

***PP-768***

## *Evaluation of cecum and terminal ileum intubation rates and timing and withdrawal time in Al Wakra Hospital, Qatar*

**Nabeel Mohamed Shaath**

*Hamad Medical Corporation, Doha, Qatar*

***Background/Aims:*** This study was conducted with the aim of internally evaluating the current practice of endoscopists in Al Wakra Hospital.

***Materials and Methods:*** Study period was from 01 November 2018 to 13 Dec. 2018. The cases were referred from AWH outpatient clinics, the hospital's inpatient wards, Primary Health Centers (PHC) and other private hospitals in Qatar. The team of GI endoscopists consists of one senior GI consultant, two GI consultants and two associate GI consultants. A patient and procedure registry was dedicated to documenting the demographics needed including patient details, date and time of the colonoscopy, endoscopist performing the procedure, procedure start time, time cecum reached, time terminal ileum cannulated, and the time it took to withdraw the scope from the terminal ileum/cecum until the scope was pulled out from the patient's anus. A total of 150 cases were included in the study. Descriptive statistics was used to measure and analyze the data gathered.

***Results:*** During the study period, AWH endoscopists performed a mean cannulation of the cecum of 99.2%, done within 8.3 minutes (mean). The rate of cannulation is way above the data of an Oregon study (95%overall CIR) and that of The European Commission Guidelines for CRC Screening, which recommends a minimum CIR of only 90%. The AWH data is comparable to but still higher than the adjusted rates for "stricture" and "poor cleansing" as mechanical reasons for intubation failure in the study of Hoff et al. (2017), which were 97.1%in routine colonoscopy, 98.6%in work-up colonoscopy and 97.1%in primary colonoscopy screening, respectively. AWH endoscopists' mean cannulation time of 8.3 minutes is lower compared to the 9-minute mean timing recorded by a prospective study done in the US among 693 colonoscopies. With regard to the intubation of the ileum, the endoscopists in AWH were able to do the maneuver 93.6%of the time, a fairly high rate compared with what is mentioned in Jeong et al.'s study in 2008 (87.1%), Ahammed et al. in 2014 (66.8%) and Ghuman and Khan in 2014 (90.3%). Another important gauge of quality in colonoscopy as provided in several guidelines is a recommended mean withdrawal time of at least 6 minutes. Endoscopists in AWH have a mean scope withdrawal time of 8.7 minutes, a result that compares considerably better than the 6-minute minimum requirement, which can translate to improved polyp detection, as suggested by studies of Overholt et al. (2010) and Kawamura et al. (2015).

***Conclusion:*** Study reflect an impressive performance by its endoscopists against international standards in terms of cecal/ileal intubation rate and time and with regard to scope withdrawal time.

***Keywords:*** Colonoscopy, Al Wakra

---

***PP-769***

## *Clinical profile and mortality in patients with ACLF according to CLIF-SOFA criteria – A single centre study*

**Mary George, Sajtith Sbastian**

*Medical Trust Hospital, Kottayam, Kerala, India*

***Background/Aims:*** Acute on chronic liver failure (ACLF) is associated with the rapid worsening of liver failure with high mortality. Prediction of survival and early intervention can improve the outcome. This is a single centre study to assess the clinical profile and short term mortality in patients with ACLF, according to CLIF-SOFA criteria in patients with ACLF in a leading tertiary care centre in South A.

***Materials and Methods:*** Single centre prospective descriptive study. After Screening of 198 patients, 150 patients who met the inclusion criteria were included. 41 patients were including in CLIF-SOFA group. Study duration was for one year. All were followed up for 3 months period.

***Results:*** Out of this 150 patients, ACLF was present according to CLIF-SOFA in 41 (27.3%) patients. In CLIF-SOFA, NO ACLF group the 28 day mortality was 11%, and in the ACLF group mortality was 36.5%. (p value=0.001). 28 day survival in CLIF SOFA group was significantly lower in the ACLF group (log-rank test: chi square value 13.67; p value<0.001). In CLIF-SOFA, NO ACLF group 90-day mortality was 11.9%, while in ACLF group it was 41.4%. (p value=0.001). Survival in CLIF-SOFA NO-ACLF group is significantly better than ACLF group. (log-rank test, chi-square-16.971: p<0.001. AUROC for 28-d mortality for CLIF-SOFA, APACHE-II, Child-Pugh and MELD scores was 0.757, 0.734, 0.732 and 0.734 respectively. Backward conditional logistic regression was done to compare the utility of these scores. Only APACHE II score was found to be predictor of mortality with an odds ratio of 1.15. (p value < 0.01).

***Conclusion:*** The 28-day mortality in CLIF-SOFA group with ACLF was 36.5%, while in NO ACLF group it was 11%. Mortality was higher in patients with ACLF according to CLIF-SOFA criteria. When we compared the prognostic scores Child-Pugh score, MELD score, APACHE II, CLIF-SOFA score AUROC was higher for CLIF-SOFA score and APACHE II score. (The AUROC was.757,.734,.734,.732 for CLIF-SOFA, APACHE II, MELD, Child-Pugh score respectively). On backward conditional logistic regression analysis for the utility of these scores for 28 day mortality only APACHE II was found to be significant with an Odds ratio of 1.15.

***Keywords:*** Acute on chronic liver failure, cirrhosis, mortality

---

***PP-770***

## *Biliary stent migration and its endoscopic retrieval: A single center Philippine experience*

**Enrik John Aguila, Gerardo Mendoza**

*St. Lukes Medical Center, Global City, Philippines*

***Background/Aims:*** Endoscopic biliary stents are important as both palliative and curative treatment of several benign and malignant diseases. Biliary stent migration is a complication estimated to occur in 6%of cases and it presents a technical challenge to the therapeutic endoscopist. However, there is limited experience from full studies on the methods for biliary stent retrieval, hence this report is a vital addition to clinical practice. This study aims to describe the incidence of migrated biliary stents and determine available endoscopic treatment options and retrieval methods.

***Materials and Methods:*** A 5-year retrospective study was done from 2014 to 2018 to all patients who were admitted at St. Luke's Medical Center Global City, Philippines documented to have biliary stent migration. These patients underwent ERCP in attempt of endoscopic retrieval of the migrated biliary stents.

***Results:*** A total of seven cases of biliary stent migration were identified for which four cases had the biliary stent inserted due to choledocholithiasis while three had it due to malignant biliary obstruction. The time interval from insertion of the stent to occurrence of migration were from 5 days to 3 years. Four cases migrated proximally while the other three cases distally. All cases had plastic stents. In terms of biliary stent retrieval, majority (57%) had a successful endoscopic retrieval with the use of either a spiral basket, Rat-toothed forceps, or a balloon stone extractor. Other endoscopic tools used but were unsuccessful include a Soehendra stent retriever and snare forceps. Of the patients with distal migration, two cases (28.6%) had spontaneous passage of the biliary stent into the intestine without any untoward complications while one resulted to duodenal perforation. The patient who had perforation was a case of a plastic biliary stent inserted for malignant biliary obstruction for which the stent migrated distally causing a 3mm duodenal perforation. The stent was retrieved via rat-tooth forceps and the perforated defect was closed with resolution clips. One patient (14.3%) had an unsuccessful endoscopic retrieval despite attempts with different retrievers, hence was referred to a surgeon.

***Conclusion:*** Our experience describes that using various techniques, most proximally migrated biliary stents can be retrieved endoscopically. Distally migrated biliary stents on the other hand need attention because they can cause severe complications although endoscopic techniques are also effective in managing such sequelae.

***Keywords:*** ERCP, biliary stent, migrated stent

---

***PP-771***

## *Pioneering experience and clinical outcomes of endoscopic submucosal dissection in a tertiary center in the Philippines*

**Enrik John Aguila, Jonard Co, Patricia Anne Prodigalidad**

*St. Lukes Medical Center, Global City, Philippines*

***Background/Aims:*** Endoscopic submucosal dissection (ESD) is a nonsurgical approach for the treatment of early gastrointestinal malignancy. It is a specialized endoscopic resection technique that is able to remove a gastrointestinal lesion through dissection of the submucosa using a modified needle knife. While ESD has already been in practice at Japan since the early 2000s, it is a relatively new field in the Philippines and only a handful of therapeutic endoscopists do ESD in the country. This study aims to describe the pioneering practice of ESD and its clinical outcomes in a tertiary referral center in a developing country.

***Materials and Methods:*** A 5-year retrospective study was done from 2015 to 2019 to all patients who were underwent endoscopic submucosal dissection at the St. Luke's Medical Center Global City, Philippines. Demographic profile of patients, endoscopic results and clinical outcomes were reviewed.

***Results:*** A total of 38 patients underwent ESD within the 5-year duration for which 29 (76.3%) were done in the colon while 9 (23.7%) in the stomach with the most common site of lesions in the rectum (15; 39.5%). The average age was 62 years old (31-84). The mean duration time was 125 minutes (37-315 minutes). Most common histologic type was tubulovillous adenoma (26.31%), followed by adenocarcinoma (15.8%), tubular adenoma (13.16%), and neuroendocrine tumor (13.16%). One patient (2.6%) had a deep muscle injury but was managed with application of hemoclips with no further complications. There was no mortality. Nineteen patients (50%) had a follow up endoscopy post-ESD at an average of 14 months post-ESD, with the earliest at 3 months. Recurrence at 6 months post-ESD was 0%and the longest follow-up is at 22 months with no recurrence.

***Conclusion:*** Given the advancements with image enhanced endoscopy, more lesions are diagnosed earlier and managed accordingly for which ESD has now become a valuable part of the endoscopic armamentarium. It is a safe and effective technique for the treatment of early gastrointestinal malignancy reducing the risk for surgery. Despite the practice of ESD in the country being in its early stages and it being a technically difficult procedure, this report has already shown promising clinical outcomes.

***Keywords:*** ESD, advanced endoscopy, GI malignancy

---

***PP-772***

## *Prophylactic antibiotics in the prevention of infection in patients undergoing endoscopic resection of colorectal lesions: A meta-analysis*

**Enrik John Aguila, Sherida Edding, Jonard Co, Juliet Gopez-Cervantes**

*St. Lukes Medical Center, Global City, Philippines*

***Background/Aims:*** Larger colorectal lesions tend to have a higher risk of infection after endoscopic mucosal resection (EMR) or endoscopic submucosal dissection (ESD) procedures, possibly because of larger wound areas. There have been conflicting results of

studies on prophylactic antibiotics in the prevention of infection in this population. No guideline suggests the routine use of antibiotics but some studies have shown risk of bacteremia post-endoscopic resection, hence recommending prophylaxis. This meta-analysis aims to consolidate existing studies and arrive on evidence-based recommendations on the use of prophylactic antibiotics.

***Materials and Methods:*** A comprehensive literature search from the PubMed Central, Embase, Cochrane Library, and Ovid was performed with the following search terms: prophylaxis, antibiotics, EMR, and ESD. Four studies were selected and validated using the Jadad scale. Trial results were combined under a fixed-effects model. The Cochrane Review Manager Software version 5.0 was used for all analyses. The primary outcome of study was prevention of post-procedural infection.

***Results:*** Four trials comprising of 850 patients met the inclusion criteria. Three studies were prospective randomized controlled trials while one was a retrospective case-control. Two studies had subjects who were given antibiotics post-procedure while the other two studies with both pre- and post-procedure antibiotics. In the fixed effect model, it showed statistically significant decrease in the infection rates ($p<0.00001$) among patients who were given antibiotic prophylaxis compared to those without. The four trials showed moderate heterogeneity ($I2=36\%$) since the study by Muro (2015) was of retrospective type. Reconstructing the forest plot analyzing only the prospective studies, it is of note that the results are the same but there is no longer heterogeneity ($I2=0\%$).

***Conclusion:*** Prophylactic antibiotics given pre- and post-endoscopic resection of colorectal lesions have shown favorable outcomes in the prevention of infection. Nevertheless, further studies on the optimal antibiotic drug class, dosage and duration is recommended.

***Keywords:*** Prophylaxis, antibiotics, EMR, ESD, colon cancer

---

***PP-773***

## *Adenoma detection rate-quality indicator for colonoscopy; descriptive cross-sectional study from a tertiary care hospital in Pakistan*

**Om Parkash, Mian Shah Yousaf, Roger Christopher Gill, Shameel Shafqat, Asfia Arham Khursheed**

*Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Adenoma detection rate (ADR) is a validated quality measure for screening colonoscopy but there is lack of proper Colorectal Cancer (CRC) screening program in South Asia. The purpose of this study is to review ADR of a tertiary care hospital, compare it with existing international standards, see the difference among different gastroenterologists and to provide insight into the factors that influence ADR in this part of the world, where there is no screening program for CRC and no such study has been reported before this.

***Materials and Methods:*** In this cross-sectional study, all patients with age 18 years or above who had undergone colonoscopy at Aga Khan University Hospital Karachi, Pakistan from 1$^{st}$ January 2017 to 30$^{th}$ June 2018 were included. Data were collected on a pre-designed proforma and analyzed using SPSS version 20.

***Results:*** Among total 1985 patients, 1172 (59%) were male, with a mean age of 47.8±16.1 years. Overall Polyp Detection Rate (PDR) was 17.9% (355/1985) and ADR was 9.9% (197/1985). There was significant difference in PDR and ADR in patients above 50 years of age (PDR: 24.8% vs 11.7%; ADR: 15% vs 5.4%: $p=0.000$), surprisingly other significant difference was in operator having <10 years of experience who detected more polyps and adenoma (PDR: 20.6% vs 15.8%, $p=0.005$; ADR: 11.7%versus 8.6%, $p=0.02$). However, we did not find any significant difference in gender.

***Conclusion:*** We have noticed significantly lower PDR and ADR in our population which needs further investigations in areas where there is no screening program.

***Keywords:*** Adenoma detection rate, polyp detection rate, colonoscopy

***Table 1.*** Baseline characteristics of patients (n=1985)

| | |
|---|---|
| Age (years), median; range | 47.8 (19-88) |
| Age groups | |
| 50 years | 1051 (52.9%) |
| 50 years | 934 (47.1%) |
| Sex, n% | |
| Male | 1172 (59%) |
| Female | 813 (41%) |
| Indication of colonoscopy (n%) | |
| Bleeding per Rectum | 556 (28%) |
| Loose stools | 264 (13.3%) |
| Screening | 154 (7.8%) |
| Constipation | 153 (7.7%) |
| Anemia | 152 (7.7%) |
| Altered Bowels (Mixed Pattern) | 139 (7.0%) |
| Surveillance | 136 (6.9%) |
| Abdominal Pain | 135 (6.8%) |
| Others | 296 (14.9%) |
| Bowel Preparation | |
| Good | 1873 (94.4%) |
| Suboptimal | 70 (3.5%) |
| Poor | 42 (2.1%) |

***Table 2.*** Results of PDR, ADR and their distribution (n=1985)

| Variable | PDR (n,%) | ADR (n,%) | Significance (p) |
|---|---|---|---|
| Overall | 355 (17.9%) | 197 (9.9%) | |
| Age groups | | | |
| 50 years | 123/1051 (11.7%) | 57/1051 (5.4%) | PDR=0.000 |
| 50 years | 232/934 (24.8%) | 140/934 (15%) | ADR=0.000 |
| Sex | | | |
| Male | 217/1172 (18.5%) | 120/1172 (10.2%) | PDR=0.405 |
| Female | 138/813 (17%) | 77/813 (9.5%) | ADR=0.594 |
| Operator Experience | | | |
| 10 years | 178/863 (20.6%) | 101/863 (11.7%) | PDR=0.005 |
| 10 years | 177/1122 (15.8%) | 96/1122 (8.6%) | ADR=0.02 |

***PP-774***

## *When mismatch occurs: A case report of an atypical radiologic, endoscopic and histologic presentation of acute appendicitis*

**Enrik John Aguila, Joseph Bocobo**

*St. Lukes Medical Center, Global City, Philippines*

Acute appendicitis is common, and it presents typically with a migratory abdominal pain, fever, vomiting and anorexia. This case report however, shows how acute appendicitis can present atypically in terms of radiologic, endoscopic and histopathologic findings. There are no literature describing such atypical findings on work-up of acute appendicitis, hence this report is a vital addition to clinical practice. This is a case of a 42-year-old female who had a 2-day history of intermittent epigastric pain. She further noted decrease in appetite, an episode of vomiting and migration of pain to the left hemiabdomen prompting consult. CBC showed leukocytosis at 20,290 with a neutrophilic predominance of 87%. With high suspicion of acute appendicitis and an Alvarado score of 7, a whole abdomen CT scan with contrast was done which revealed marked submucosal edema at the ascending colon, cecum and terminal ileum with surrounding inflammatorychanges which may relate to an infectious process such as tuberculosis or amoebiasis. Given the CT scan findings, a colonoscopy was then done which showed typhlitis with an exudate adherent to the cecal wall. Patient was referred to surgery with a preoperative diagnosis of acute appendicitis who noted cecal mass during an exploratory laparotomy, hence patient underwent right hemicolectomy. Histopathology eventually revealed acute necrotizing appendicitis on the base with extension of the suppurative inflammation to the ileocecal valve and cecal area, active colitis in the cecum, and subserosal microabscesses.

This case report illustrates that acute appendicitis can present with a typical clinical course but with atypical diagnostic results as described in the radiologic, endoscopic, and histopathologic findings. At occasions, work-ups do not match and

support each other. Nevertheless, it is the consideration of the patient's clinical picture and all diagnostic results as a whole that would lead to a prompt and proper course of treatment.

***Keywords:*** Appendicitis, atypical, endoscopy, radiology, pathology

***PP-775***

## *Gastric psuedotumor tumor mimicking gastrointestinal stromal tumor: A case report and review of literature*

**Irfan Shera[1], Shilpa Gupta[2], Rubal Gupta[1], Uma Rani[2]**

*[1]QRG Health City, Sector 16, Faridabad, Haryana, India*
*[2]Asian Institute of Medical Science, Sector 21 A, Faridabad, Haryana, India*

***Introduction:*** Pseudotumor is rare clinical and histopathological disorder, little is known about its pathophysiology and diagnostic algorthim. On contrary, gastro intestinal stromal tumor (GIST) is the most common mesenchymal tumor of the gastrointestinal tract. Most of them are treated surgically with or without use of adjuvant immunotargeted therapy. In this report, we present a case of gastric pseudotumor which was misdiagnosed as gastric GIST and post-surgery diagnosis was established with help of histopathology followed by immunohistochemical assay. This case highlights an important diagnostic pitfall and close clinical differential, should we have done differently?

***Case:*** A 35 year old male past history of treated pulmonary Koch presented to physician clinic with 2-month history of vague abdominal pain, anorexia, early satiety and bloating. Blood work up showed elevated ESR. Patient received trial of antisecretory drugs and prokinetics with suboptimal relief. Computed tomography of abdominal revealed that non enhanced gastric wall thickening. Upper gastrointestinal endoscopy showed subepithelial tumor arising from cardia (Figure 1). Endoscopic ultrasound (EUS) was done showed inhomogenous heteroechoic exophytic subserosal lesion partially encapsulated with cresentic halo and abuting the left lobe of liver (Figure 2). Fine needle aspiration of lesion showed mesenchymal spindle cells with slight background of inflammatory cells. possibility of GIST was made on endoscopic and EUS morphology. Laproscopic wedge gastric resection was performed and specimen was send for histopathology analysis, followed by immunohistochemistry that disproved GIST. Microscopy showed features of proliferating blood vessels and inflammatory component while DOG1, c kit, caldasmon, were negative (Figure 3). The final diagnosis was fibrous gastric psuedotumor consistent with reactive myofibroblastic proliferative picture.

***Conclusion:*** Pseudotumors most commonly seen in young patients with unknown etiology, bears close resemblance to malignant tumors in radiological,surgical and histologic features. Psuedotumor has been described with different nomenclature in medical literature like plasma cell granuloma, inflammatory myofibroblastic tumor, inflammatory myofibroblastic proliferation, histiocytoma, xanthoma, fibroxanthoma, fibrous xanthoma, xanthogranuloma, solitary mast cell granulomas, and inflammatory fibrosarcoma and many more. Inflammatory psuedotumor (IPT) commonly found in orbital region and lung. Gastrointestinal tract psuedotumor are uncommon; stomach is common site if involved and occur in young girls followed by the small intestine and the large intestine. In rare instance may involve the esophagus. Clinical presentation vary with site of gastrointestinal involvement. Patients often present with abdominal pain but may also have intestinal obstruction, dysphagia and iron deficiency anemia. The imaging features include mass effect, wall infiltration, and extraluminal extension that simulates with malignant disease. Therefore, to avoid errors in management, one should consider following clinical nuggets preoperatively before arriving this diagnosis. 1; If there is a gastric mass associated with an ulcer or contained perforation, IPT should be kept in the differential diagnosis, 2: If a gastric mass arises in conjunction with other unusual signs of inflammation, such as sclerosing cholangitis and retroperitoneal fibrosis, one should also suspect IPT possibility,3: A gastric mass in a child with castleman syndrome most likely represents IPT. Treatment of choice is the surgical resection. Medicine like steroids, nonsteroidal antiinflammatory drugs, and thalidomide have shown clinical response in these tumors. If surgical excision is incomplete or patients is not surgical candidate, radiotherapy have proven effective as adjunctive therapy. There is 18%to 40%recurrence rate of gastrointestinal pseudotumors and treatment is resection, rarely fatal and malignant transforma-

tion has been reported. Histologically, an IPT contains myofibroblastic spindle cells associated with both acute and chronic inflammation, including lymphocytes and plasma cells and collagen (a fibrous reaction). Exact cause of IPT is unknown. It has been postulated this entity is associated with low grade of continuous inflammation as seen in trauma and surgical inflammation, immune-autoimmune condition, and low-grade fibrosarcoma with inflammatory cells. Some pseudotumors are thought to be secondary to infection. Various organisms have been implicated in pathologic specimens, including mycoplasma and nocardia in lung pseudotumors, actinomycetes in liver pseudotumors, Epstein-Barr virus in splenic and nodal pseudotumors, and mycobacteria in spindle cell tumors. The aim of this review is to highlight the importance of this clinical presentation, differential diagnosis, imaging features, and management of inflammatory pseudotumor. Though a rare benign process masquerading a malignant condition, doctors should be familiar with this entity as diagnostipossibility forehand to avoid inappropriately aggressive therapy.

***Keywords:*** Psuedotumor, gastrointestinal stromal tumor, mesenchymal gastric tumor

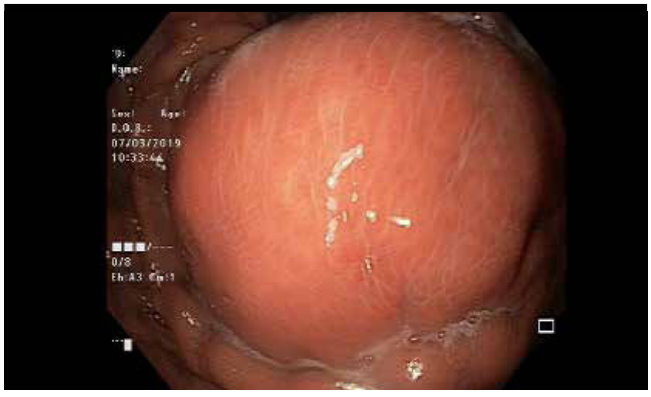


**Figure 1.** Endoscopy showing subepithelial mass arising from cardia of stomach.

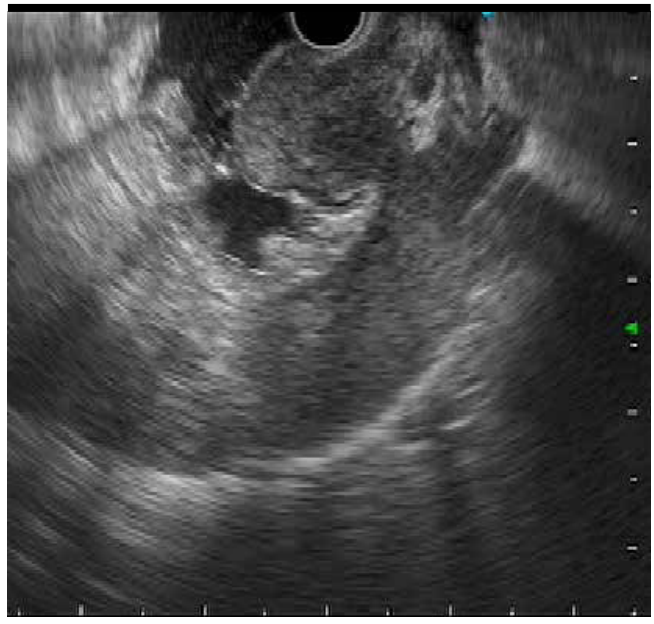


**Figure 2.** Linear EUS showing inhomogeneous heteroechoic exophytic submucosal gastric lesion with semilunar cresentic halo.

***PP-776***

## *Comparison of newly devised score with BE3A score to look for response to direct acting anti-viral (DAA) therapy in decompensated cirrhotics due to HCV*

**Prasanta Debnath, Sanjay Chandnani, Pravin Rathi, Sujit Nair**

*T.N.M.C & B.Y.L. Nair Charitable Hospital, Mumbai, India*

***Background/Aims:*** Decompensated HCV cirrhosis remains a difficult-to-treat cohort as response to DAA therapy is sub-optimal. There is no gold standard predictors of response to DAA therapy at present. We conducted this study to look for factors responsible for improvement in state of decompensation post DAA therapy, i.e. attainment of CTP class A from B or C and comparing our composite score with BE3A score in predicting response post therapy.

***Materials and Methods:*** Retrospective analysis was conducted for patients of decompensated HCV cirrhosis (48 patients of CTP class B and 14 patients of CTP class C). We collected demographic, clinical, and laboratory data- age, BMI, LFT, INR, GFR, MELD score, response to therapy (SVR12); presence of ascites, encephalopathy were noted at start and end of treatment. Association of each parameter with patient outcomes at 24 weeks post-treatment was assessed. BE3A Score was calculated for each patient. Patients were given Sofosbuvir combination treatment with Daclatasvir/Ledipasvir/Velpatasvir and/or Ribavirin according to genotype, for 12 weeks, where Ribavirin was used and rest 24 weeks.

***Results:*** Total 62 patients of decompensated HCV cirrhosis patients recruited, with males 54%, Median age 48 years. 48 patients were CPT class B whereas 14 patients of CPT class C. Patients with MELD score < 10, 10-15 and > 15 were 21 (33.8%), 28 (45.1%) and 13 (21.1%). Post-treatment 34 patients (54.8%) turned into CTP class A, 25 (40.3%) and 3 (4.9%) in CTP class B & C. Number of patients with BE3A score 1, 2, 3 and 4 were 12, 32, 16 and 2 and responders post treatment were 3, 14, 15 and 2 respectively. On univariate analysis, albumin > 3g/dl, serum ALT>60IU/ml, eGFR>75ml/min/1.73m$^2$ and bilirubin <1.4 mg/dl and on multivariate analysis only bilirubin <1.4 mg/dl was associated with better prognosis. Metrics of logistic regression revealed AKaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) of 77.9 and 99.2 for our model and 71.4 and 75.6 for BE3A score respectively.

***Conclusion:*** This study showed that oral DAAs were able to reverse liver dysfunction in patients with decompensated HCV cirrhosis in more than half of our patient cohort and favored use of treatment in such patients. BE3A Score is better than our model for predicting response to DAA therapy in decompensated HCV cirrhosis.

***Keywords:*** HCV, decompensatd cirrhosis, sofosbuvir

---

***PP-777***

## *A single center study of the risk factors and mortality in cirrhoc portal vein thrombosis*

**Sunil K. Mathai[1], Jenny Susan[2], Mary George[1], Sajith Sebastian[1], Benoy Sebastian[1]**

*[1]Medical Trust Hospital, Kochi, Kerala, India*
*[2]AJ Institute, Manglore, India*

***Background/Aims:*** To Study was done to determine the various risk factors and prognosc factors of newly detected portal vein Thrombosis (PVT) in Cirrhocs. In hospital complicaons and short-term mortality were also followed up.

***Materials and Methods:*** Hospitalized cirrhoc paents were segregated into the PVT and non-PVT groups. Various clinical and laboratory parameters are included in the study. Indices possibly associated with PVT were measured. PVT was detected by both Doppler US and CECT abdomen. The SPSS soware was used for all stascal analyses. All quantave data were expressed as mean±standard deviaon. Mulvariate binary logisc regression was performed and the model was esmated using the step wise backward method (Wald).

***Results:*** 700 cirrhoc paents screened over 2 years period, 178 paents who full fill the inclusion criteria were included in our study. 56 (8%) had portal vein thrombosis. Majority of PVT were found in males aged 55±12 years.Most common presentaon were gastrointesnal bleeding, abdominal distenon, fever, jaundice, and hepac encephalopathy. Most common site of portal vein thrombosis was PV trunk.NASH followed by alcohol related cirrhosis was the major eology for cirrhosis in PVT.

***Conclusion:*** Previously hypothesized risk factors for PVT, such as advanced age, male gender, smoking status, alcohol consumpon, systemic hypertension, and D.M however were not associated with portal vein thrombosis in our study.Lower Blood platelet, Splenic diameter and Haemoglobulin levels were found stascally significant risk factor for portal vein thrombosis.There were no in hospital complicaons. Two paents died (3.576%) during follow up and 12 paents were readmied (21.42%) in 3 months follow up. Haemoglobulin levels, Splenic diameter, Low platelet levels were found to be risk factors for PVT, however their associaon with portal hypertension may be contributory or aributed to portal vein thrombosis, however it is difficult to differenate.

***Keywords:*** Portal vein thrombosis, cirrhosis, risk factors

***PP-778***

# *Survival outcome of patients with hepatocellular carcinoma and portal vein tumor thrombosis receiving different modalities of treatment*

**Ajeet Kumar Lohana[1], Rajesh Kumar[1], Farhana Kayani[1], Hajira Bukhari[2], Shahwar Kazmi[2], Wasim Jafri[1]**

*[1]Section of Gastroenterology, Department of Medicine, Aga Khan University Hospital, Karachi, Pakistan*
*[2]Department of Medicine, Aga Khan University Hospital, Karachi, Pakistan*

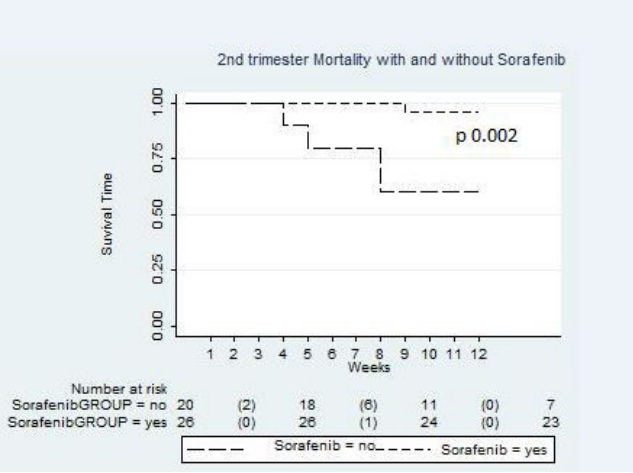
***Background/Aims:*** There is remarkable difference in approach and management of Barcelona Cancer Liver Clinic (BCLC) stage C and D hepatocelluar carcinoma (HCC) patients. Due to diversity in approach particular to this BCLC stages, the survival rates and efficacy of different modalities have been significantly variable and unpredictable.

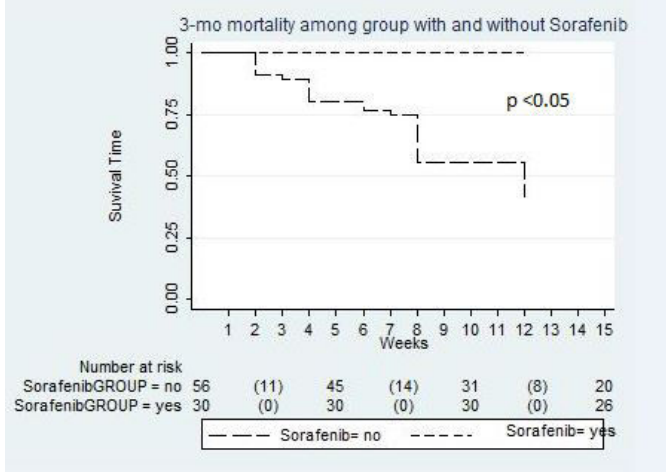
***Materials and Methods:*** Patients with underlying HCC with Portal vein tumor thrombosis (PVTT) were recruited retrospectively. Characteristics of patient with HCC with PVTT were determined. These patients were followed till death, or at least 12 weeks of follow up, in order to determine the 3 and 6 months survival rates. 3-mo, 6-mo, and overall survival (OS) time was calculated among groups with different treatments.

***Results:*** 136/1065 (12.87%) patients were diagnosed with HCC with PVTT from January 2009-December 2018. Mean age was 57±11 years, male predominant i.e. 91/136 (66.9%). Mean child score was 8.88 (5-15), MELD score was 13.93±6. 112 (82.4%) had PVTT at the time of HCC diagnosis. 45 patients lost to follow up before 12 weeks. Survival analysis was performed over 91 patient dataset. With respect to BCLC Staging, 54 (60%) were BCLC C, and 37 (40%) were BCLC D. BCLC C stage patients received Sorafenib alone (n=10), Transarterial Chemoembolization (TACE) with Sorafenib (n=15), and Best supportive treatment (BST) (n=29). The 3-mo survival among these groups were (0/10) 100%, 1/15 (93%), and 10/29 (65.5%) respectively. The median OS among these groups were 10.5, 13.41, and 3 months respectively. Of 37 patients with BCLC D, 5 received TACE with Sorafenib, and 32 received BST. The 3-mo survival was 5/5 (100%), and 7/32 (21.8%) p 0.003 respectively. Irrespective of BCLC stage; use of Soraenib (single or in combination with TACE) clearly demonstrated survival benefit in comparison to BST, as depicted in survival graphs below. Individulally; 3-month survival rates among groups with Sorafenib alone, Sorafenib with TACE, and BST were 10/10 (100%), (17/20) 85%, and (36/61) 59% p 0.001.

***Conclusion:*** Sorafenib alone and use of downstaging i.e. TACE in combination with Sorafenib has shown improvement in 3, 6, and overall survival of patients with hepatocellular carcinoma and portal vein tumor thrombosis.

***Keywords:*** Hepatocellular carcinoma, portal vein tumor thrombosis, Barcelona cancer liver clinic (BCLC) system, sorafenib, survival outcome, mortality



***PP-779***

## *Evaluation of patients with hepatocellular cancer*

**Ahmet Uyanıkoğlu, Ayşegül Erdoğdu Bakır**

*Department of Gastroenterology, Harran University School of Medicine, Şanlıurfa, Turkey*

***Background/Aims:*** Hepatocellular cancer (HCC) usually develops in the background of cirrhosis. In our country, the most common etiological cause is viral hepatitis. The aim of this study was to evaluate the patients diagnosed with HCC in the last 1 year.

***Materials and Methods:*** Patients diagnosed with HCC between February 2018 and May 2019 were retrospectively screened.

***Results:*** Twenty-four patients with HCC were included in the study. Nineteen (80%) men were male and the mean age was 64.62±9.04 years. Twenty-two (90%) patients were cirrhotic and 2 (10%) were non-cirrhotic. Fifteen (60%) patients developed hepatitis B (1 delta), 5 (20%) hepatitis C, and 4 cryptogenic cirrhosis. In 12 patients (50%), the number of lesions was greater than 4, and totaly 18 patients was not suitable for transplantation.

***Conclusion:*** Ninety percent of the HCC patients in Şanlıurfa region develop on cirrhotic grounds, eighty percent men, and sixty percent hepatitis B, at the time of diagnosis, two-thirds of the patients are in advanced stage beyond the limits of transplantation.

***Keywords:*** HCC, hepatitis B, hepatitis C

---

***PP-780***

## *Endoscopic management of foreign bodies in the upper gastrointestinal tract: Single centre experience*

**Mohammad Naymul Hasan[1], Sukanta Chandra Das[2], Birendra Nath Saha[3]**

*[1]Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh*
*[2]Narayanganj General Hospital, Narayanganj, Bangladesh*
*[3]Shaheed Tajuddin Ahmed Medical College, Gazipur, Bangladesh*

***Background/Aims:*** Foreign body ingestion is a relatively common clinical problem. We report our clinical experiences in endoscopic management of upper gastrointestinal foreign bodies by endoscopy in a tertiary hospital.

***Materials and Methods:*** This retrospective study was conducted at a Medical college Hospital, Bogura, Bangladesh, over a 2-year period. Patient characteristics, endoscopic findings, type of foreign body and its anatomical location, management and outcomes were analyzed by statistical methods.

***Results:*** We included 51 patients with foreign bodies in upper gastrointestinal tract. Most of them were found in esophagus (94%) predominately in lower esophagus (48%). Dysphagia (35%) and foreign body sensation (27%) were the most common complaints of foreign bodies impaction. Meat bolus (47%) and coins (29%) were the most common types of foreign bodies in adults and children, respectively. The most frequently used endoscopic accessory devices were retrieval forceps (38%) and Dormia basket (38%). Associated pathology was reported in 12 (25%) patients. Endoscopic foreign body removal was successful in 98%of cases, whereas surgery was required in only 1 patient.

***Conclusion:*** Our experiences with foreign bodies impaction emphasize the importance of endoscopic approach and removal were simple and safe when performed by skilled hands. So, endoscopic interventions can increase the chance of successful removal of foreign bodies and reduction of the need for surgery.

***Keywords:*** Foreign body (FB), upper gastrointestinal tract (UGIT)

***PP-781***

## *Prognostic scores and predictive mortality factors in alcoholic hepatitis: Is it time to change the paradigm?*

**Ana L. Santos, Ana Patrícia Andrade, Marco Silva, Susana Lopes, Guilherme Macedo**

*Centro Hospitalar E Universitário De São João, Porto, Portugal*

***Background/Aims:*** Actually, Maddrey discriminant function (MD) is the main score used in clinical practice to identify patients with severe disease with alcoholic hepatitis(AH). However, some studies have demonstrated the potential value of another scores to identify these patients with a higher accuracy. With this work we intend to assess the predictability of 28-day mortality of six scores and analyse potential predictive factors of mortality.

***Materials and Methods:*** Retrospective and unicentric study in patients admitted by AH with biopsy-proven the diagnosis. The predicting mortality scores were calculated at admission: alcoholic hepatitis histological score (AHHS), age-bilirubin-INR-creatinine (ABIC), glasgow alcoholic hepatitis score (GAHS), model for end-stage liver disease (MELD), MELD-sodium (MELD-Na) and Maddrey discriminant function (MD).

***Results:*** We included 49 patients (mean age 49.9 years-old, 71%males). The overall 28-day mortality was 22.4%. Thirty-two patients (65%) were treated with steroids; of these, 56% responded to therapy, according Lille Score at 7-day. At admission, the presence of encefalopaty, an higher value of absolute count of neutrophils, an higher value in MELD-score and in AHHS score as well as a GAHS or an ABIC 3 were associated to 28-day mortality (p=0.046, p=0.045, p=0.040, p<0.001, p=0.009 and p=0.005, respectively). In multivariated analysis, a higher AHHS score was independently and significantly associated at 28-day mortality (OR 2.562; 95% CI 1.469 4.468). Comparing the predicting mortality scores, the AAHS was better to predict 28-day mortality [AUROC of 0.871 (p<0.001)] – a cutoff of 6.5 had a sensibility of 82% and a specificity of 81%, followed by ABIC [AUROC of 0.808 (p=0.002)], GAHS [AUROC of 0.749 (p<0.013)] and MELD [AUROC of 0.712 (p<0.029)], respectively (Figure 1).

***Conclusion:*** These results revealed that the histological assessment in patients with AH have a higher value for initial approaching; additionally, this score, as well as ABIC, GAHS and MELD have a higher accuracy to predict prognosis (evaluated by 28-day mortality) than the most commonly used scores, like MD.

***Keywords:*** Alcoholic hepatitis, liver biopsy, histologic score, prognostic scores

---

***PP-782***

## *Prevalence of iron-deficiency anemia in celiac disease: There is relation with the severity of disease?*

**Ana L. Santos, Armando Peixoto, Pedro Costa-Moreira, Joel Silva, Emanuel Dias, Marta Silva, Guilherme Macedo**

*Centro Hospitalar E Universitário De São João, Porto, Portugal*

***Background/Aims:*** Recent studies suggest an increasing prevalence of iron-deficiency anemia (IA) in patients with celiac disease (CD) being, sometimes, the only disease's finding. However, the relationship between IA and CD severity remains unclear. This study intends to evaluate the prevalence of AF in a CD's patients' cohort, followed in a tertiary centre, determining its impact in disease's prognostic.

***Materials and Methods:*** Retrospective and unicentric study with inclusion adults' patients with CD, followed in outpatient gastroenterology care, independently of diagnosis' age.

***Results:*** A total of 161 patients were included [78% of female gender, with median diagnosis's age of 26 years (IQR 5-40)]. The prevalence of IA at diagnosis was 37%, higher in woman (90%, p=0.012) and in patients whose diagnosis have been occurred at age <2 years (p=0.029) or between 18-40 years (p=0.004). After the initiation of target therapy for CD, a normalization of anemia was seen in 87% of cases. Diarrhea occurred in 29% of cases of IA, with a statistic significant relationship between these symptoms (p=0.018); the presence of autoimmune thyroiditis and transaminases increasing was higher, in this group, too (p=0.020 e p=0.003, respectively). A positive correlation between B12 vitamin and transferrin saturation (TS) was observed (p<0.001). In 60% of cases, IA was only finding of CD, was it was associated to a higher levels of the antibody anti-tissue transglutaminase antibodies IgA (anti-IgA-TGT) at 12 months after the beginning of diet (p=0.034).

***Conclusion:*** IA is a prevalent sign in CD's diagnosis and it is associated to higher levels of anti-TGT at 12 months that could mean a need of more longer periods until the antibodies normalization. This fact, along with the obtained results of ST and B12 vitamin levels could be related with a higher disease's severity and remit to a more intensive initial surveillance.

***Keywords:*** Celiac disease, iron-deficiency anemia

---

***PP-783***

## *Esophageal manometry in gastroesophageal reflux disease: Is there superiority of the high resolution over conventional?*

**Ana L. Santos, Armando Peixoto, Joel Silva, Rosa Ramalho, Guilherme Macedo**

*Centro Hospitalar E Universitário De São João, Porto, Portugal*

***Background/Aims:*** Conventional esophageal manometry (CM) presents a controversial role in assessment of patients with gastroesophageal reflux disease (GERD). High-resolution manometry (HRM) seems to add information in the assessment of these patients, although its role remains uncertain. We intended to compare the findings of CM and HRM in patients with GERD as well as its impact in patient's approach.

***Materials and Methods:*** Historical retrospective cohort study, including patients who were referred to perform CM or HRM previous to pHmetry. Demographic characterization, with assessment of manometric findings in each group and determination of the impact of these finding in terms of therapeutic strategy.

***Results:*** A total of 95 patients were included, 46 with CM (63% female, mean age of 46.17 years) e 49 with HRM (53% female, mean age of 50.14 years). The median time between the onset of symptoms and manometry was higher in HRM [5 years (IQR 2-8) vs 4 years (IQR 2-8). Manometric changes were seen in 50% of cases of MC [39% of LES hypotonicity, 15% of ineffective esophageal motility (IEM),] and 71% in HRM (38% of esophagogastric junction obstruction, 15% of LES hypotonicity and 15% of IEM). Heartburn was the main symptom in both groups (74% in CM and 67%in HRM). A previous therapeutic trial with proton pump inhibitor occurred in 65% of cases of MC and 67% of HRM, with effective response in 14% and 43%, respectively. In both groups, the most frequent finding was esophagitis (40% and 35%, respectively). The impact of manometry in patient's follow-up (in terms of therapeutic) was higher in HRM (71% vs 44%).

***Conclusion:*** HRM allows an increment of pathologic findings in the approach of patients with GERD when compared to CM, including major motor disorders, with consequent changing in therapeutic approach of these patients.

***Keywords:*** Motor findings, esophageal manometry, gastroesophageal reflux disease

***PP-784***

## *Pancreatic insufficiency (IP) in cystic fibrosis (CF): Prevalence and poor prognostic factors*

**Ana L. Santos, Pedro Pereira, Pedro Moutinho, Filipe Vilas-boas Silva, Guilherme Macedo**

*Centro Hospitalar E Universitário De São João, Porto, Portugal*

***Background/Aims:*** It's estimated that 85% of CF's patients will develop PC, most at early ages. This study aims to assessment the IP's prevalence in a cohort of patients followed in a pancreatology outpatient consultation (POC), in a tertiary referral hospital. It was also intend to identify factors associated with the development of complications during the disease's course.

***Materials and Methods:*** Retrospective and descriptive study including patients followed in a POC of a tertiary hospital by pancreatic changes in context of CF.

***Results:*** A total of 20 patients were included [median age of 26 years (IQR 22-41), 65% male gender), with a mean follow-up time of 20.10 years and. After diagnosis, the mean reference time to POC was 16.11 years. The median diagnosis age was 6 years (IQR 0-23) and the predominant genetic mutation was the F508del (65%). In first consultation, 25% of patients presented digestive symptoms, predominantly steatorrhea (60%). The prevalence of PI was 85% [47%endocrine and exocrine PI (EnPI + EPI), 47% EPI and 6% EnIP]. Among 16 patients with EPI, 14 have the diagnosis supported by fecal elastase-1 dosing, all cases with values compatible with severe PI (<100mcg/g) and 9 supported by 13C-mixed triglyceride breath test, 56% of which with severe PI (<29%). The main imagiologic findings were the pancreatic primary atrophy and lipomatosis. Among 8 cases that performed endoscopic ultrasound, 63% had atrophy and heterogeneity of pancreatic parenchyma and 38% cystic lesions. In 45% of cases, there were complications requiring hospitalization (7 by pulmonary pathology, 2 by chronic pancreatitis exacerbation and 1 by acute pancreatits) that were associated to the presence of mellitus diabetes (p=0.026). The presence of PI, endocrine or exocrine, and an older age were associated to a higher rate of pancreatic complications (33%; p=0.046 e p=0.007, respectively).

***Conclusion:*** The higher PI prevalence justify the routine workup perform in way of its exclusion, even in asymptomatic patients. An older age and PI were associated to a higher risk of pancreatic complications.

***Keywords:*** Pancreatic insufficiency, cystic fibrosis, pancreatic complications

---

***PP-785***

## *Pentoxifylline has favorable preventive effects on experimental chronic pancreatitis model*

**Muhammet Yıldırım[1], Mustafa Kaplan[1], Alpaslan Tanoglu[2], Arif Karakaya[1], Zafer Çırak[1], Zafer Küçükodacı[3]**

*[1]Department of Internal Medicine, University of Health Sciences, İstanbul, Turkey*
*[2]Department of Gastroenterology, University of Health Sciences, İstanbul, Turkey*
*[3]Department of Pathology, University of Health Sciences, İstanbul, Turkey*

***Background/Aims:*** Experimental studies on chronic pancreatitis is scarce and useful therapeutic agents for this clinical entity is clearly limited. In this innovatively designed experimental rat model of chronic pancreatitis, we aimed to examine the biochemical and histopathological preventive effects of pentoxyfillin.

***Materials and Methods:*** 40 female Sprague Dawley rats were randomized into five groups: Group 1 (n=8, control): For 6 weeks, cerulein was enjected sc 3 days a week and 33% ethanol was enjected sc 5 days a week. Group 2 (n=8, low dose pent-

oxifylline): For 6 weeks, cerulein was enjected sc 3 days a week and 33% ethanol was enjected sc 5 days a week. From the second week, 25 mg/kg sc pentoxifylline was enjected 5 days a week, during 5 weeks. Group 3 (n=8, high dose pentoxifylline): All interventions done as Group 2. From the second week, 50 mg/kg pentoxifylline was enjected sc 5 days a week, during 5 weeks. Group 4 (n=8, placebo): For 6 weeks, cerulein was enjected sc 3 days a week and 33% ethanol was enjected sc 5 days a week. From the second week, 1 cc saline was enjected 5 days a week, during 5 weeks. Group 5 (n=8, sham): For 6 weeks, only saline was enjected 5 days a week. After the last enjections, all rats have been sacrified, tissue and blood samples were collected. Blood TNF alpha, TGF beta, malondialdehyde and glutathione peroxidase levels were measured.

***Results:*** Biochemical parameters as TNF alpha, TGF beta, malondialdehyde, glutathione peroxidase and histopathological scores were significantly improved in high dose pentoxifylline groups when compared with control and placebo groups ($p<0.001$). On the other hand, high dose pentoxifylline was more effective then low dose pentoxifylline treatment.

***Conclusion:*** To the best of our knowledge, this is the first study which is evaluating pentoxifylline's preventive effects on experimental rat chronic pancreatitis model in the literature. We have shown that pentoxifylline, which has anti-inflammatory and antioxidant properties, has favorably protective effects on the experimental model of chronic pancreatitis.

***Keywords:*** Chronic pancreatitis, pentoxifylline, rat, inflammation

---

***PP-786***

## *Assessment of pancreatic pseudocysts followed for endoscopic ultrasonography (EUS): Single center experience*

**Göksel Bengi, Yavuz Özden, Müjde Soytürk**

*Department of Gastroenterology, Dokuz Eylül University, İzmir, Turkey*

***Background/Aims:*** The aim of our study; laboratory, radiological, endosonographic and pathological examinations to guide the management of pancreatic pseudocysts during diagnosis and treatment.

***Materials and Methods:*** Between July 2009 and January 2018, 102 patients with a pre-diagnosis of pancreatic pseudocyst and at the endoscopy Department of Gastroenterology Clinic of Dokuz Eylül University Medical Faculty Hospital; 36 patients who underwent cystogastrostomy/cystoduodenostomy were included in the study.

***Results:*** In 51 of 102 cases with pancreatic pseudocyst, clinical findings were determined according to the location of the cystic lesion. The most common symptom was abdominal pain in 23 (45.09%) cases. The localization of the pseudocysts in the pancreas was 47.1% in the corpus, 23.5% in the head and 18.6% in the tail. Cases included in the study; Although 6 of 9 patients who were operated on were diagnosed as pseudocysts in EUS, surgical material; three were diagnosed with pancreatic adenocarcinoma, one with neuroendocrine neoplasia, one with MCN and one with IPMN. Of the 36 patients who underwent drainage, 35 (97.22%) had a cross-sectional resolution of pseudocysts (≥ 80%resolution of pseudocyst diameter), and 1 (2.78%) had partial resolution (30%) due to secondary anatomy and post-infection infection. Complications (8.3%) developed in 3 of 36 patients who underwent drainage. In eighteen patients undergoing cystogastrostmia/cystoduedonostomy, the NEU/LENF ratio was found to be 5.38. The diagnostic performance of CT was 47.5%, MRI was 63.1%, EUS was 78.4%, EUS + FNA was 95%.

***Conclusion:*** The lack of reliable imaging and biological markers showing benign/malignant distinction in cystic lesions of the pancreas has led to the development of guidelines for the clinician. The main reasons for this are; the lack of reliable imaging (CT/MRI/EUS) and inability to perform cyst analysis to identify high- or low-risk patients. Therefore, we believe that the role of EUS + FNAB should be better defined in the evaluation and follow-up of pancreatic cystic lesions.

***Keywords:*** Pancreas, pseudocyst, cyst, cystogastrostomy, cystoduodenostomy, endoscopic ultrasonography, neutrophil-lymphocyte ratio

***PP-787***

## *Motivational interviewing and screening uptake in first degree relatives of patients with colon cancer*

**Hamideh Salimzadeh[1], Alireza Delavari[1], Mohammad Reza Alami[2], Gilda Barzin[1]**

*[1]Digestive Oncology Research Center, Digestive Diseases Research Institute, Tehran, Iran*
*[2]Scandinavian Gastro Clinic, Mölndal, Sweden*

***Background/Aims:*** Motivational interviewing (MI) has been effective in improving preventive behaviors. We aimed to measure the impact of motivational interviewing (MI) on cancer knowledge and screening practice among first degree relatives (FDRs) of patients with colon cancer.

***Materials and Methods:*** This randomized controlled trial targeted patients with colon cancer first to recruit their possible FDRs. Digit randomization of the eligible index patients into intervention or control groups resulted in allocating their belonging FDRs to the same study arm. FDRs (n=120) in intervention arm received MI counseling on phone by a trained oncology nurse and FDRs (n=120) in control group received standard generic information by a physician on phone. Primary outcome was the rate of documented colonoscopy in FDRs within six months after the baseline.

***Results:*** A total of 227 FDRs were followed up, 115 in the intervention and 112 in the control group. At follow-up, the uptake of screening colonoscopy in the intervention group was 83.5%versus 48.2%in controls (crude odds ratio, 5.4; 95% confidence interval, 2.9-10.0, p<0.001).

***Conclusion:*** This was the first randomized controlled trial in Iran that confirmed the efficaciousness of a phone-based MI counseling in improving colonoscopy uptake among family members of patients with colon cancer. Phone-based motivational counseling that involves trained nurses or health providers seems to be feasible approach in Iran health system and enhances screening for colon cancer.

***Keywords:*** Motivational counseling, colonoscopy, screening uptake

---

***PP-788***

## *Knowledge, attitude, and practice of Iranian physicians towards colorectal cancer screening*

**Hamideh Salimzadeh[1], Catherine Sauvaget[2], Faraz Bishehsari[4], Mohammad Reza Alami[3], Alireza Delavari[1]**

*[1]Digestive Oncology Research Center, Digestive Disease Research Institute, Tehran, Iran*
*[2]Early Detection and Prevention (EDP), International Agency for Research on Cancer, Lyon, France*
*[3] Scandinavian Gastro Clinic, Mölndal, Sweden*
*[4] Department of Internal Medicine, Rush University Medical Center, Chicago, USA*

***Background/Aims:*** Very limited data is available about knowledge, attitude, and practice of physicians with regard to CRC screening in Iran. The aim of the current study was to explore knowledge, attitudes, and practices of Iranian physicians towards colorectal cancer (CRC) screening.

***Materials and Methods:*** This cross-sectional study was conducted in 2016 with participation of physicians. The survey explored patient-physician communication, physician's knowledge, attitudes, and their routine practice about CRC screening. All analyses were done with the software STATA/MP, 13.0.

***Results:*** A total of 123 physicians with mean age of 47.2 years participated in the survey. Colonoscopy was cited as the first-step screening test in average-risk individuals aged ≥ 50 years by 71 (57.7%) physicians followed by FOBTs in 22 (17.9%). Around two-thirds of the physicians reported prescribing colonoscopy in their routine clinical practice. Participants mentioned recommending CRC screening in healthy individuals aged 50-75 years (87.9%) and relatives of CRC patients (86.2%). Of note, the majority of physicians (89.4%) consented to screening policy in people aged ≥ 50 with symptoms suggestive of CRC. Factors affecting CRC screening from physician's perspective were individual's awareness towards a test; family support; fear of pain, test complications, and tests results; preparation for the test; and embarrassment.

***Conclusion:*** Our survey indicates that Iranian physicians are ready to play an appropriate and supportive role in the context of CRC screening, yet further active engagement of physicians is needed.

***Keywords:*** Colonic neoplasm, occult blood, attitude of health personnel

---

***PP-789***

## *A new B-mode image guided ultrasound attenuation parameter for the detection and quantification of hepatic steatosis: Preliminary results*

**Bâldea Victor, Lupușoru Raluca, Bende Felix, Fofiu Renata, Popescu Alina, Șirli Roxana, Sporea Ioan**

*Victor Babeș University of Medicine and Pharmacy, Timișoara, Romania*

***Background/Aims:*** The purpose of our study was to evaluate the diagnostic accuracy of the ultrasound-guided attenuation parameter (UGAP) for the detection and quantification of hepatic steatosis using controlled attenuation parameter (CAP) as the reference method.

***Materials and Methods:*** We prospectively included 79 subjects, mean age 44.2±17.7, mean BMI 24.7±4.9, 49 (62%) female and 30 (38%) male with or without chronic liver diseases who underwent UGAP and CAP measurements during the same session.UGAP was performed using Logiq E10 ultrasound scanner and CAP using a FibroScan device (Echosens, Paris, France).Because there are no reliability criteria for CAP measurement, we decided to use the reliability criteria for liver stiffness measurement (LSM) values. A reliable LSM value was defined as 10 valid shots with an IQR/M <30%(using M or XL probe).We used the following cut-offs for quantifying liver steatosis by CAP: 230-275, 275-300 and >300 db/m for mild, moderate and severe steatosis (S1, S2, S3) following the recommendations of the manufacturer. For UGAP we used the median value of 10 measurements in an area of liver parenchyma devoid of liver vessels at a minimum of 10 mm distance from the liver capsule with an IQR/M <30%.

***Results:*** We divided our cohort in 3 groups: 49 "normal" subjects (no liver disease, no steatosis on liver ultrasound), 22 NAFLD patients ("bright liver" with posterior attenuation on liver ultrasound and increased hepato-renal index) and 8 patients with other chronic hepatopathies. In our study group the mean UGAP value was 0.59±0.12 for the entire cohort. Mean UGAP value for the normal patients was 0.54±0.08 and for NAFLD patients was 0.67±0.1, p<0.0001. The best cut-off value for normal patients was ≤0.54, Se=63.2%, Sp=96.5%, PPV=96.9%, NPV=60.9%, AUC=0.84, p<0.0001. 30/79 patients had CAP done. Mean CAP value was 255±74.94. The correlation between CAP and UGAP was r=0.74, p<0.0001. We classify patients by means of CAP in S0: 11/30 (36.7%), S1: 6/30 (20%), S2: 2/30 (6.7%), S3: 11/30 (36.7%). Mean UGAP values for each subgroup was: 0.55±0.06, 0.61±0.07, 0.7±0.12, and 0.79±0.09 respectively.

***Conclusion:*** In conclusion, UGAP seems a reliable method for detecting hepatic steatosis in patients with or without cronic hepatopathies.

***Keywords:*** Steatois, nafld, ugap

***PP-790***

## *Diagnostic performance of shear wave elastography for the noninvasive assessment of liver fibrosis in chronic hepatitis C. Comparative study between point and two-dimensional shear wave elastography: Single center experience*

**Bâldea Victor, Șirli Roxana, Popescu Alina, Sporea Sporea**

*Victor Babeș University of Medicine and Pharmacy, Timișoara, Romania*

***Background/Aims:*** The goal of this study was to compare the noninvasive diagnostic performance of two elastography techniques for the diagnosis of liver fibrosis in a cohort of patients with known hepatitis C virus, using Transient Elastography (FibroScan) as the method of reference, since it is a validated tool for the non-invasive assessment of liver fibrosis.

***Materials and Methods:*** We prospectively included 129 patients with known hepatitis C virus in whom liver stiffness (LS) was evaluated during the same session by means of three elastography methods.Transient Elastography (TE) served as the reference method using the following cut-offs (7 kPa for F≥2, 9.5 kPa for F≥3 and 12 kPa for F=4).Point Shear Wave Elastography (pSWE) was performed using virtual touch quantification (VTQ) technology-Siemens Acuson S2000TM; and Two-Dimensional Shear Wave Elastography (2D-SWE) using General Electrics LOGIQ E9 ultrasound machine.LS measurements (LSM) by TE (M or XL probe), pSWE and 2D-SWE were considered reliable when IQR/M <30%.

***Results:*** Reliable LSM were obtained in 91% (118/129) of cases by means of TE, in 88% (114/129) by means of VTQ and in 86% (111/129) by means of 2D-SWE.GE. The final cohort of 95 patients with reliable LSM by all methods had a median age of 62 (40-84) and a median BMI of 27 (18-42) kg/m$^2$, 60 (63.2%) being female. From the cohort, 16 patients (16.8%) had significant fibrosis (F≥2), while 71 (74.7%) had cirrhosis (F4).Optimal (Youden) pSWE and 2D-SWE cut-off values for F4 were 1.65 m/s (AUROC: 0.91), and 8.3 kPa (AUROC 0.91), respectively.Cut-offs for ruling in F≥2 and F4 were determined at 1.32 m/s (PPV 85%) and 1.77 m/s (PPV 98%) for p-SWE, while for 2D-SWE they were 7.5 kPa (PPV 86%) for F≥2 and 12 kPa (PPV 98%) for F4.No statistical differences were found between the performance of both methods (p<0.96).

***Conclusion:*** pSWE (VTQ) and 2D-SWE.GE have similar performance for diagnosing liver cirrhosis and clinically significant fibrosis and seem to be a promising alternative to Transient Elastography in evaluating patients with liver fibrosis.

***Keywords:*** Liver elastography, pSWE, 2DSWE

---

***PP-791***

## *The burden of cirrhosis and its impact on the management of a county hospital*

**Moga Tudor Voicu, Camelia Foncea, Mirela Frandes, Alina Popescu, Radu Cotrau, Patricia Belintan, Madalina Topan, Andreea Barbulescu, Mirela Danila, Roxana Sirli, Diana Lungeanu, Ioan Sporea**

*Victor Babeș University of Medicine and Pharmacy, Timișoara, Romania*

***Background/Aims:*** The aim of this study was to underline the amount of resources that are being spent on cirrhotic patients during an interval of six months in the Gastroenterology department of "Pius Brinzeu" County Hospital, Timisoara.

***Materials and Methods:*** We performed a retrospective study on 224 consecutive patients with liver cirrhosis (LC), admitted in our department during a period of six months. The Hospital burden was defined by the number of admissions/patients, days of hospitalization/patient, reasons for admission, treatment and costs.

***Results:*** From the 224 patients, 46%were female and 54%male and the mean age was 63±9.5 years. As for the etiology 43.7%were ethanolic, 53.2%virusal (HBV, HCV) and other etiologies 3.1%. If we look at the Child Pugh (CP) score we had: CP A 26.3%, CP B 46.5%, and CP C 27.2%of the patients. The mean cost for a cirrhotic patient was 452.7±50.8 EUR and the mean cost for a cirrhotic patient admitted due to ascites was 710.2±14.5 EUR. When we compared the hospitalization of CP A+B patients with CP C, we observed significant differences, 3±3.3 days vs. 6±6.2 (Mann-Whitney U test, p<0.001). Similarly, when comparing the mean costs/hospitalization between the two groups (CA A+B) 834.8 EUR vs. (CP C) 1307.7 EUR we also observed significant differences (Mann-Whitney U test, p<0.001).

***Conclusion:*** Child Pugh C patients were of a much higher burden for the hospital in what regards the hospitalization and the readmission. The costs were much higher for the patients admitted due to ascites with a mean cost of 710.2±14.5 EUR/ patient.

***Keywords:*** Liver cirrhosis, hospital burden

---

***PP-792***

## *Comparison of pop score with BISAP, Ransons, Imrie and APACHE-II scores in predicting the severity and mortality in acute pancreatitis*

**Javed Pottachilakath[1], Manzoor Wani[2], Showkat Zargar[2], Gul Javid[2], Ghulam Nabi Yatoo[2], Altaf Shah[2], Ghulam Mohammad Gulzar[2], Jaswinder Sodhi[2], Mushtaq Khan[2]**

*[1]Meitra Hospital, Kozhikode, Kerala, India*
*[2]Sher-i-Kashmir Institute of Medical Sciences, Jammu and Kashmir, India*

***Background/Aims:*** For the management of acute pancreatitis (AP), multiple-factor scoring systems have been developed to identify those patients who are most likely to develop severe acute pancreatitis and death. The aim of this study was to compare traditional scores like Ransons, Imrie's, APACHE, BISAP scores with POP score in predicting severity and mortality in patients with AP as POP has not been studied in Indian population.

***Materials and Methods:*** All the adult patients with AP (as per the revised Atlanta criteria definitions) were prospectively studied over a period of 3 years. Laboratory investigations relevant to APACHE II, POP, Ranson's, Imrie's criteria and BISAP score were done and scores were calculated. Predictive accuracy of the scoring systems was measured by the area under the receiver-operating curve (AUC).

***Results:*** 226 adult patients of acute pancreatitis were studied with mean age of 45±16.52 years and female preponderance (Female:Male=2.14: 1). The most common etiology was gallstones (50.4%) followed by adult round worm (11.5%). 55.75% of the cases were mild AP and 27% as severe acute pancreatitis (SAP) as per revised Atlanta classification with mortality in 3.98% patients. AUC for predicting SAP was 0.859,0.873,0.846,0.82,0.701 for BISAP, Ransons, Imrie, APACHE II and POP score respectively and 0.872,0.921,0.87,0.89,0.895 for BISAP, Ransons, Imrie, APACHE II and POP score respectively for the prediction of mortality.

***Conclusion:*** All scoring systems are equally effective in predicting mortality but POP score is inferior to all other scores in predicting severity of acute pancreatitis.

***Keywords:*** Comparison, pancreatitis, mortality

***PP-793***

## *Attitude and knowledge of family physicians with irritable bowel syndrome*

**Mustafa Reşat Dabak[1], Oya Uygur Bayramiçli[2], Sabah Tüzün[3], Burak Ölmez[4], Sevin Demir[5], Gülbüz Sezgin[6]**

*[1]Department of Family Medicine, Haseki Training and Research Hospital, İstanbul, Turkey*
*[2]Priviate Office, Istanbul, Turkey*
*[3]Department of Family Medicine, Kartal Dr. Lütfi Kırdar Training and Research Hospital, İstanbul, Turkey*
*[4]Sinanpaşa Küçükhüyük Primary Health Care Center, Afyonkarahisar, Turkey*
*[5]Department of Family Medicine, Maltepe University Medical School, İstanbul, Turkey*
*[6]Department of Internal Medicine, Maltepe University Medical School, İstanbul, Turkey*

***Background/Aims:*** The aim of this study was to evaluate the knowledge and attitudes of family physicians (FPs) to irritable bowel syndrome (IBS).

***Materials and Methods:*** The study included FPs who participated in the postgraduate educational meetings and congresses organized in Turkey between December 2018 and May 2019 on primary health care (PHC). A questionnaire consisting of 23 items prepared by the researchers was filled out by the physicians as a premeeting evaluation.

***Results:*** A total of 901 FPs were included in the study. Mean age of the physicians was 40.50±10.50 years, 155 (17.26%) were specialists of family medicine, 543 (60.47%) were general practitioners and 200 (22.27%) were resident in the department of family medicine. Of the FPs, 321 (35.79%) were working in the Marmara region whereas 125 (13.94%) in the Aegean region, 132 (14.72%) in the Mediterranean region, 139 (15.50%) in Central Anatolia, 46 (5.13%) in the Eastern Anatolia region, 69 (7.69%) in the Southeastern Anatolia region and 65 (7.25%) in the Black Sea region. Of the FPs, 707 (79.80%) were found to provide treatment and follow-up services for the patients with IBS and 242 (30.95%) FPs were seen to examine more than 10 patients with IBS per week. It was found out that 858 (95.97%) of the FPs look for IBS symptoms, 50 (5.59%) order laboratory tests, 26 (2.91%) request for diagnostic imaging and 69 (7.72%) refer the patient to a gastroenterology specialist. Of the FPs, 393 (44.91%) were seen to use Rome criteria for diagnosis and treatment whereas 419 (47.45%) were seen to use internet and 236 (27.06%) use additional diagnostic methods. Gastroscopy and colonoscopy were recommended by 62 (7.05%) and 62 (7.05%) of the FPs, respectively.

***Conclusion:*** In conclusion, FPs have been found to be involved in the diagnosis, treatment and follow-up of patients with IBS.

***Keywords:*** Irritable bowel syndrome, family physician, primary health care center

---

***PP-794***

## *Clinical profile and efficacy of antivirals in hepatitis B virus reactivation, in cancer patients receiving chemotherapy*

**Manzoor Wani[1], Jaswinder Singh Sodhi[2], Showkat Zargar[2], Ghulam Nabi Yatoo[2], Altaf Shah[2], Ghulam Mohammad Gulzar[2], Mushtaq Khan[2]**

*[1]Jlnm Hospital, Rainawari, Jammu and Kashmir, India*
*[2]Sher-i-Kashmir Institute of Medical Sciences, Jammu and Kashmir, India*

***Background/Aims:*** Aim of the present study was to find out clinical profile of cancer patients receiving chemotherapy with hepatitis B virus reactivation (HBVR) and to study the efficacy of entecavir and tenofovir in the treatment of HBVR as it has not been previously studied.

***Materials and Methods:*** This is a prospective open label study in which all consecutive cancer patients with evidence of HBVR were included. HBVR was defined as: New onset transaminitis with ALT > 3 times upper limit of normal and >10 fold increase

in HBV DNA levels from baseline levels or detection of HBV-DNA ≥100,000 IU/ml in patients with no baseline HBV DNA. Patients with HBVR were put either on entecavir or tenofovir and were closely monitored for minimum of 1 year. Proportion of patients with undetectable HBV DNA, ALT normalization, drop in HBV DNA and HBsAg negativity/seroconversion were compared in both groups at 48 weeks.

***Results:*** HBVR was 4 times more common in hematological malignancies than solid malignancies. Out of 92 patient who met the inclusion criteria, 46 received entecavir (ETV) and 46 received tenofovir disoprovil fumarate (TDF). At 24 weeks, there was 4.7 log reduction in HBV DNA level in ETV group and 5.2 log reduction in TDF group(p=0.029). Proportion of patients with undetectable HBV DNA (75.7%vs 87.5%), ALT normalization(89.2% Vs 87.5%), HBsAg negativity(40.5%vs 40.6%) and seroconversion(18.9%vs 21.8%) at 48 weeks were almost similar in both groups with p value >0.05 for all efficacy end points. There was no HBVR related mortality in any group.

***Conclusion:*** Both entecavir and tenofovir are very effective in the treatment of HBVR and reduce the liver related mortality and morbidity in such patients.

***Keywords:*** Reactivation, hepatitis B, chemotherapy

---

***PP-795***

## *Hepatitis B virus screening and immunization rates in special risk groups*

**Yasemin Balaban, Abdullah Tarık Aslan, Fatma Nur Akdoğan, Alpaslan Alp, Osman Dağ, Şefika Ayar, Fuad Mustafayev, Cem Şimsek, Javansir Vahabov, Tolga Yıldırım, Hakan Göker, Koray Ergunay, Gülşen Hasçelik, Yunus Erdem, Yahya Büyükaşık, Tugrul Purnak, Halis Şimşek**

*Hacettepe University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Hepatitis B virus (HBV) infection is a substantial global burden. Although there are vaccines, the infection is still prevalent with persisting sources of infection such as vertical transmission. Therefore, vaccination preserves its importance especially for certain risk groups. This study was contemplated to evaluate the screening and immunization in these risk groups.

***Materials and Methods:*** The patients older than ≥ 18 years of age that are under risk for HBV were recruited including 97 renal transplant recipients (RT), 47 autologous-hematopoietic stem cell transplantation recipients (AHSCT) and 75 patients with chronic hepatitis C (CHC). The laboratory and HBV serology were obtained with chart review between June 2014 and June 2019. Other parameters were gathered through patient interviews by face to face or phone call.

***Results:*** The screening rates for HBV were 91.8% in RT group, 94.7% in CHC group, and 100% in AHSCT group. However, none of the patients were screened every year for HBV in AHSCT and RT groups, which contrasts with the current recommendations. Among RT recipients, 68.5% (n=61) were immunized against HBV, in which 10.1% (9 patients) with previous exposure and 58.4% (n=52) with vaccination. The immunization rate among AHSCT was 66.0% (n=31); 12.7%(n=6) through previous exposure and 53.2%(n=25) by vaccination. Among patients with CHC, immunization rate was 38.0%(n=16), 22.5%(n=60) through previous exposure and 15.5% (n=11) by vaccination. The compansated cirrhosis (Child-Pugh A) was present in 18 patients with CHC in whome the screening, immunization and vaccination rates were 100.0%, 38.8% and 22.2%, respectively. The statistical analysis of groups according to screening, immunization and vaccination rates were as shown in Table 1.

***Conclusion:*** Although the screening rates for HBV were over 90% in risk groups, immunization and vaccination rates were far from optimum. These results underline the importance of awareness for HBV screening and vaccination especially in high risk groups.

***Keywords:*** HBV, serology, screening, risk groups, immunosuppression

***PP-796***

## *Efficacy of autologous adipose tissue-derived mesenchymal stem cell transplantation in patients with HCV cirrhosis*

**Murat Kantarcıoğlu[1], Ercüment Ovalı[2], Mükerrem Safalı[5], Hakan Demirci[4], Beytullah Yıldırım[3], Ahmet Bektaş[3], Kadir Öztürk[5], Ferit Avcu[6], Ahmet Uygun[5], Dilek Oğuz[5], Ali Uğur Ural[1], Sait Bağci[8]**

*[1]Lösante Hospital, Ankara, Turkey*
*[2]Acibadem Labcell, İstanbul, Turkey*
*[3]Ondokuz Mayıs University Hospital*
*[4]İstinye University Pendik Hospital, İstanbul, Turkey*
*[5]Gülhane Hospital, Ankara, Turkey*
*[6]Memorial Hospital, Ankara, Turkey*
*[7]Bayindir Hospital, Ankara, Turkey*
*[8]Ortadoğu Hospital, Ankara, Turkey*
*[9]Kırıkkale University Hospital, Kırıkkale, Turkey*

***Background/Aims:*** Adipose tissue-derived Mesenchymal Stem Cells (aMSCs) can differentiate into hepatocytes and had shown to have beneficial immunomodulatory effects. Micro RNAs (miRNAs) are small fragments of RNA that regulate gene expression. They play important roles in Hepatitis C virus (HCV) replication. In this study, we evaluated the efficacy of autologous aMSCs transplantation (tx) multiple times via peripheral vein and hepatic artery on liver fibrosis, hepatitis activity index, viral load and serum miRNA profile in patients with liver cirrhosis due to HCV hepatitis.

***Materials and Methods:*** Five non-responder, Child A or B patients with HCV (+) cirrhosis were enrolled in the study. Autologous subcutaneous fat tissue samples were collected for stem cell production. Prepared aMSCs were transplanted into the systemic circulation at the dose of $1x10^6$ cells/kg and into the liver via hepatic artery at the dose of $2x10^6$ cells/kg at the same time. Tx procedure was performed for three times in total, with a two-week interval. Liver biopsies were performed before and 6 months after tx. Peripheral blood samples were obtained for miRNA analysis and comparative microarray study (four times in total, before and three months after tx and later, before and after viral clearance with antiviral therapy with Harvoni©).

***Results:*** During the first six-month follow-up period, no change in HCV viral load and liver biochemical values were observed. There was no change in fibrosis levels in liver bx samples before and after treatment. Significant increases and repressions were observed in some miRNAs after MSC Tx procedure and after HCV eradication.

***Conclusion:*** Multiple times, aMSCs tx is a safe and well-tolerated procedure. This procedure, in our patients, made no significant change in liver fibrosis, serum viral load, and biochemical parameters. However, for the first time in literature, we demonstrated the serum miRNA profile changes in aMSCs transplanted and HCV eradicated patients.

***Keywords:*** Adipose tissue, mesenchymal stem cells, liver cirrhosis

---

***PP-797***

## *Pattern and distribution of lesions in dyspeptic patients undergoing upper gi endoscopy in Ibadan, South West, Nigeria*

**Kolawole Oluseyi Akande[1], Temitope Oke[2], Timuola Fakoya[2], Adegboyega Akere[1], Jesse Abiodun Otegbayo[1]**

*[1]Department of Medicine, College of Medicine, University of Ibadan, Nigeria*
*[2]Department of Medicine, University College Hospital, Ibadan, Nigeria*

***Background/Aims:*** Dyspepsia is a common symptom that makes patients seeks medical attention. It is a constellation of symptoms that are referable to the gastro-duodenal region. Upper GI endoscopy, though not indicated in all cases, offers the best diagnostic accuracy of the cause of the dyspepsia. The aim of this study was to describe the pattern and distribution of lesions in patients with dyspepsia who have undergone upper GI endoscopy in Ibadan.

***Materials and Methods:*** This was a retrospective study of patients who underwent upper GI endoscopy between 2014 and 2018. The reports of the Patients who underwent upper GI endoscopy within the period of interest were retrieved from the electronic data base. Patients' bio- data, indications and finding were extracted for each patient. Patients who had dyspepsia, epigastric pain, epigastric discomfort, indigestion and upper abdominal pain as indications were recruited. Data were summarized with descriptive statistics.

***Results:*** Out of 1432 that had upper GI endoscopy in the study period, dyspepsia was the indication in 761 patients. Their age ranged from 6 to 100 with a mean of 49.5±16 years. There were 330 (43.3%) males and 416 (54.7%) females, Missing 15 (2%). In the oesophagus, 614 (80.7%) had normal finding while 46 (6.1%) had oesophagitis, 36 (4.7%) had candidiasis, 16 (2.1%) had varices and others lesions 49 (6.4%). In the stomach, 232 (30.4%) had normal finding while 434 (57%) had gastritis, 40 (5.3%) had ulcers, 16 (2.1%) had polyps, 9 (1.2%) had mass, 30 (3.9%) had other lesions. Among those with gastritis, 147 (38.9%), 215 (49.5%), 241 (55.5%), 173 (38.9%) had cardia, corpus, antral and fundal gastritis respectively. Out of those with ulcers, 5 (12.5%), 17 (42.5%), 24 (60%), 3 (7.5%) and 1 (2.5%) had it in the cardia, body, antrum, fundus and incisura respectively. In the duodenum, 596 (78.3%) had normal study while 108 (14.2%) had duodenitis, 19 (2.5%) had ulcer, 8 (1.1) had polyps, others lesions 30 (3.9%).

***Conclusion:*** Only 163 (21.4%) patients with dyspepsia had normal study. Common lesions found included gastritis, duodenitis, oesophagitis, gastric and duodenal ulcers. The antrum was mostly involved in gastritis and ulcers. Gastric ulcers were commoner than duodenal ulcers.

***Keywords:*** Dyspepsia, upper GI endoscopy, findings

---

***PP-798***

## *HBV reactivation ratios in immunsupresive patients who are taking treatment of chemotherapy, immunotherapy and steroid therapy*

**Murat Karakoç, Erol Çakmak**

*Cumhuriyet University School of Medicine, Sivas, Turkey*

***Background/Aims:*** Hepatitis B virus (HBV) reactivation may occur in patients receiving immunosuppressive therapy such as chemotherapy or immunotherapy for various reasons. HBV reactivation has significant morbidity and mortality in immunosuppressive patients. In this study, patients who given immunosuppressive agents therapy such as cytotoxic chemotherapy, steroid therapy, monoclonal antibody therapy or anti-TNF treatment were examined and HBV reactivation rates and risk factors were determined in these patients.

***Materials and Methods:*** The records of 5230 patients who had received immunosuppressive treatment in Cumhuriyet University Medical Faculty between February 2008 and February 2018 were scanned retrospectively. Hepatitis serology was observed before or during immunosuppressive treatment in 3840 of these patients. The study was completed with 89 patients. All HBsAg positive patients were included in the study regardless of HBV DNA. The patients HbsAg negative were included in the study if Anti-HBc positive/anti-HBs negative and HBV DNA positive, Anti-HBc positive/anti-HBs negative and HBV DNA negative patients or Anti-HBc positive/anti-HBs positive and HBV DNA negative detected. The findings of the host factor, underlying disease, immunosuppressive agent and basal hepatitis serologies were examined in detail and the patients were divided into risk groups as high-risk, moderate-risk and low-risk.

***Results:*** The study included 89 patients, 58.42% (n=52) were male and 41.58% (n=37) were female. The ages of the patients who participated in the study ranged from 18 to 83 years and the mean age was 58.13±11.88 years. When the patients in our study were examined about host factors, statistically significant relationship was found between male gender and HBV reactivation (p=0.038). There was no statistically significant difference between the mean age and HBV reactivation (p=0.117). The patients examined at the study 14.6% (n=13) had hematological malignancy, 26.96% (n=24) had solid organ cancer, 46.17% (n=42) had rheumatic disease, 7.86% (n=7) had dermatological disease and 3.37% (n=3) had IBD. The patients included at the study were given immunosuppressive therapy, 22.47% (n=20) received rituximab, 3.37% (n=3) corticosteroids, 26.96% (n=24) cytotoxic chemotherapy, 42.69% Anti-TNF and 4.49% (n=4) had other immunosuppressive treatments. When the patients were divided into groups according to the immunosuppressive treatment, HBV reactivation rate was significantly higher in the patients receiving rituximab treatment (p=0.027). When the basal hepatitis serology of the patients was examined, it was found that 21.34% (n=19) of the patients were HBsAg positive and 78.66% (n=70) were HBsAg negative. When HBsAg negative patients were examined; 82.85% (n=58) were found Anti-HBs positive/Anti-HBc IgG positive, while 17.15% (n=12) were found Anti-HBs negative/Anti-HBc IgG positive. Anti-HBs antibodies were found that 65.16% (n=58) of the patients were Anti-HBs positive and 44.84% (n=31) were Anti-HBs negative. When the patients were divided into groups according to the immunosuppressive treatment, HBV reactivation rate was significantly higher in the patients receiving rituximab treatment (p=0.027). HBV reactivation rate was significantly higher in HBsAg positive patients than in patients with HBsAg negative (p=0.001). The detectable level of anti-HBs titer was found to be protective in terms of HBV reactivation risk (p=0.001). In addition, the correlation between basal ALT elevation (p=0.038) and creatinine height (p=0.029) with HBV reactivation was statistically significant. There was no statistically significant relationship between HBeAg status, baseline AST, bilirubin and albumin with HBV reactivation.

***Conclusion:*** In this study, the risk of HBV reactivation was higher in patients with hematological malignancy. However, the detectable level of anti-HBs titer was found to be protective in terms of HBV reactivation risk.

***Keywords:*** Hepatiti B virus, immunosuppression, reactivation, chemotherapy, immunotherapy

---

***PP-799***

## *Safety and efficacy of sofosbuvir+ledipasvir±ribavirin in a cohort of 210 patients with decompensated liver cirrhosis and hepatitis C virus infection genotype 1 b- real life data*

**Carmen Preda[1], Liliana Gheorghe[1], Cristian Baicus[1], Mircea Manuc[1], Andreea Chifulescu[2], Teodora Manuc[2], Letitia Tugui[2], Mircea Diculescu[1], Doina Istratescu[2], Speranta Iacob[1], Laura Iliescu[1]**

*[1]University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania*
*[2]UMF "Carol Davila" Gastroenterology & Hepatology Department, Clinic Fundeni Institute, Bucharest, Romania*

***Background/Aims:*** Sofosbuvir+Ledipasvir±Ribavirin showed good results in terms of efficacy and safety in clinical trials in decompensated cirrhosis, but real life data are still needed in order to confirm this profile.

***Materials and Methods:*** We analyzed a national prospective cohort enrolling 210 Romanian patients with decompensated liver cirrhosis due to chronic hepatitis C who received Sofosbuvir+Ledipasvir±Ribavirin for 12-24 weeks. Patients were included between september 2018- september 2019 and all of them had genotype 1b. All patients were treated and monitored in Fundeni Clinical Institute (Gastroenterology and Internal Medicine Departments). Main inclusion criteria were decompensated liver cirrhosis (Child Pugh score B or C) and detectable HCV RNA. The cases were followed-up monthly during therapy and then at 12 weeks after the end of therapy.188 patients were treated with Sofosbuvir+Ledipasvir+Ribavirin for 12 weeks and 22 received Sofosbuvir+Ledipasvir for 24 weeks.

***Results:*** 5 patients were lost during follow-up and in 14 patients (6.7%) treatment was interrupted due to adverse events: 9 with worsening hepatic decompensation (4.3%), 2 patients had cardiovascular events, 1 severe alergy and 2 bacterial infections. This cohort had 60% females with a median age of 61 years (37÷83), 12.4% IFN pre-treated, 50% with co-morbidities, 11% with Child Pugh C, 6% with virus B co-infection and 7% with treated HCC. Mean initial MELD score was 11.92±3.01 (7.1÷24.5). Sustained viral response in intention to treat was reported in 175/210 (83.3%), and per protocol 175/191 (91.6%). MELD score slightly increased at EOT to 12.17 (6.22÷20.74), but it decreased to SVR reaching 10.75 (6.23÷18.75). In total, 66% of patients improved their liver condition and only 5.2% aggravated at SVR. 7% died during the follow-up period. Predictive factors of SVR were: decreased bilirubin(p=0.01), absence of ascites (p=0.008) and lower Child Pugh score (p=0.01).

***Conclusion:*** Sofosbuvir+Ledipasvir±Ribavirin proved to be highly efficient in our difficult to treat population with 83.3% SVR. Serious adverse events were reported in 14/241 (1.4%), most of them due to severe liver decompensation (9/14). 66% of patients improved their liver condition. Predictors of SVR were: decreased bilirubin, absence of ascites, low Child Pugh score.

***Keywords:*** Sofosbuvir, ledipasvir, ribavirin, liver cirrhosis, hepatitis C virus

---

***PP-800***

## *Multifunctional expert-level recognition of medical images using transfer learning*

**Min Fu[2], Wei-ming Chen[1], Fei Zhou[1], Qi-zhong Zheng[3], Mei-zhu Hong[1], Jin-shui Pan[1]**

*[1]Zhongshan Hospital Affiliated to Xiamen University, Xiamen, Fujian, China*
*[2]Department Of Automation, Xiamen University, Xiamen, Fujian, China*
*[3]Department Of Pathology, Xiamen Hospital of Traditional Chinese Medicine, Xiamen, Fujian, China*

***Background/Aims:*** Accurate recognition of medical images such as pathological images and X ray is the base of clinical decision. However, human-based diagnosis of medical imaging always faces challenges with reliability and interpretability. Here, we aim at developing a diagnostic tool for the classification of medical images using transfer learning.

***Materials and Methods:*** We trained a neural network using cumulative microscopic images of the liver with hepatocellular carcinoma (HCC) or not confirmed by a panel of liver pathologists. The trained neural network was tested by using a test dataset consisted of other microscopic images with HCC or not and was further examined by human-machine confrontation. After limited training, we employed the tuned neural network to recognize several other kinds of medical images such as microscopic images for colorectal carcinoma (CRC), breast ductal carcinoma, retinal diseases, and chest X-Ray.

***Results:*** For the test dataset consisted of microscopic images with HCC or not, sensitivity, specificity, and area under curve (AUC) were 0.99, 0.98, and 0.98, respectively. In human-machine confrontation, the accuracy of AI framework was 0.985 while the accuracy of human experts fluctuated between 0.93 and 0.95. Based on transfer learning, the accuracies of AI framework for CRC, breast ductal carcinoma, retinal diseases, and chest X-Ray were 0.96, 0.95, 0.962, and 0.952, respectively.

***Conclusion:*** The performance of AI framework is comparable to that of human experts. After limited training, the framework also has excellent performance in recognizing other types of medical images.

***Keywords:*** Neural network, artificial intelligence, human-machine confrontation, transfer learning

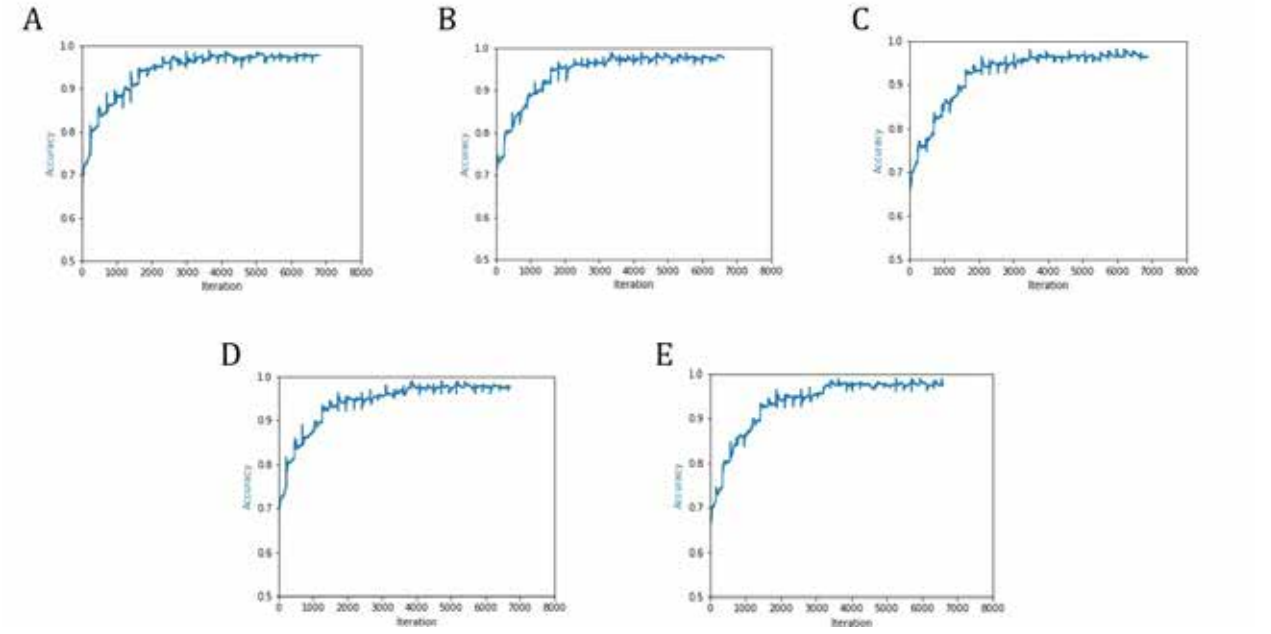



**Figure 1.** Accuracy of image classification during iteration. A to E represent our neural network trained with randomly divided data set. Iteration means the process of updating the model's parameter once with batch data. Accuracy refers the accuracy of image classification during iteration.

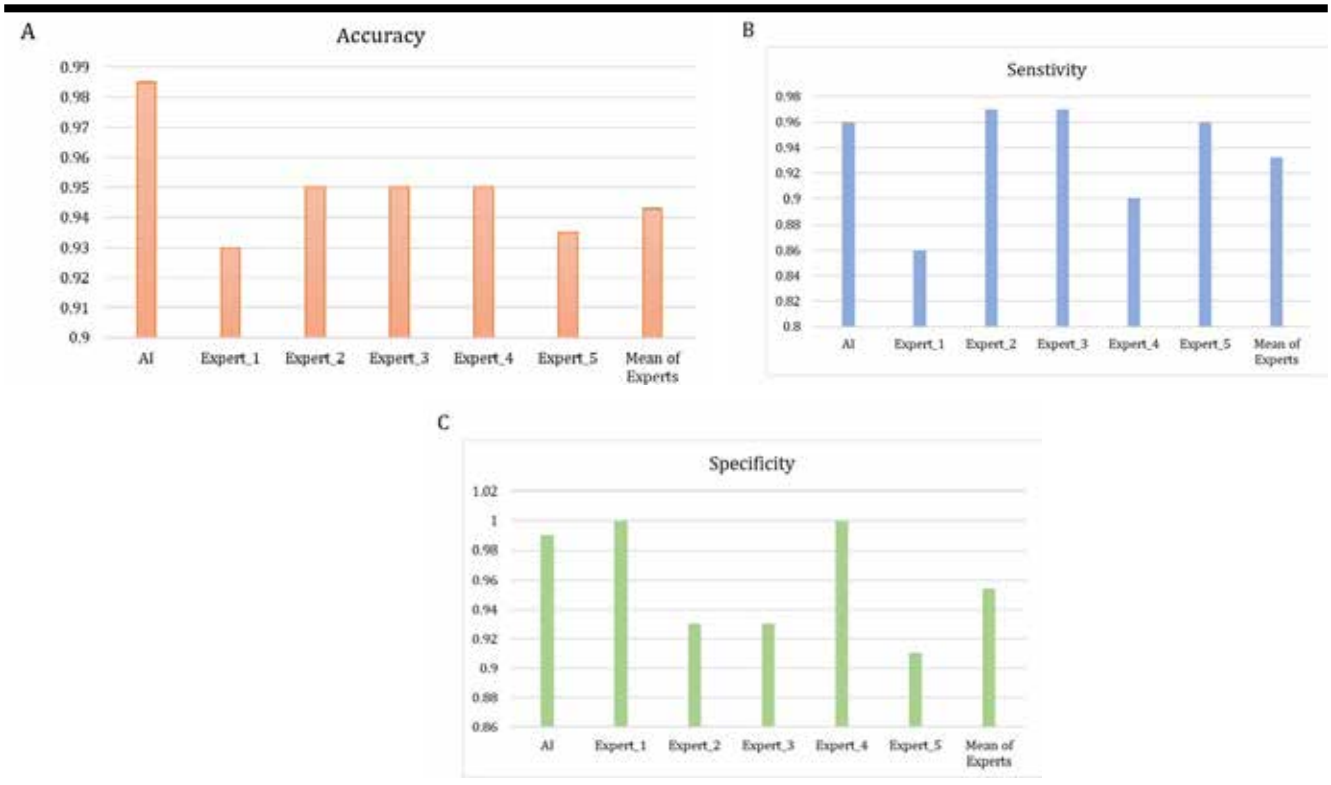



**Figure 2.** Performance of AI framework and human experts during human-machine confrontation. A, accuracy of AI framework and human experts; B, sensitivity of AI framework and human experts; C, specificity of AI framework and human experts.

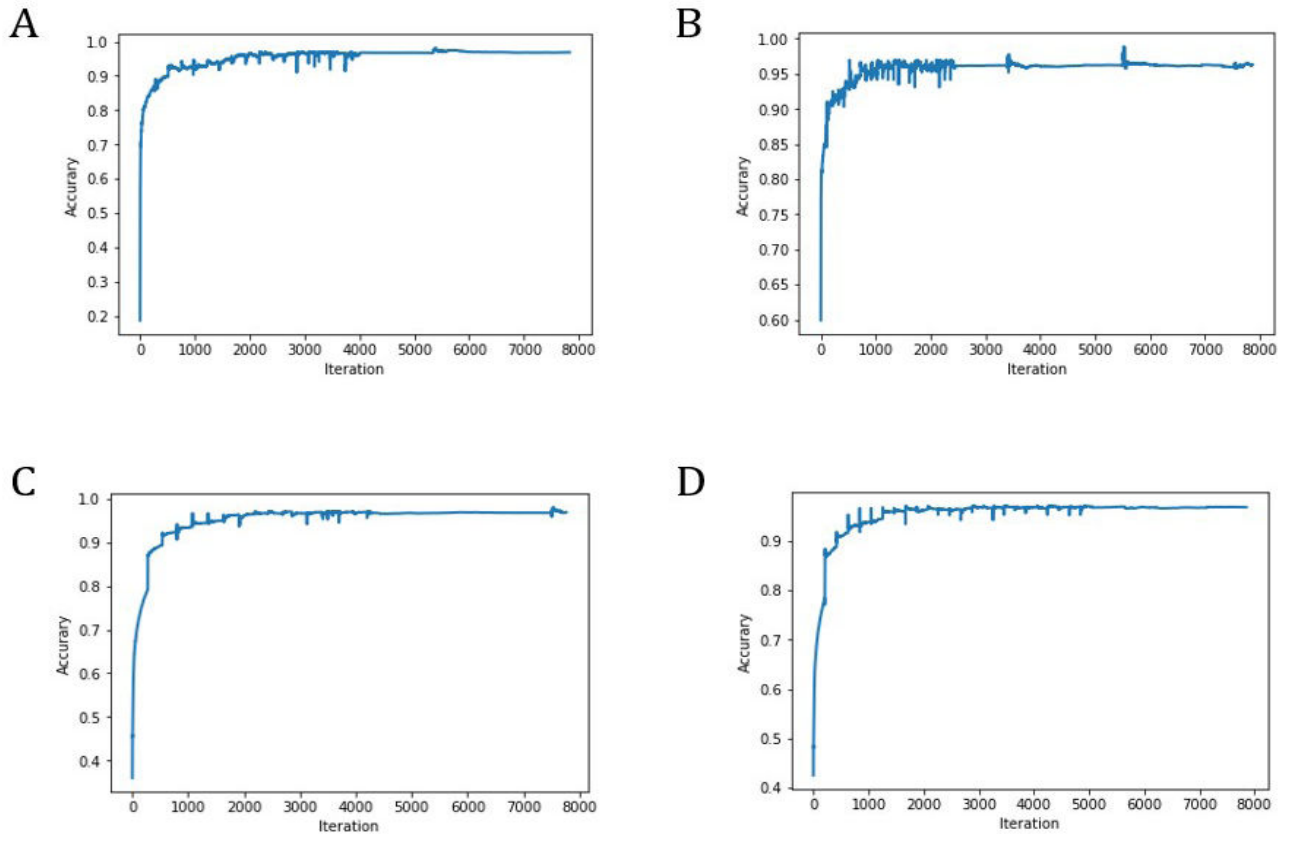



**Figure 3.** Accuracy of image classification during iteration using transfer learning. A to D represent our neural network trained with limited data using transfer learning. Iteration means the process of updating the model's parameter once with batch data. Accuracy refers the accuracy of image classification during iteration using transfer learning for different kinds of medical images. A, colorectal carcinoma; B, breast ductal carcinoma; C, retinal diseases; D, chest X-Ray.

***Table 1.*** Performance of AI framework for the classification of other types of medical images using transfer learning

| | Accuracy | Specificity | Sensitivity |
|---|---|---|---|
| Colon cancer | 96.0% | 96.0% | 96.0% |
| Breast cancer | 95.0% | 95.0% | 96.0% |
| Retinal diseases | 96.2% | 98.0% | 95.6% |
| Chest_X Ray | 95.2% | 95.3% | 95.1% |

***PP-801***

## *Endoscopic retrograde cholangiopancreatography in super aged elderly: Is it safe?*

**Ebru Tarıkçı Kılıç[1], Resul Kahraman[2]**

*[1]Department of Anesthesiology, Ümraniye Training and Research Hospital, İstanbul, Turkey*
*[2]Department of Gastroenterology, Ümraniye Training and Research Hospital, İstanbul, Turkey*

***Background/Aims:*** Literature on the safety of endoscopic retrograde cholangiopancreatography (ERCP) in the super aged elderly patients is still on debate. Based on this we aimed to evaluate the outcomes and safety of ERCP in super aged elderly.

***Materials and Methods:*** A total of 51 patients aged 90 years or older underwent ERCP during January 2014-December 2018. Data were evaluated for the presence of comorbidities, American Society of Anesthesiologists (ASA) classification, indications, procedure time, adverse events related to procedure and anesthesia, and outcomes. The severity of comorbidities were evaluated using the Charlson Comorbidity Index (CCI). A cutoff of CCI ≥2 was used to identify the patients based on their comorbidities.

***Results:*** There were 51 patients with a median age of 91.86±2.42 years and 31.4%of them male. The mean procedure time was 35.16±6.65 minutes. Bile duct stones were the most common indication (66.7%). Sphincteretomy was performed in 82.4% patients. Procedure related minor adverse events were observed in 17.6%patients whereas anesthesia related minor events were observed in 23.5%patients. Overall success rate was found to be 86.3%.

***Conclusion:*** Therapeutic ERCP is a safe and effective treatment for pancreatobiliary disease in patients 90 years of age or older. Age ≥90 and CCI ≥2 are independently associated with increased odds of in-patient morbidity in patients undergoing ERCP.

***Keywords:*** Endoscopic retrograde cholangiopancreatography, super aged elderly, safety, adverse events, outcomes

| Clinical presentation | |
|---|---|
| Age, mean±SD | 91.86±2.42 |
| Male, n (%) | 16 (31.4) |
| Emergency procedure, n (%) | 6 (11.8) |
| Success, n (%) | 44 (86.3) |
| Sphincteretomy, n (%) | 42 (82.4) |
| Stent, n (%) | 17 (33.3) |
| Procedure related adverse events, n (%) | 9 (17.6) |
| Bleeding | 4 (7.8) |
| Mucosal injury | 2 (3.9) |
| Fever | 2 (3.9) |
| Post ERCP pancreatitis | 1 (2.0) |
| Indication, n (%) | |
| Bilier stone | 34 (66.7) |
| Cholangit | 12 (23.5) |
| Abnormal imaging/Mass | 5 (9.8) |
| Anesthesia related adverse events | 12 (23.5) |
| Atrial fibrillation | 4 (7.8) |
| Respiratory depression | 3 (5.9) |
| Hypotension | 3 (5.9) |
| Apnea | 2 (3.9) |

***PP-802***

## *De novo hepatocellular carcinoma after direct acting antiviral therapy for chronic hepatitis C: A study from south Asian country*

**Sofia Hanif, Shahid Rasool, Ahmad Nawaz**

*Madina Teaching Hospital, Faisalabad, Punjab, Pakistan*

***Background/Aims:*** To determine the frequency of newly diagnosed cases of HCC after completion of direct acting antiviral therapy in patients with Chronic hepatitis C.

***Materials and Methods:*** This hospital based Quasi interventional study was conducted in department of gastroenterology at Madina Teaching Hospital from May 2018 to April 2019. A total of 90 patients with chronic hepatitis C, who have completed DAA Therapy at least 6 months back were enrolled via Non-Probability sampling technique. Patients with prior or concurrent history of HCC were excluded. All patients were followed for minimum of 1 year. Results were based on Ultrasound Abdomen, performed every 3 monthly along with AFP levels to look for any new lesion in the liver,which was confirmed to be HCC by Triphasic CT Scan. Data was presented as mean+/-SD, frequency, percentages and was anaylsed using Statistical Package for Social Sciences version 24.0.

***Results:*** Out of 90 patients, 59 (65.6%) were females and 31 (34.4%) were males, 63 ( 70%) patients were non cirrhotic,19 (21.1%) compensated cirrhotic and 8 ( 8.9%) were decompensated cirrhotic on pretreatment evaluation. SVR was achieved in 87 (96.7%). During the follow up period, 5 (5.6%) patients developed de novo HCC, 3 were in the compensated, 2 in the decompensated and none in the non-cirrhotic group. Out of these 5 patients who developed HCC, SVR was achieved in 4.

***Conclusion:*** Data from our study shows that none of the non-cirrhotic group developed HCC, while few patients developed de novo HCC (5.6%) in the cirrhotic group after DAA exposure. To establish the above said association, for sure we need to study with larger sample size and longer follow up.

***Keywords:*** Direct acting antiviral agents, hepatocellular carcinoma, sustained virological response

---

***PP-803***

## *Molecular markers in early detection of colitis associated cancer risk*

**Argjira Juniku-Shkololli[1], Suzana Manxhuka-Kerliu[2], Halil Ahmetaj[3], Zaim Gashi[1], Sadik Zekaj[1]**

*[1]Department of Gastroenterology, University Clinical Center of Kosovo, Pristina, Kosovo*
*[2]Department of Pathology, University Clinical Center of Kosovo, Pristina, Kosovo*
*[3]Department of Pathophysiology, University Clinical Center of Kosovo, Pristina, Kosovo*

***Background/Aims:*** The incidence of colorectal cancer (CRC) is higher among patients with inflammatory bowel disease (IBD). Even though CRC develops in a small number of IBD patients (1%), it carries a high percentage of mortality (20%) of IBD. However, colitis-associated cancer (CAC) is often difficult to detect (endoscopically and histologically) because of modifications of the mucosal structure by inflammation. There is a different sequence of tumorigenic events that occurs in the development of sporadic CRC, especially regarding the time of p53 mutation. It has been reported that the p53 gene mutations are early events and play a crucial role during IBD-associated neoplasia. Overexpression of p53 in colonic epithelia is usually detected in UC patients when no dysplasia is histologically seen and it is used by pathologists as a discriminator between regenerative changes and intraepithelial neoplasia, as well as a tissue biomarker useful to predict the risk of evolution toward malignancy. NF-kappa B is one of the central activators of the inflammatory program, in which

it upregulates other gene expressions linked to tumor cell survival, proliferation, invasion, angiogenesis and metastasis**.** NF-kappa B is suspected to be the essential link between inflammation and carcionogenesis.

***Materials and Methods:*** We evaluated expression of two marker proteins, p53 and NF-kappa B, by immunohystochemistry in tissue slides from paraffin blocks of biopsies from 33 patients with IBD. The expression of p53 was determined as a percentage of epithelial cells showing strong nuclear staining. Slides in which over 10% of cells showed nuclear staining were considered positive, with further classification of low score (10-15%of cells stained), medium score (20-25%) and high score (>50%). Regarding NF-kappa B, only nuclear staining was counted (as for p53) since NF-κB translocates to the nucleus, where it acts as a positive regulator of target genes. The total percentage of positive cells was recorded for each case and the slides were classified as low percentage of stained cells (10-15%), medium score (20-25%) and high score (>50%).

***Results:*** Nuclear p53 expression was positive in 51.5% of patients, of which 31.8% were with low positivity, 15.1% were medium and 6.06% were highly positive. As for NF-kappa B, 57.6% of patients had positive nuclerar staining, of which 39.4% low percentage of stained cells, 9.1% medium and another 9.1%had high percentage of stained cells.

***Conclusion:*** The molecular alterations of the non-neoplastic epithelium, which are identified in IBD patients with dysplasia, may be promising as markers for identifying patients at high risk of developing CAC.

***Keywords:*** Inflammatory bowel disease, colorectal cancer, p53, NF-kappa B

---

***PP-804***

## *Infundibulotomy vs papillary precut in difficult catheterizations: Monocentric comparative study*

**Rim Benjira, Hakima Abid, Maria Lahlali, Asmae Lamine Sejai, Nada Lahmidani, Mounia Elyousfi, Mohammed Elabkari, Sidi Adil Ibrahimi, Benajah Dafr-Allah**

*The Hassan II University Hospital, Fez, Morocco*

***Background/Aims:*** The catheterization of the main bile duct (MBD)is the crucial step that determines the success of endoscopic therapeutic procedures on bile ducts. However, failure of conventional biliary catheterization appears to be a common problem. In this situation, infundibulotomy and papillotomy remain the two backup techniques. The purpose of our work was to evaluate and compare the efficacy and safety of the two distinct precut techniques.

***Materials and Methods:*** It's a retrospective study from April 2012 to June 2019 including 92 patients who underwent endoscopic retrograde cholangiopancreatography (ERCP), called as difficult with primary failure of catheterization of the MBD, at our department. The patients were subdivided into 2 groups according to the technique performed: papillary precut (n=29); infundibulotomy (n=64).

***Results:*** The mean age was 64.4 years [30; 97], with a sex ratio F/M of 1.4.13.9% of our patients were cholecystectomized. The obstacle was tumor in 46 patients and lithiasic in 33 cases. 89% of our patients had an acute cholangitis. The condition of the papilla was normal in 58 patients (63%), while 5 had papillary diverticulum and 6 had atypical papilla. MBD was successfully drained at 65%: papillotomy (n=19), infundibulotomy (n=41). Complications occurred in 55% of the "papillotomy group" of which 68.7% was pancreatitis (n=11) whereas only 37.5% of the "infundibulotomy group" presented complications.

***Conclusion:*** Our results assert that infundibulotomy and papillotomy have nearly equivalent efficency in difficult biliary catheterizations, whereas, papillotomy exposes to more complications.

***Keywords:*** ERCP, precut, infundibulotomy, papillotomy

***PP-805***

## *What impact would routine screening for hepatocellular carcinoma have in our context?*

**Rim Benjira, Hakima Abid, Maria Lahlali, Asmae Lamine Sejai, Nada Lahmidani, Mounia Elyousfi, Mohammed Elabkari, Sidi Adil Ibrahimi, Benajah Dafr-Allah**

*The Hassan II University Hospital, Fez, Morocco*

***Background/Aims:*** Hepatocellular carcinoma (HCC) is the most common primary liver tumor. Patients with chronic liver disease or cirrhosis have an increased risk of HCC. The purpose of our work is to evaluate the benefit of the routine HCC screening program on survival and access to treatment.

***Materials and Methods:*** This is about a descriptive retrospective study of 102 cases of HCC collected in our department between January 2009 and June 2019. The patients whose HCC had been diagnosed as part of a biannual screening were « the screened group ». The others formed the « unscreened group.

***Results:*** The mean age of our patients were 62 years old [21; 82] with a sex ratio M/F at 0.92. Forty three patients (42.1%) were under screening protocol while 54 of the non screened were symptomatic.The mean tumor size at the time of diagnosis was in the 2.4cm in the screened groupe Vs 5.9 cm. Patients were classified as child A in 86% of the screened patients vs. 45.7%of the unscreened ones. The screened patients were classified as stage A according to the BCLC classification in 60% vs in 56% of the unscreened patients and were more frequently treated with a curative aim (48%%vs 15.2%) in the group screened. The mortality rate was 48% in patients diagnosed (n=21) compared to 66.1% of unscreened patients (n=39).

***Conclusion:*** Despite recommendations, routine screening only included 42.1% of patients seen for HCC. The beneficial impact of screening on survival has been observed in this population. Nevertheless, only 48% of screened patients had access to curative treatment.

***Keywords:*** Hepatocellular carcinoma (HCC), Screening, prognosis

---

***PP-806***

## *APRI/FIB4 vs fibroscan in chronic carriers of hepatitis B virus*

**Rim Benjira[1], Hakima Abid[1], Sofia Zoukal[2], Samira Hassoune[2], Maria Lahlali[1], Asmae Lamine Sejai[1], Nada Lahmidani[1], Mounia Elyousfi[1], Mohammed Elabkari[1], Sidi Adil Ibrahimi[1], Dafr-Allah Benajah[1]**

*[1]The Hassan II University Hospital, Fez, Morocco*
*[2] Laboratory of Epidemiology and Community Medicine, University of Casablanca School of Medicine, Casablanca, Turkey*

***Background/Aims:*** Some non-invasive techniques have been proposed as alternatives to liver biopsy to evaluate the liver fibrosis among which FibroScan®, who remains a validated method. Currently, there are several other non-invasive methods based on inexpensive bioassays to predict liver fibrosis, including APRI scores and FIB-4. Our goal is to determine the FibroScan® concordance with the APRI and FIB-4 scores in the detection of fibrosis during chronic hepatitis B.

***Materials and Methods:*** Retrospective study including all HBsAg-positive patients with normal transaminases, weakly replicating, monoinfected with HBV, who benefited from FibroScan® between July 2017 and July 2019,and at whom APRI scores and FIB-4 were calculated.

***Results:*** A total of 204 patients were evaluated. The average age was 48.8 years with a sex ratio M/F at 1.23. The average value of Fibroscan® was 6.58 kPa. The agreement between FibroScan® and Fib-4 on the one hand, and FibroScan® with the APRI score

on the other, as well as APRI and Fib-4, were calculated while basing on the model of degrees of agreement and the values of Kappa. The results were as follows: the 1st was bad (K=0.10), the 2nd was moderate (K=0.248) while the third was good (k=0.655).

***Conclusion:*** Our study showed that the agreement between FibroScan® and the FIB-4 index was poor, that it was moderate between the APRI score and the FibroScan®, whereas it was good between the two scores: APRI and FIB-4.

***Keywords:*** Non-invasive techniques, liver fibrosis, FibroScan, APRI/FIB-4, concordance

---

***PP-807***

## *Treatment of inflammatory bowel disease with anti-TNFα: indication and evolution*

**Manal Mahmoudi, Nawal Lagdali, Imane Benelbarhdadi, Camelia Berhili, Mohamed Borahma, Fatima Zahra Ajana**

*Department of Gastroenterology, Ibn-sina University Hospital, Mohamed V University, Rabat, Morocco*

***Background/Aims:*** The advent of biotherapies, including anti-TNF alpha, has revolutionized the therapeutic management of IBD. Objective of our study was to determine the clinical aspects of IBD treated with anti-TNFα, with a retrospective evaluation of the efficacy of anti-TNFα in patients followed at our service.

***Materials and Methods:*** This is a retrospective study that collects all patients with IBD hospitalized in our department and treated with anti-TNF alpha.

***Results:*** On 94 anti-TNF-treated IBDs (IFX: 77%, ADA: 23%, 90 cases=MC and 4 cases=RCH). The average age of 33 years (25-42 years), sex ratio (F/H): 1.15. 7.5% had a history of IBD in the family, A third of patients had at least one extra-digestive manifestation. The median evolutionary decline of IBD was 75.93 months (range 6-348). For CD, 22.47% were smokers, the topography was ileal=20%, ileocolic=26%, colonic=53.7% of cases. Ano-perineal manifestations=52.7% of patients. The disease was fistulising (58%), stenosing (16%) or inflammatory (24%). Immunosuppressors were prescribed in 92.59%. TNF antagonists were prescribed in CM for complex MAPs (52.7%); corticosteroid or corticosteroid resistance (3.7%); prevention of postoperative recurrence (15.8%) and moderate to severe MC refractory to standard medical treatment (27.9%). The respective rates of clinical response at week 12 (S12) at week 24 (S24) and at week 52 (S52) were 75.28%, 66.29%, 51.68%. A total of 24 adverse events were found. The failure rate was 21.46% and the optimization rates were 25%. An anti-TNF switch was performed in 13%and 5 patients were operated on the CD.

***Conclusion:*** This study confirms the effectiveness of anti-TNF in severe and refractory IBD, as well as its good short-term tolerance. The failure of anti-TNF is found in 21.46% of our patients. Anti-TNF alpha have a large contribution to the therapeutic arsenal of severe IBD which has decreased the use of surgery.

***Keywords:*** IBD, anti-TNFα, evolution

---

***PP-808***

## *A rare case of primary aorto-enteric fistula*

**Jonathan Crisostomo**

*Metropolitan Medical Center, Manila, Phillippines*

***Background/Aims:*** We report a case of a 40-year old, Filipino male with primary aorto-enteric fistula manifesting as upper gastrointestinal bleeding. Primary aortoenteric fistula (PAEF) is a rare clinical entity whose diagnosis can be difficult. This

condition, if left untreated has a mortality rate that approaches 100%. Limited local data exists for this case and knowledge on its clinical presentation and features can aid the physician in recognition and making a prompt diagnosis.

***Materials and Methods:*** A 40-year old male, Filipino, diabetic, chronic smoker was referred for further work-up. He presented with two separate episodes of massive upper gastrointestinal bleeding one week apart. He underwent esophagogastroduodenoscopy and colonoscopy with unremarkable findings. He came in ambulatory, with stable vital signs and essentially normal abdominal examination findings.

***Results:*** A repeat EGD was done which revealed an ovoid, slightly elevated lesion approximately 0.5 x 1cm was seen at the D2-D3 junction. On closer inspection, the lesion appeared smooth, with faint red spots with clear demarcation from the surrounding duodenal mucosa. CT angiogram of the whole abdomen showed saccular outpouching or aneurysmal formation measuring approximately 1.4 x 0.8 cm seen arising from the infrarenal segment of the abdominal aorta adjacent to the third portion of the duodenum with possible pinhole rupture and confined hematoma collection. The patient had another GI bleeding and subsequently underwent repair of aortic aneurysm and closure of aorto-enteric fistula.

***Conclusion:*** Diagnosis of PAEF requires a high index of suspicion. A negative initial endoscopy does not rule out its possibility especially in the setting of intermittent gastrointestinal bleeding and documented aortic aneurysm.

***Keywords:*** PAEF, aortoenteric fistula, gastrointestinal bleeding

---

***PP-809***

## *Role of cholangioscopy in evaluation of anastomotic biliary strictures of living donor liver transplant (LDLT)*

**Zubin Dev Sharma, Ashish Gandhi, Randhir Sud, Rajesh Puri**

*Medanta the Medicity Hospital, Medanta- The Medicity, Gurugram, Haryana, India*

***Background/Aims:*** Post liver transplant biliary strictures, both anastomotic and non-anastomotic, are a common and major problem. SPYGLASS system helps in morphological evaluation of biliary tract and its use has been found useful in DDLT patients. With this study, we aimed to assess the use of SPYGLASS for morphological evaluation of biliary strictures in LDLT patients and the relation of the morphological characteristics to the outcomes of endotherapy.

***Materials and Methods:*** Single center, prospective, observational study (n=24) treatment naïve patients with anastomotic biliary strictures. SOC with a cholangioscopy catheter and its probe was performed. Treatment outcomes recorded were success rate of ERCP, sessions taken for stricture resolution, no of stents placed, maximum number of 10 fr stents placed. The following characteristics of ASs and mucosa were evaluated: borders, ulcers, and concentricity versus eccentricity. Post stent removal, stricture was re-assessed and duration of stenting plus balloon dilation was until the stricture remodeling.

***Results:*** There were 14 patients with Cholangioscopic Pattern A and 10 patients with Pattern B. Mean time taken for development of stricture was 242.6 days (pattern A) v/s185 days (pattern B), for stricture remodeling was 206.2+/-86.6 days (pattern A) v/s334.40+/-127 days (pattern B) and average no. of sessions required was 2.3 (pattern A) v/s4.3 (pattern B).There was no statistical difference between the clinical parameters. The comparison between time taken for development of anastomotic stricture was not statistically significant (p=0.2) and for remodeling of stricture was statistically significant (p=0.011). Pattern B had more number of 10fr stents at any given point of time and also required more number of sessions for remodelling (p=0.01).

***Conclusion:*** Cholangioscopically, anastomotic strictures in LDLT patients can be divided into two patterns i.e. A and B. Pattern B strictures require longer duration of stenting, more number of stents and more number of sessions for remodeling.

***Keywords:*** Cholangioscopy, LDLT, anastomotic stricture

***PP-810***

## *Crohn's disease and autonomic nervous system (ANS)*

**Manal Mahmoudi[1], Mustapha El Bakkali[2], Halima Benjelloun[3], Nawal Lagdali[1], Asmaa Jniene[2], Camelia Berhili[1], Imane Benelbarhdadi[1], Taoufik Dakka[2], Hanan Rkain[2], Mohamed Borahma[1], Laila Errguig[2], Fatima Zahra Ajana[1], Souad Aboudrar[2]**

*[1]Department of Gastroenterology, Ibn-Sina University Hospital, Mohamed V University, Rabat, Morocco*
*[2]Team of Physiology of Exercise and Autonomic Nervous System (EPE-SNA), Faculty of Medicine and Pharmacy, Mohamed V University, Rabat, Morocco*
*[3]Cardiology Service A, Ibn Sina Rabat University Hospital, Rabat, Morocco*

***Background/Aims:*** Inflammatory involvement in Crohn's disease is transmural CD is transmural and can affect the entire intestinal wall, including the enteric nervous system which is part of the autonomic SN. The objective of this study was to study the autonomic profile in patients with remission-related CD.

***Materials and Methods:*** This is a prospective study that included a total of 12 patients with MC in remission. The study was conducted from October 2018. Patients underwent SNA exploration tests.

***Results:*** Preliminary results showed that 10 out of 12 patients (83%) were over 40 at the time of diagnosis, 6 out of 12 (or 50%) had ileocolic localization and 5 out of 12 (42%) had colonic localization. 10 out of 12 patients (83%) had a stenosing phenotype. SNA exploration tests showed sinus bradycardia in 2 patients (17%), masked hypertension in 3 patients (25%) and orthostatic tachycardia in 1 patient (8%). Univariate and multivariate analyzes showed a positive correlation between patient age and autonomic dysregulation regardless of the history of the disease. Patients who have started their history of CD beyond age 40 are at risk for autonomic dysregulation. Purely colonic or ileocolic localization are predictive factors of autonomic autonomic dysfunction in patients with remission-related CD.

***Conclusion:*** The autonomic cardiovascular tests have shown that the CD can be accompanied also some forms dysautonomous, such as masked HTA, sinus bradycardia and orthostatic tachycardia.

***Keywords:*** Crohn's disease, autonomic nervous system, remission

---

***PP-811***

## *Wernickes encephalopathy secondry to Crohn's disease; role of hyperbaric oxygen therapy: Let there be a light*

**Khaled Abdelwali, Anass Rahaoui, Nawal Lagdali, Camelia Berhili, Mohamed Borahma, Iman Benelbarhdadi, Fz Ajana**

*Chu Ibn Sina, Rabat, Morocco*

Wernicke encephalopathy is an acute neurological problem resulting from thiamine deficiency and manifesting with mental confusion, oculomotor dysfunction, and ataxia.in adults. risk factors include prolonged diarrhea, prolonged parental nutritiont, absorption disorders, cancer, and chemotherapy. Hyperbaric oxygen therapy (HBOT) has been approved for a variety of purposes including wound repair, anemia, thermal burns and osteomyelitis. In addition to these conditions, HBOT has been a great deal of interest in the use for ischemic and hypoxic brain injury. Its use enables the injured brain tissue to benefit from increased blood flow and oxygen delivery. This report describes a case of Wernickes encephalopathy developing in a 43-year-old female patient with a history of ileocolic Crohns diasease, benfited from right hemicolectomy in 2003, An 30-cm ileal segment was removed in 2016.She was on combined Azathioprine and Inleximab therapy since October 2018,admitted to our department for sub-acute intestinal obstruction and epigastric pain.one week after hospitalization she experienced memory changes, progressive headache and drowsiness, occulomotor disturbances and ataxia with a dropped Glasgow coma

score from 15 to 12. Brain CT angiography, lumber puncture and electroencephalogram were without any significance, blood values were within the reference range, ENT and ocular examination showed benign paroxysmal positional vertigo (BPPV), and multidirectional nystagmus respectively. Brain MRI confirmed the presence of Wernicks encephalopathy. Thiamine level was measured in the blood and it was very low, high dose injectable then oral thiamine support was given with unsatisfactory Clinical improvement. We proposed (HBOT) for correction of the neural tissue hypoxia, brain ischemia, necrosis and edema. The patient was subjected to 10 sessions of HBOT with follow up after each session. One month later she showed a clinical improvement concerning her neurological manifestations. Creberal MRI was repeated after 3 months and showed a radiological remission of the signs of Wernicke's encephalopathy. There is great interest in using hyperbaric oxygen (HBO) to treat neurological disease. The exquisite sensitivity of neural tissue to hypoxia makes increased oxygenation attractive as a therapy for disease processes that induce ischemia, edema Wernicke's encephalopathy is a picture of altered consciousness, ocular dysfunction, and ataxia resulting from thiamine deficiency. The clinical triad of the disease is present in only 16%of patients. Patients may sometimes present with less specific findings, such as mild confusion, headache, and abdominal disorder. Brain MR imaging must be performed in all cases of suspected Wernicke encephalopathy. Patients then must be started on empiric thiamine therapy. HBOT could be introduced in association with thiamine replacement therapy. Early diagnosis is important because findings can resolve with treatment. We observed complete radiological and clinical improvement in our case after thiamine replacement and HBOT

***Keywords:*** Wernicke encephalopathy, ileal bypass surgery, thiamine deficiency

***PP-812***

## *Factors associated with osteoporosis in patients with primary biliary cholangitis*

**Ferdaouss Lamarti[1], Amal Bouziane[2], Imane Ben Elbarhdadi[1], Sanae Lajouad[1], Soukaina Zertiti[1], Camelia Berhili[1], Nawal Lagdali[1], Mohamed Borahma[1], Fatimzahra Ajana[1]**

*[1] Department of Medicine, Hospital Ibn Sina, Mohammed V University, Rabat, Morocco*
*[2] Laboratory of Epidemiology and Clinical Research, Mohamed V University School of Dentistry, Rabat, Morocco*

***Background/Aims:*** Primary biliary cholangitis (PBC) is a chronic autoimmune hepatopathy leading to cholestasis then fibrosis and possibly cirrhosis. Patients with PBC have an increased risk of osteoporosis. The aim of this work is to study the factors associated with osteoporosis in patients with PBC compared to those with isolated osteopenia.

***Materials and Methods:*** This is a 22-year retrospective study of. All patients who did not receive bone mineral density (BMD) were excluded as well as those with normal BMD. Statistical analysis of the data was done using the SPSS software. Osteopenic and osteoporotic patients comparisons were performed using the chi-square test for qualitative variables and the Mann-Whitney test for quantitative variables. We considered a statistically significant variable if $p<0.05$.

***Results:*** Among 90 patients followed for PBC, 49 patients met our inclusion criteria. The sex ratio F/M was 23.5. The average age was 46.69±11.31 years old. 55.1% had osteopenia, 40.8% osteoporosis of the lumbar spine, 8.2% osteopenia, 18.4% osteoporosis of the femoral neck, 24.5% osteopenia and 10.2% osteoporosis of the hip. In total, 59.2% of patients had isolated osteopenia and 40.8% osteoporosis isolated or associated with osteopenia. The mean age of osteopenic patients was 43.41±9.77 and that of osteoporosis was 51.68±11.90 with a statistically significant difference (p=0.012). 23.9% of women were postmenopausal, 42.1% of whom had osteoporosis, while only 11.1% had osteopenia with a statistically significant difference (p=0.032). 63.2% of osteoporotic patients had a chronic liver disease (CLD) or cirrhosis and 36.8% had a normal liver versus 24% of osteopenic patients with CLD or cirrhosis and 76% with a normal liver with a difference statistically significant (p=0.025). 50% of osteoporotic patients had moderate fibrosis and 50% severe fibrosis, 44.8%of osteopenic had severe fibrosis and 55.2% had moderate fibrosis with a non-statistically significant difference (p=0.777). There is a statistically significant difference in the UK-score at 5 years, 10 years, and 15 years (p=0.03) between the osteopenic group (2.47 [1.80-6.61], [8.03], 90-20,43]) and (14,41 [10,70-34,64]) and the group of osteoporotic patients (8,36 [1,84-9,92]), (25,36 [6, 04-29.52]) and (41.97 [10.96-47.85]). After the statistical analyzes, we found no evidence of an effect of sex, degree of

fibrosis, decrease in vitamin D and calcium, response to Paris 2 and degree of cholestasis about osteoporosis. In order to have evidence to support this link, we need large multi-centric randomized clinical trials with high methodological quality.

***Conclusion:*** The advanced age, the menopause, the existence of a CLD or cirrhosis clinically and the elevation of the UK score are factors associated with the development of the osteoporosis in the patients having a PBC. The degree of fibrosis was not associated with osteoporosis in our study.

***Keywords:*** Primiary biliary cholangitis, osteoporosis, osteopenia

---

***PP-813***

## *Becoming of patients with ulcerative colitis treated by salicylic acid derivatives*

**Asmae Sair, Nawal Lagdali, Camelia Berhili, Imane Ben El Barhdadi, Mohamed Borahma, Fatima Zahra Ajana**

*Department of Medicine, Hospital Ibn Sina, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** Ulcerative colitis (UC) is a chronic, idiopathic inflammatory bowel disease that affects the colonic mucosa and is characterised by alternating periods of activity and remission. Treatment for induction and maintenance of remission relies on salicylic acid derivatives (SAD), corticoids, thiopurins and, more recently, biotherapy. Our study aims to define the outcome and future of patients suffering from UC and treated by SAD.

***Materials and Methods:*** This is a descriptive retrospective study that includes 502 patients with UC, assigned to SAD, listed in our department follow-up register, over a period of 29 years [1990-2019].

***Results:*** The average age was 34.7+/-12.6 years with extremes of 11 and 75 years, and female predominance at 51.2%, i.e. a sex ratio of H/F to 0.9. 37.3% of patients had a severe relapse controlled by general corticotherapy, 67.8% of them were maintained by SAD, 14.2% were assigned to thiopurines. 62.3% of patients showed mild to moderate relapse treated with SAD of which 60.4% had the oral presentation, 25.3% local and 13.9% associated oral and local presentation. 9.4% of the patients underwent surgery, 17.5% of whom were operated straightaway just after a sever relapse, 56.6% had a subtotal colectomy, 40% a total colectomy, and 3.3% had total total coloprotectomy. The analysis of the final results showed an improvement in 78.1% of our patients of which 13% withdrew the treatment, while 13.5% were treated with immunosuppressants, 2.1% were assigned to anti-TNF and 6.3% underwent surgery for either failure or non-response to treatment.

***Conclusion:*** Salicylic acid derivatives remain the reference and the first-line treatment for induction and maintenance of remission in mild to moderate UC.

***Keywords:*** Ulcerative colitis, salicylic acid derivatives

---

***PP-814***

## *Endoscopic biliary drainage in bilio-pancreatic cancers: Results and associated factors about 170 cases*

**Asmae Sair, Hassan Seddik, Hanae Boutallaka, Samir Mrabti, Sara Sentissi, Reda Berraida, Ilham Elkoti, Ahmed Benkirane**

*Department of Gastroenterology, Mohammed V Military Teaching Hospital, Rabat, Morocco*

***Background/Aims:*** Endoscopic biliary drainage has continued to be strenuous and has a significant role in the palliative treatment of bile duct malignant stenosis. Thus, by restoring the bile flow, drainage contributes significantly to the comfort of the

patient. The objective of our study is to provide retrospective analysis of the results of this technique, as well as the various factors associated with its failure or success.

***Materials and Methods:*** From January 2008 to March 2019, 170 patients with neoplastic stenosis underwent endoscopic digestive drainage. Patients were divided into 3 groups: group "A" for patients with cholongiocarcinoma, group "B" for patients with pancreatic cancer, group "C" for patients with stone cancer. Success is clinically assessed by the decline of the icterus and biologically by the lowering of bilirubin rates.

***Results:*** The mean age is 63.5±11.4 years with extremes of 31 and 93 years and a sex ratio M/W of 1.4. Overall success is 82.4%, with 17.6% failure (n=30). The comparative study of the results in the 3 groups showed a success rate of 86.6% in Group B, followed by Group C at 80.8% and Group A at 76.4%. In a multivariate analysis and by adjusting the parameters studied, including sex, age, imaging, metastases, and endoscopic dilation prior to the implantation of the prosthesis. Only the presence of metastases and endoscopic dilation changed the success rates. Endoscopic dilation of stenosis prior to prosthesis implantation multiply by 8 the success rate [OR=8 ; p<0.001]. While metastases reduces it by 85% [OR=0.12 ; p<0.001].

***Conclusion:*** Our study showed that metastases appears to be significantly associated with the failure of endoscopic biliary drainage and endoscopic dilation prior to the prosthesis implantation is associated with its success.

***Keywords:*** Endoscopic biliary drainage, bilio-pancreatic cancers

---

***PP-815***

## *Portal thrombosis in normal liver: A university series; etiological profile*

**Ferdaouss Lamarti, Imane Ben Elbarhdadi, Hanae Boutallaka, Soukaina Zertiti, Nawal Lagdali, Camelia Berhili, Mohamed Borahma, Fatimzahra Ajana**

*Department of Medicine, Hospital Ibn Sina, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** Thrombosis of the portal vein (PVT) is defined as partial or complete occlusion of the lumen of the portal vein and/or its tributaries by a thrombus. The objective of our study is to specify the etiological profile of portal hypertension (PHT) by infra-hepatic block on healthy liver.

***Materials and Methods:*** This is a descriptive and analytical retrospective study, spanning a period of 28 years from January 1991 to May 2019, including 192 patients followed for PHT by infrahepatic block on PV, the collection of data and statistical analysis were performed by SPSS software version 20.0.

***Results:*** The average age of our patients was 40.08±16 years old with extremes ranging from 6 to 70 years. The sex ratio M/F was 0.45. 6% of patients had a history of splenectomy prior to the diagnosis of PHT. Regarding functional signs, 60.5% of patients were hospitalized for upper gastrointestinal bleeding, of which 25.6% had haematemesis, 6.2% of melena and 28.7% a combination of both, 24% of patients presented with nonspecific abdominal pain, 5.4% for anemic syndrome, 3.9% for jaundice, 2.3% for rectal bleeding and 3.9% were asymptomatic. The clinical examination was normal in 11.6%of cases, found ascites in 18.6% and splenomegaly in 85.3%. All patients had undergone an abdominal ultrasound examination demonstrating a PVT in 42.6%, which was partial in 24%, complete in 6.2% and extended to the spleno-mesaric venous trunk in 12.4%. A portal cavernoma was found in 54.3% of patients, of whom 68% had a portal biliopathy on MRCP performed systematically. Etiologic assessment of thrombosis was performed in all patients, the latter was idiopathic in 45.6% of cases, related to a deficiency of coagulation inhibitors in 32.6% (protein C deficiency in 5.4% of patients, protein S deficiency in 10.1%, combined protein C and S deficiency in 14%, antithrombin III deficiency in 2.3% and factor V leiden mutation in 0.8% of cases), myeloproliferative disease in 7% (idiopathic myelofibrosis in 5 cases, essential thrombocythaemia in 6 cases, chronic myeloid leukemia in 2 cases and polycythemia vera in 1 case), to a neoplasm in 4.7% (cholangiocarcinoma, mesenteric desmoide tumor, ganglionic lymphoma, poorly differentiated pancreatic mass, gastric adenocarcinoma and hepatocellular carcinoma in 1 case for each one), abdominal surgery in 3.9% (splenectomy in 9 cases, cholecystectomy in 3 cases, gastrectomy in one

patient and peritonitis in one case), celiac disease in 3%, pregnancy in 1.6%, an antiphosholipid antibody syndrome or prolonged oral contraception in 0.8% for each. 14% of patients with PVT were on anticoagulant therapy because of the acute or symptomatic nature of thrombosis and when the thrombosis was related to myeloproliferative disorder. PVT regressed in 70% in anticoagulated patients, and in 4% in non-anticoagulated patients, stabilized in 30% in anticoagulated and in 96% in non-anticoagulated patients.

***Conclusion:*** Despite a complete etiological assessment, 45.6% of PVT remain idiopathic.When the cause is found, it is in 32.6% of the cases of a deficit in coagulation inhibitors mainly combined deficit in protein C and S.

***Keywords:*** Portal thrombosis, normal liver, coagulation inhibitors

---

***PP-816***

## *Results of patients undergoing colonoscopy for fecal occult blood test positivity applied in colorectal cancer screening program: A pilot study in Alsancak State Hospital*

**Sinan Binboğa**

*Alsancak Nevvar Salih İşgören State Hospital, İzmir, Turkey*

***Background/Aims:*** Colorectal cancers (CRC) are a major health problem all over the world and the fourth most common cause of cancer death. It ranks third in males and fourth in females (1). According to the American Cancer Society, CRC is the second leading cause of cancer death in developed countries. Currently, approximately 60-70% of colon cancers are diagnosed at an advanced stage in unscanned populations. However, screening with an annual fecal occult blood (FOB) test in individuals is a factor that decreases mortality and increases 5-year survival in addition to early diagnosis. In our country, screening tests conducted by the T.C. Ministry of Health are used to prevent colorectal cancer and to detect it at an early stage. For theearly diagnosis, fecal, colonoscopic, radiological and blood tests are the most frequently used in recent years. All individuals over the age of 50 who applied to the family health center were screened for FOB test. In this study, we aimed to evaluate the results of colonoscopy performed by the regional state hospital to the patients whose positive results were obtained in the screening results performed.

***Materials and Methods:*** Patients who were referred to Alsancak Nevvar Salih Isgoren State Hospital between January 2016-2019 for colonoscopy because of positivity of FOB test were included. The three-year results were compared considering the benign and malignant causes. The demographic data, colonoscopy findings and the pathology results after colonoscopy were evaluated retrospectively.

***Results:*** A total of 2620 patients were included in the study. 1716 (65.4%) of the patients were male and 904 (34.6%) were female. The mean age was 62.7 years. Endoscopic diagnoses; normal colonoscopic findings were 1460 (55.7%), polyp was 955 (36.4%), perianal disease was 225 (8.5%), diverticulum was 386 (14.7%), colon cancer was 15 (0.57%) malignancy suspicious cytology was 15, dysplasia was 30 (0.82%) and melanosis coli was 5 (0.19%) patients. 742 (77.6%) were tubular adenomas, 9 were (10%) hyperplastic polyps and 48 (5%) were tubulovillous adenomas of the patients with endoscopic polyps. Of the patients with colon cancer, 10 (66.6%) were adenocarcinomas and 5 (33.3%) were stony ring cell carcinomas. Early colon carcinoma was detected in the pathology of 29 (1.1%) patients with polyps detected by colonoscopy.

***Conclusion:*** According to the National Cancer Institute, the five-year survival rate for CRC patients between 2007-2013 is only 64.9%. Approximately 135430 patients representing 8% of all new cancer cases will be diagnosed with colon cancer. Screening of colorectal cancers increased the detection of cancers to 52.1% in 2008 and 62.6% in 2015. Although colonoscopy is the gold standard method for these screening methods, colonoscopy after occult blood screening in the stool may help us to select the patient group. In our evaluation, colonoscopy results were found to be normal in approximately half of the patients presenting with fecal occult blood test positivity. Colonoscopy is a unique endoscopic procedure which is widely used in diagnosis and treatment of large bowel diseases and is accepted as the gold standard for imaging of large intestines.

Anorectal diseases were the most common in patients with positive colonoscopic findings. It should be used as a preliminary examination because of it is a cheap and easy-to-use method for detecting colon cancer and precursor lesions because they have the same rates of positivity with the literature.

***Keywords:*** Colonoscopy, colorectal cancer, fecal occult blood test

---

***PP-817***

## *Scheduled suspension of antiviral therapy in selected cases of chronic B hepatitis: High sustained response and HBsAg levels reduction*

**Ana L. Santos, Hélder Cardoso, Guilherme Macedo**

*Centro Hospitalar E Universitário De São João, Porto, Portugal*

***Background/Aims:*** EASL guidelines consider antiviral therapy suspension in selected cases of chronic B hepatitis, under rigorous monitoring. In this study, we intend to evaluate the clinical course of chronic B hepatitis patients after scheduled suspension of therapy.

***Materials and Methods:*** Retrospective, monocentric and longitudinal study, from a prospectively registered cohort. Adults patients with diagnosis of chronic B hepatitis, without advanced fibrosis, with at least 4 years of undetectable viremia were included. After informed consent antiviral therapy was suspended. The cases that didn't presented criteria for retreatment (EASL guidelines) were considered as sustained response. Demographic characterization of population, evaluation of sustained response and HBsAg levels.

***Results:*** A total of 26 patients were included (62% of woman, with mean age of 59±13 years). Antiviral drugs were tenofovir in 58% of cases, entecavir in 35% and lamivudine in 8%. The mean time of HBV undetectably until antivirals suspension was 8.8±2.5 years. A sustained response was observed in 54% of patients, during a mean follow-up of 24±9 months, after treatment suspension. It wasnt possible to identify predictive response factors. Most retreatments (67%) were due to increasing viremia and ALT; two patients developed jaundice, with complete reversion. The most used therapy was tenofovir (67%) and viral suppression was observed with a mean time of 6±3 months. Although HBsAg levels were previously stable, a significant reduction in HBsAg after treatment suspension was observed [0.6log10UI/mL (0.19-1.5)], independently of sustained response ($p<0.001$).

***Conclusion:*** In this study, a high rate of sustained response was observed, which may be related to a long duration of viral suppression; however, two cases of jaundice were observed, highlighting the relevance of a rigorous surveillance. A significant decrease in HBsAg levels suggests that there may be a benefit, in therapeutic suspension, even in patients without sustained response; these facts should be assessed with a longer follow-up period.

***Keywords:*** Hepatitis B infection, long duration of viral suppression, suspension of antiviral therapy

---

***PP-818***

## *Spontaneous bacterial peritonitis: Will the diagnostic follow-up paracentesis be essential in approaching these patients?*

**Ana L. Santos, Rosa Coelho, Marco Silva, Hélder Cardoso, Guilherme Macedo**

*Centro Hospitalar E Universitário De São João, Porto, Portugal*

***Background/Aims:*** Recent studies suggest that follow-up paracentesis, in cases of spontaneous bacterial peritonitis (SBP) should only be performed if there is a clinical and/or analytic worsening. Our aims were to evaluate which patients with SBP

benefit from the diagnostic follow-up paracentesis, according to clinical and analytical predictive factors of an inadequate response at the third day of treatment.

***Materials and Methods:*** Retrospective study conducted in a tertiary center, included the patients with SBP between January 2011 and June 2018. Clinical/analytical data was obtained at baseline and at the third day of antibiotic therapy. An adequate response to therapy, at the third day, was defined by a decrease of ≥25%in neutrophil count of the ascitic fluid.

***Results:*** We included 103 cases of SBP with a mean age of 61±11 years. 30.1% of cases the patients were under antibiotic prophylaxis for SBP. At the third day, 30.1% had an inadequate response to antibiotic therapy. At admission, the presence of diabetes mellitus (p=0.034), a higher serum neutrophils count (p=0.043), a lesser level of serum total proteins (p=0.040) and a positive culture in ascitic fluid (p<0.001) were related to inadequate response. At day 3, a higher level of serum urea (p=0.018), creatinine (p=0.030), CRP (p=0.001), a higher count of serum leucocytes (p=0.001) and neutrophyles (p=0.001), the presence of fever (p=0.047) and abdominal pain (p<0.001) were associated to absence of response, too. In the multivariate analysis, diabetes mellitus (OR=5.33; 95% CI:1.24-22.96), positive ascitic fluid culture at admission (OR=15.66; 95% CI:2.41-101.94), abdominal pain at day 3 (OR=3.94; 95% CI:0.94-16.45; p<0.06) and CRP at day 3 (OR=1.02; 95% CI:1.00-1.03) were independently and significantly associated to inadequate response at the third day of empiric therapy. The predictive model presented good accuracy [AUROC of 0.85 (p<0.001) (Figure 1)] – a cutoff of 0.055 had a sensitivity, specificity, positive predictive value, and negative predictive value for absence of response to antibiotic of 100%, 35%, 42%, and 100%, respectively. With this model cutoff, 24%of repeated paracentesis could be precluded in our population sample.

***Conclusion:*** These results evidence that, in approach of SBP, the performance of follow-up paracentesis, three days after the beginning of empiric therapy, should be individualized, according the conjugation of clinical and analytic variables. With our model a considerable number of unnecessary procedures may be avoided.

***Keywords:*** Spontaneous bacterial peritonitis, paracentesis, prognostic factors

---

***PP-819***

## *Peroral stricturotomy and myotomy for treatment of esophageal stricture*

**Abdullah Özgür Yeniova[1], In Kyung Yoo[2], Joo Young Cho[2]**

*[1]Division of Gastroenterology, Department of Internal Medicine, Tokat Gaziosmanpaşa University School of Medicine, Tokat, Turkey*
*[2]Division of Gastroenterology, Department of Internal Medicine, Cha Bundang Medical Center, Gyeonggi-do, South Korea*

67 years old female patient presented with caustic alkali ingestion. She was admitted with dyspagia. Her esophagography revealed stenosis in the middle of the esophagus (Figure 1). The patient received stricturotomy with APC multiple times, steroid injection and balloon dilatation. Because of the persistent symptoms, it was decided to perform peroral endoscopic stricturotomy and myotomy (POES-M). First stricturotomy was performed, and then, myotomy was performed after stricturotomy between the 30th and 35th cm of the esophagus (Figure 2). After the myotomy, a fully covered esophageal stent was inserted to cover the open POES-M site. There was no complication after the procedure. The control endoscopy revealed healing of the myotomy segment (Figure 3) Despite preventive public health practices, corrosive ingestion still continues to be a devastating health problem. The most common and late sequela of corrosive ingestion is stricture formation. Treatment of esophageal strictures comprises early intralesional or systemic steroid injections or early administration of antibiotics, early esophageal stent insertion, endoscopic dilatation. Thus, as various interventions have not reached a definitive solution, new methods must be applied. Peroral endoscopic myotomy is considered to be the main treatment strategy for achalasia. Open POEM has been described as a new technique for complicated achalasia cases. Authors have demonstrated a technique that did not create submucosal tunneling and aimed to overcome fibrosis and stricture due to the complication of the first procedures. Endoscopic stricturotomy has been described as a method for endoscopic treatment of inflammatory bowel disease. Strictures of the affected segment of the gastrointestinal tract is incised with an endoscopic surgery knife. We involved two endoscopic techniques simultaneously. We described this technique as POES-M. Stricturotomy of the narrowing segment supported

by myotomy of the same segment because long-standing stricture and low-grade inflammation may cause thickening of the muscle of the damaged segment. Furthermore, myotomy may prevent future strictures. Intraluminal stenting will also provide more rapid healing of the incised size. This patient had no complaints, but further studies must be carried out to implement this technique in clinical practice.

***Keywords:*** Esophagus, stricture, POEM

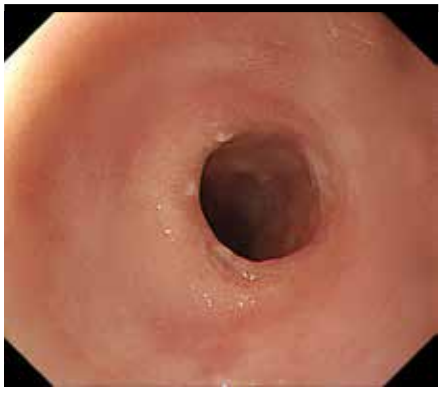


**Figure 1 .** First endoscopy in which lumen was narrowed by stricture, and endoscopy could not pass through.

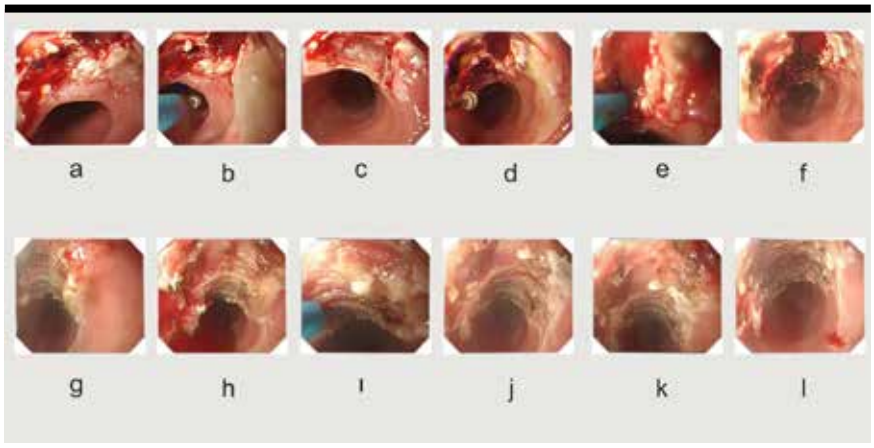



**Figure 2. a-l.** POES-M procedure a-f: stricturotomy procedure; g-l: myotomy procedure.

**Figure 3.** Endoscopy after procedure.

***PP-820***

## *A study on outcome of hepatic fibrosis by transient elastography in chronic hepatitis B patients on anti-viral therapy in a tertiary care centre of Eastern India*

**Avick Nag, Sanjay Mandal, Saubhik Ghosh**

*Medical College and Hospital, Kolkata, India*

***Background/Aims:*** Hepatitis B infection is a global public health problem. Chronic hepatitis B infection leads to complications like cirrhosis, liver failure and hepatocellular carcinoma. Long-term suppression of Hepatitis B virus with antiviral therapy significantly improve the stages of fibrosis in these patients. Hence, monitoring the stage of liver fibrosis in

Chronic Hepatitis B patients undergoing anti-viral therapy is important to evaluate the effectiveness of the therapy and to predict the prognosis. Liver stiffness measurement using transient elastography (Fibroscan) has been validated as an accurate tool in assessing significant liver fibrosis and cirrhosis. Hence our aim of study is to see the outcome of Hepatic Fibrosis by non-invasive measurement in Chronic Hepatitis B patients after 6 months of oral anti-viral therapy in a Tertiary Care Centre of Eastern India.

***Materials and Methods:*** 70 New Chronic Hepatitis B patients are included in A Prospective Hospital based study and at the end of 6 months 53 patients were analysed.

***Results:*** Our study showed a significant statistical reduction in Liver Fibrosis as well as improvement of serological and biochemical parameters in Chronic Hepatitis B patients.

***Conclusion:*** There is liver fibrosis reversal in Chronic Hepatitis B patients after 6 months of anti-viral therapy and Fibroscan helps not only as a marker for initiation of treatment depending on the degree of fibrosis but also indicates the response or progression of the disease.

***Keywords:*** Chronic hepatitis B, transient elastography, fibroscan

***PP-821***

## *Caspase-cleaved cytokeratin18 (CK18-ASP396) fragment M30- the promises and challenges of a potential biomarker for hepatic fibrosis in HBV related compensated chronic liver disease*

**Kazi Zakir Hossain[1], Mamun Al Mahtab[2]**

*[1]Shaheed Suhrawardy Medical College Hospital, Dhaka, Bangladesh*
*[2]Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh*

***Background/Aims:*** Chronic hepatitis B virus (HBV) infection remains a serious public health problem worldwide. Cytokeratin (CK)18 is an intermediary filament protein, expressed in hepatocytes. M30 epitope of cytokeratin18 (CK18-M30) is involved at different levels in apoptotic pathways. In this study, we aimed to investigate whether serum CK-18 fragment M30 level significantly correlate with the histological severity (activity and fibrosis) in patients with chronic HBV infection.

***Materials and Methods:*** A total of 40 patients with CHB were enrolled in this study between January to August 2016. All CHB cases underwent liver biopsy for METAVIR score. Serum CK-18 M30 were measured by ELISA in all patients. This was a cross sectional observational study.

***Results:*** Of the total 40 patients, all were HBsAg positive, 24 (60.0%) were HBeAg negative and 16 (40%) were HBeAg positive. Serum M30 CK-18 levels reflected phase of disease, being significantly higher in both HBeAg positive and HBeAg negative hepatitis B in comparison to HBsAg carrier groups. Results showed that serum concentrations of CK18 were significantly increased in a stepwise fashion from F1 to F3. A significant correlation was found between ALT, AST level and the METAVIR histological activity scores (p=0.036 and 0.016). We found highly significant positive correlation between the stages of fibrosis (F1 to F3) and Serum CK-18 fragment M30 level (r=0.839; p=0.0157) but no correlation between the histological activity score and Serum CK-18 fragment M30 level (r=-0.073; p=0.357). Importantly, serum M30 CK-18 levels were able to discriminate patients with mild versus moderate-advanced fibrosis (AUC: 0.84).

***Conclusion:*** This study indicates there is significant positive correlation between the stages of fibrosis (F1 to F3) and Serum CK-18 fragment M30 level in patients with chronic hepatitis B virus infection. So CK-18 fragment M30 can be used as a potential noninvasive biomarker of fibrosis as well as a marker of phase of persistent HBV infection.

***Keywords:*** Chronic hepatitis B, CK-18 fragment M30, liver biopsy, fibrosis

***PP-822***

## *Identification of genes and pathways regulated with larazotide acetate to protect intestinal barrier during anoxia/reoxygenation injury by RNA-SEQ analysis*

**Younggeon Jin[1], Carson Popper[1], Jay Madan[2], Sandeep Laumas[2], B. Radha Krishnan[2], Anthony Blikslager[1]**

*[1]Comparative Medicine Institute, North Carolina State University, Raleigh, NC, USA*
*[2]Innovate Biopharmaceuticals Inc., Raleigh, NC, USA*

***Background/Aims:*** Tight junctions located at the apical lateral region of adjacent intestinal epithelial cells are largely responsible for regulating the intestinal mucosal barrier. Disruption of the intestinal barrier has been observed in various digestive diseases such as celiac disease, ischemia/reperfusion injury and inflammatory bowel disease. Larazotide acetate (LA) is a synthetic, eight amino acid peptide that is known to act as a tight junction regulator capable of closing 'leaky' interepithelial junctions. Presently, LA is being studied in Phase 3 clinical trials for treatment of celiac disease. However, the mechanism by which LA regulates intestinal barrier is not fully understood. Therefore, we hypothesized that LA would protect the tight junction barrier during anoxia/reoxygenation (A/R) injury associated with upregulation of tight junctional signaling pathways.

***Materials and Methods:*** C2BBe1 (Caco-2 brush border-expressing) monolayers were treated apically with LA and were subjected to anoxia for 2h followed by reoxygenation with 21% $O_2$. Barrier function was assessed by measuring transepithelial electrical resistance (TEER) and next-generation RNA sequencing was employed to assess cellular regulatory pathways.

***Results:*** Pre-treatment of A/R-injured C2BBe1cells with 10mM LA significantly increased TEER as compared to untreated A/R injured cells. The tight junction protein occludin and ZO-1 were disrupted during A/R injury. Alternatively, treatment with 10mM LA prevented disruption of tight junction proteins during A/R injury. Gene ontology annotation revealed a number of critical signaling pathways that were differentially expressed in cells treated with LA, including biological processes involved in establishment of cell polarity, molecular functions that regulate junctional structures, and cellular components associated with epithelial repair (cell leading edge, ruffle, and apical junctional complex). Furthermore, Ras/Rho GTPase binding and protein serine/threonine kinase activity was differentially expressed in cells treated with LA. Additionally, Kyoto Encyclopedia of Genes and Genomes pathway enrichment analysis revealed enrichment of target genes for 'cell cycle,' 'adherens junction' and 'Wnt signaling pathways.

***Conclusion:*** The results of the present study provide novel insights in the molecular mechanism of action of LA on the protection of TJ integrity in A/R injury and potentially more broadly in important digestive diseases such as celiac disease.

***Keywords:*** Larazotide acetate, anoxia/reoxygenation injury, Intestinal barrier function, tight junction, RNA-seq analysis

---

***PP-823***

## *Comparative evaluation of various scoring systems to predict prognosis in patients with acute biliary pancreatitis*

**Gökhan Tazegül, Mete Akın**

*Department of Gastroenterology and Hepatology, Akdeniz University School of Medicine, Antalya, Turkey*

***Background/Aims:*** Acute pancreatitis, a heterogeneous group of disease, may show a mild or severe course. There are multiple scoring systems to define severity, with not a single ideal one. Scoring systems focus on development of severe pancreatitis, pancreatic necrosis, organ failure or death. Data about concepts such as development of comorbid cholangitis, need for narcotic analgesic and duration of hospital stay are limited. In this study, we aimed to evaluate the compliance of clinical and

laboratory findings and prognostic scores with revised Atlanta Criteria in patients presenting with acute biliary pancreatitis and to reveal the relationship of all these factors with other prognostic factors.

***Materials and Methods:*** In this study, 66 patients with acute biliary pancreatitis were evaluated. Clinical and laboratory data were retrospectively obtained from patient files. Patients were evaluated according to the revised Atlanta classification. Ranson, Glasgow-Imrie, BISAP, HAPS APACHE and SOFA scores were evaluated. Acute phase responses (sedimentation, procalcitonin, CRP and neutrophil-lymphocyte ratio) were measured at admission and 48-hours.

***Results:*** Revised Atlanta classification was moderately correlated with the BISAP and Glasgow-Imrie scores. HAPS and BISAP scores correlated well with each other, while BISAP and Glasgow-Imrie scores were moderately correlated. Patients with HAPS, BISAP or Glasgow-Imrie positive scores, cholangitis and use of broad-spectrum antibiotics were more frequent, as in patients with moderate or severe pancreatitis. As a result, duration of hospitalization was longer and need for narcotic analgesics was higher. Additionally, 48-hour neutrophil lymphocyte ratio was found to be correlated with the severity of pancreatitis as well as cholangitis development, narcotic analgesic requirement and hospital stay.

***Conclusion:*** There may not be a single ideal scoring system in predicting the severity of acute biliary pancreatitis. Further studies aiming to show the relationship between other prognostic factors, such as the development of cholangitis and duration of hospitalization other than the severity of pancreatitis, are required.

***Keywords:*** Pancreatitis, biliary pancreatitis, prognostic scores

---

***PP-824***

## *Assessment of endoscope reprocessing at World Gastroenterology Organisation (WGO) training centers using adenosine triphosphate (ATP) testing*

**Kavel Visrodia[1], Herbert Burgos[2], Elly Ogutu[3], Jioji Malani[4], Dianne Jones[5], Melissa Jennings[6], Catherine Conway[7], Desmond Leddin[8], Ryan Lennon[9], Mark Topazian[9]**

*[1]Columbia University Medical Center, New York, New York, USA*
*[2]San Jose, Costa Rica*
*[3]Nairobi, Kenya*
*[4]Suva, Fiji*
*[5]Logan Hospital, Queensland, Australia*
*[6]Royal Perth Hospital, Perth, Australia*
*[7]Gastroenterology Nurses College Australia (genca), NSW, Australia*
*[8]Dalhousie University, Halifax, Canada*
*[9]Mayo Clinic, Rochester, Minnesota, USA*

***Background/Aims:*** Endoscope disinfection is necessary for safe endoscopy practice. ATP values <200 RLUs (relative light units) after manual cleaning of endoscopes are associated with subsequent adequate disinfection. We evaluated endoscope reprocessing at WGO training centers (TCs) using ATP testing, before and after optimization of reprocessing methods.

***Materials and Methods:*** This is an interim report of an ongoing study. At each participating site, study staff tested rinsates from biopsy channels of endoscopes for ATP at four phases of routine reprocessing: (1) before manual cleaning, (2) after manual cleaning, (3) after high-level disinfection (HLD), and (4) immediately after overnight storage. After observation and baseline testing, guideline-based improvements in disinfection practices were implemented in consensus with local stakeholders. Follow-up ATP testing was then performed. ATP levels were compared pre- and post-intervention using the Pearson chi-squared and Kruskal-Wallis tests.

***Results:*** WGO TCs in San Jose, Suva and Nairobi participated. Overall 166 endoscope reprocessing cycles were studied (77 pre- and 88 post-intervention). Pre-intervention, median ATP values were: pre-manual cleaning 3436 RLUs, post-manual cleaning 76 RLUs (79.5%<200 RLUs), post-HLD 55 RLUs, and post-overnight storage 209 RLUs. Changes in reprocessing practices were implemented, including bedside pre-cleaning, frequent exchange of manual cleaning solution, longer rinsing times, and longer drying times with vertical storage after HLD. Post-intervention, median ATP values were: pre-manual cleaning 1180 RLUs (p<0.001 for comparison with pre-intervention values), post-manual cleaning 64 RLUs (p=0.93) (80.7%<200 RLUs, p=0.85), post-HLD (60 RLUs, p=0.66), and after overnight storage ATP 106 RLUs (p=0.41). In a multivariable model including scope identification number (ID), reprocessing technician ID, and performance of endoscopic biopsies or therapy prior to reprocessing, only scope ID was significantly associated with post-manual cleaning ATP levels (p=0.004).

***Conclusion:*** Point-of-care ATP testing to evaluate endoscope reprocessing is feasible and acceptable to TC staff. ATP values >200 RLU were found post-manual cleaning in 20%of reprocessing cycles despite optimization of reprocessing practices. ATP testing is a training and quality improvement tool that may identify endoscopes requiring additional reprocessing or further evaluation.

***Keywords:*** Endoscope reprocessing, disinfection, adenosine triphosphate, quality improvement

---

***PP-825***

## *Polymorphisms in TLR1 and TLR2 are associated with predisposition to helicobacter pylori infection in Turkish population*

**Sevgi Kalkanlı Taş[1], Alpaslan Tanoğlu[2], Resul Kahraman[2], Duygu Kırkık[1], Eylem Çağıltay[1]**

*[1]Department of Immunology, University of Health Sciences, İstanbul, Turkey*
*[2]Department of Gastroenterology, University of Health Sciences, İstanbul, Turkey*

***Background/Aims:*** Toll like receptors (TLRs) are significant for innate immune system which symbolize a family of Pattern Recognition Receptors (PRRs). Previous studies have endeavored defining the relationship between TLRs and *Helicobacter pylori* (*Hp*) in various population. We aimed to find out associations between *rs4833095* polymorphism of Toll-like receptor1 (TLR1) and *rs3804099* polymorphism of Toll-like receptor2 (TLR2) with Hp infection in Turkish population.

***Materials and Methods:*** 100 consequent Hp infected patients who underwent esophagogastroduodenoscopy (EGD) because of dyspepsia and age and sex matched 100 Hp negative person who experienced EGD because of dyspepsia were included in this study. Genomic DNA was isolated and genotyping of *rs4833095* polymorphism in TLR1 and *rs3804099* polymorphism in TLR2 were done in 200 participants by Real-Time PCR. Statistical analysis was performed by SPSS.

***Results:*** *rs4833095* polymorphism in TLR1 C allele and *rs3804099* polymorphism in TLR2 C allele frequency were higher in the Hp infected participants [OR=0.8680; 95%CI: 0.5-1.6, OR: 0.8319; 95%CI:0.5-1.5 respectively]. C allele was susceptible for both TLR1 and TLR2 polymorphisms in the Turkish population.

***Conclusion:*** To the best of our knowledge, this is the first study which investigated relationship between TLRs and Hp infection and Hp related pathologies such as gastritis. In other words, *rs4833095* polymorphism of TLR1 and *rs3804099* polymorphism of TLR2 have genetic predisposition to *H.pylori* susceptibility and gastric pathogenesis. Understanding of single nucleotide polymorphism (SNP) may explain higher rates of Hp infection and Hp related pathologies in some different populations.

***Keywords:*** Helicobacter pylori, single nucleotide polymorphism, TLR1, TLR2

***PP-826***

## *The usefulness of fully covered self-expandable metal stent (FcSEMS) for the treatment of biliary stones located above the biliary strictures (rescue bridge therapy with FcSEMS)*

**Ahmet Tarık Eminler[1], Aydin Şeref Köksal[1], Bilal Toka[1], Mukaddes Tozlu[1], Mustafa İhsan Uslan[1], Erkan Parlak[2]**

*[1]Department of Gastroenterology, Sakarya University School of Medicine, Sakarya, Turkey*
*[2]Department of Gastroenterology, Hacettepe University School of Medicine, Ankara, Turkey*

***Background/Aims:*** The standard method for endoscopic treatment of biliary stones is balloon and/or basket removal after endoscopic sphincterotomy. Advanced endoscopic methods (temporary plastic stent insertion, large balloon dilatation, mechanical/electrohydraulic/laser lithotripsy, etc.) are used for stone removal-expanding or shrinking the stone- in some difficult cases (large stone, proximal stenosis, intrahepatic stone). In this study, we aimed to present our experience with the use of full-covered metal stents (fcSEMS) and subsequent stone extraction in patients with biliary stones above the biliary strictures.

***Materials and Methods:*** The patients who had intrahepatic and/or choledochal stones above the the biliary strictures and who underwent rescue bridge therapy with fcSEMS for stone extraction since 2015 September were evaluated. 8-10 mm fcSEMS were placed for healing the stricture into the bile duct. Plastic stents, nasobiliary drainage or external drainage procedures were performed for the drainage of other branch (s) in patients with intrahepatic fcSEMS placement. The fcSEMS was removed when the complete improvement was seen on fluoroscopy and stones are tried to extract.

***Results:*** A total of 23 patients (13 males, 56.5%) with a median age of 53 (27-82) were examined. Two patients had stenosis in two separate segments. Therefore, a total of 25 procedures were evaluated. Fully covered self-expandable metal stent lengths were between 4 and 10 cm. One patient was followed up with fcSEMS and the remaining 22 patients had a median 27 (5-90) days with stented. Fully covered self-expandable metal stents was removed and also all stones are successfully extracted from the patients. No complication was seen. No recurrence stone formation was detected in the median follow-up of 12 (6-44) months.

***Conclusion:*** Rescue bridge therapy with fcSEMS in the endoscopic treatment of intrahepatic and/or bile duct stones located above the bile duct stenosis is an effective and safe method.

***Keywords:*** Biliary stones, biliary stricture, ERCP, fcSEMS

---

***PP-827***

## *Etiologies of organic esophageal Stenosis and their management: Experience of a Moroccan University Department*

**Zertiti Soukaina, Ben El Barhdadi Imane, Berhili Camelia, Lagdali Nawal, Mohammed Borahma, Ajana Fatima-zahra**

*Department of Medicine, Hospital Ibn Sina, Mohammed V University, Rabat, Morocco*

***Background/Aims:*** Oesophageal stenosis is a pathology frequently encountered in endoscopy. They present themselves clinically with progressive dysphagia with a long-term negative impact on the quality of life. The main therapeutic way to overcome dysphagia is endoscopic dilatation. The aim of our work is to identify the main etiologies of organic oesophageal stenosis in our context and to report our experience of the therapeutic management of these stenoses.

***Materials and Methods:*** This is a monocentric retrospective and descriptive study of all cases of organic oesophageal stenosis, dilated, collected in our department, over a period of 29 years from 1990 to 2019. Functional oesophageal strictures, mainly achalasia, are excluded. that all motor disorders of the esophagus.

***Results:*** The total number of patients followed in our formation for organic esophageal stenosis who had at least one dilatation is 554. The mean age of our patients was 46.2 years±13.7 years. The sex ratio F/H was 0.7. The main reason for consultation was dysphagia in 96.2% (n=533). Other clinical signs reported in association with dysphagia were odynophagia in 5.2% of cases (n=29), and upper gastrointestinal bleeding in 2.16% of cases (n=12). The median time from onset of symptoms to first dilatation was 747 days, about 2 years [1 day, 10 years].The etiologies were the following: peptic stenosis in 38.62% of patients (n=214), Plumer-Vinson syndrome in 26.7% of patients (n=148), caustic stenosis in 11.2% of cases (n=62), post surgical in 11.01% of cases (n=61), tumor stenosis in 9.56% of patients (n=53) and post-radiation stenosis in 1.62% of patients (n=61). The rare etiologies were 3 cases of iatrogenic stenosis by gastric tube, mycotic in 2 patients, oesophageal scleroderma and stenosing oesophageal involvement of Crohn's disease. All our patients benefited from endoscopic treatment of the stenosis. The dilatation was mainly performed using Savary Gilliard candles in 91.8% with diameters ranging from 12 to 15mm, the endoscope in 7.02% of cases and balloon in 1.08% of cases. The immediate success of the procedure was noted in 95.2% of patients. The average duration of follow-up was 34.5 months, or about 3 years [0, 26 years]. The recidivism rate was 38.9% (n=216) with an average recurrence time of 20±7.2 months. The median number of dilatation sessions was 3.2 [2; 4] for all types of stenosis combined. We used metal esophageal prostheses in 3.42% of the patients while 6.1% of the patients were operated. Complications of dilatation were very rare; we had only 2 cases of perforation.

***Conclusion:*** The etiologies of organic stenosis were dominated in our study by peptic stenosis followed by Plumer-Vinson syndrome. The treatment was based primarily on endoscopic dilatation with candles with an immediate success rate of 95.2%.

***Keywords:*** Esophageal stenosis**,** endoscopic dilatation, peptic stenosis

---

***PP-828***

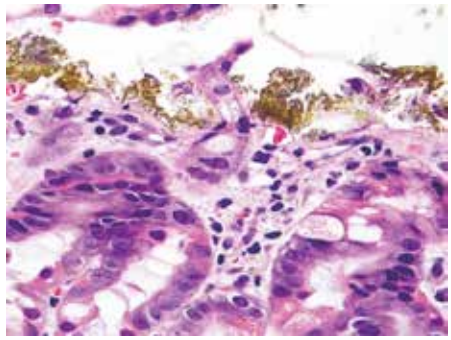
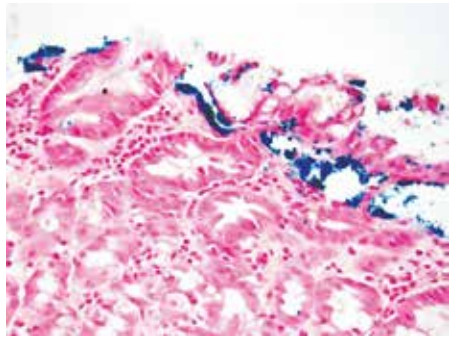
## *Iron pill-induced gastropathy*

**Arcelia Guerson Gil, Nicole Panarelli, Lawrence Brandt**

*Montefiore Medical Center, Bronx, NY, USA*

Oral iron supplementation is the most common treatment for iron deficiency anemia (IDA), usually administered in either tablet or pill form. Normally considered a safe and effective method for treating IDA, major complications arise rarely as in our patient. This case of iron pill-induced gastropathy merits attention because of its rarity. An 80-year-old woman with a history of hypertension and unexplained IDA on oral iron supplements presented with intermittent epigastric abdominal pain, early satiety and black-colored stools for 4 months. On physical examination, the patient appeared well with normal vital signs. Lungs were clear and heart sounds were normal, without murmurs or gallops. Abdominal examination showed normoactive bowel sounds with mild tenderness to palpation in the epigastric region; no bruit was heard. Hematologic testing showed microcytic hypochromic anemia with a hemoglobin level of 6.9 mg/Dl. EGD identified an erythematous and friable fold with a yellowish hue and brownish stippling along the greater curvature (Figure 1). No obvious source of bleeding was found. The area was biopsied. Histopathology of the friable fold in the greater curvature revealed oxyntic mucosa with reactive gastropathy and extracellular iron deposits on the mucosal surface (Figure 2). Prussian blue histochemical stain confirmed its iron content (Figure 3). Oral supplementation with iron pills or capsules is the most common treatment for IDA. In most cases, minor side effects occur such as dark stools, constipation, and nausea. Rarely, as in our patient, therapeutic levels of iron tablet ingestion may cause gastropathy. Gastropathy, is a general term connoting abnormality, although without the inflammation that typifies gastritis. Iron depositions along the GI tract have been found in approximately 1% of all biopsies taken from endoscopic examinations. The mechanism of pill-induced gastropathy is likely mediated by oxygen free radical production resulting in damage to the gastric mucosa. Liquid oral iron supplementation does not produce the same detrimental effects of mucosal erosion and should be considered as a therapeutic option over pills or tablets for those suffering from pill-induced iron gastropathy. After EGD, our patient's treatment was switched to liquid iron supplementation and she rapidly had symptomatic improvement. We present this case to inform the clinician about iron pill-gastropathy entity and to make the endoscopist aware of its appearance.

***Keywords:*** Anemia, EGD, gastropathy

***PP-829***

## *First case report of absences of extrabiliary system and 2 cases of gall bladder agenesis*

**Elssayed Osman, Mohanned Omer, Abdelrahman Babekir**

*Shendi University, Shendi, Sudan*

Gallbladder agenesis is a rare congenital anomaly, with a reported incidence of less than 0.5%. We present here three case reports. Three adults female 38 and 45 and 32 years were admitted to Hospital with biliary colics and dyspepsia. Two patients were operated laparoscopicly for vesicular lithiasis by using conventional method. The absence of gallbladder was detected in the both cases. The 3rd patient underwent open exploration due to persistent biliary colics, gall bladder agenesis was found and the duodenum was attach directly with liver and abscesce of extra hepatic biliary system.

***Keywords:*** Gall bladder, biliary system

***PP-830***

## *Evaluation of GLP-2 receptor expression in gastrointestinal neuroendocrine tumors*

**Şule Namlı Koç**

*Memorial Ataşehir Hospital, İstanbul, Turkey*

***Background/Aims:*** The objective is to evalaute the relation between GEP-NET and Glukagon Like Peptid-2 (GLP-2) & GLP-2 R.

***Materials and Methods:*** The patients, who were pathologically diagnosed with GEP-NET between 2006-2011 were included in the study. There were 47 patients (27 F, 20 M, avarage age: 54±15.5) in the study. There were also 46 control group patients (25 F, 21 M, avarage age: 57.5±14.8). Pathological tissue blocks prepared on poly-L-lysine microscope slides were stained by GLP-2 Receptor Antibody (1:100-1:200, 1 mg/mL) immunohistochemical stain.

***Results:*** GLP-2R positivity of colon neuroendocrine tumor (NET) group was 30% (4/13) and of colon control group was 100%. GLP-2R positivity of pancreas NET group was 25% (3/12) while it was 100% in pancreas control group. The comparison of colon NET and control group showed significant difference (p: 0.003). The comparison of pancreas NET and control group also showed statistically significant difference (p<0.001). The comparison of gastric NET with the control yielded comparable results (p:0.22).

***Conclusion:*** Neuroendocrine tumors (NETs) consist of a heterogeneous group of malignancies with slow growth rates and they are rare tumors. Although there is a hypothesis that carcinoid tumors arising from intestinal endocrine cells

might also exhibit GLP-2R immunopositivity, and it can be used in diagnosis and treatment of these tumors; this study didn't show an obvious GLP2 R expression in GEP-NET's. We concluded that GLP2R cannot be as useful as somatostatin receptors in diagnosis and treatment of these tumors. More studies are needed on this subject with different methods.

***Keywords:*** GLP-2R, gastrointestinal neuroendocrine tumors (GEP-NET)

***PP-831***

## *Transepithelial tissue permeability in esophageal epithelium decreases in patients with gastroesophageal reflux disease following anti-reflux surgery*

**Pelin Ergun, Sezgi Kipcak, Serhat Bor**

*Ege Reflux Study Group, Department of Gastroenterology, Ege University Medical Faculty, İzmir, Turkey*

***Background/Aims:*** Gastroesophageal reflux disease (GERD) is a chronic disorder and typical symptoms recur six months after the discontinuation of medical therapy in 75-80% of patients. Anti-reflux surgery is a successful alternative in some cases and success rate is high. It is also a good model to evaluate the recovery of the epithelium with decreasing the contact time of noxious gastric refluxate including acid, pepsin, bile acids and pancreatic juice. We aimed to evaluate the electrophysiological recovery in esophageal epithelium of the cases before and after laparoscopic anti-reflux surgery and compare with healthy controls.

***Materials and Methods:*** Esophageal biopsies from 15 patients with GERD and predominantly typical symptoms included (10 men; 43, 7±12, 6 years). All patients were evaluated with GERD and quality of life questionnaires, high resolution esophageal manometry, 24 h impedance-pH monitoring, upper gastrointestinal endoscopy with distal esophageal biopsies. 3-4 months after laparoscopic anti-reflux surgery upper gastrointestinal endoscopy repeated in asymptomatic patients and esophageal biopsies were taken. 23 healthy controls (7 men; 41,9±10,8 years) were also included. The transepithelial resistance (TEER) and tissue permeability via fluorescein diffusion within 2 hours were recorded.

***Results:*** TEER of esophageal epithelium was significantly higher after the surgery (p=0.0002) and healthy controls (HC) (p=0.0009). There was no difference between pre-operative patients and HC in TEER. Mucosal permeability measured with fluorescein diffusion of post-operative measurements was significantly decreased than pre-op patients (p=0.038). There was no significant difference neither pre-operative nor post-operative measurements than HC *(Table)*.

***Conclusion:*** The TEER and permeability results implicate that laparoscopic anti-reflux surgery showed an efficient recovery within esophageal epithelium in patients with GERD. One possible explanation of the higher tissue resistance following the surgery than HC might be explained with the continue "silent" reflux in HC.

***Keywords:*** Anti-reflux surgery, ussing chamber, permeability, tissue resistance

| | TEER (Ohms) | Flourescein permeability (pmols) |
|---|---|---|
| Healthy controls | 166.8±46.2 | 36.9±13.5 |
| Pre-op patients | 151.0±51.6 | 48.6±27.8 |
| Post-op patients | 214.8±61.0* | 29.5±17.3** |

*p<0.001 vs. pre-op patients and vs. healthy controls, **p<0.05 vs. pre-op patients

***PP-832***

## *The evolution of gastrooesophageal varices in non-cirrhotic portal hypertension by infra-hepatic block*

**Ferdaouss Lamarti, Imane Ben Elbarhdadi, Soukaina Zertiti, Hanae Boutallaka, Camelia Berhili, Nawal Lagdali, Mohamed Borahma, Fatimzahra Ajana**

Department of Medicine, Hospital Ibn Sina, Mohammed V University, Rabat, Morocco

***Background/Aims:*** Portal vein thrombosis (PVT) is defined as a partial or complete occlusion of portal vein and/or its tributaries by a thrombus. It exposes to portal hypertension (PHT) by infrahepatic block and consequently to upper digestive hemorrhage, usually due to oesogastric varices rupture. The aim of this study is to specify the evolution of oesogastric varices and thus haemorrhagic recurrence risk in patients with PHT by PVT.

***Materials and Methods:*** It is a restrospective analytical descriptive study from January 1991 to May 2019, including 192 patients followed for PHT due to PVT without liver disease. The collection of data and statistical analysis were performed by SPSS software version 20.0.

***Results:*** The mean age of patients was 40.08±16 years with extremes ranging from 6 to 70 years. The sex ratio M/F was 0.45. 60.5%of patients were hospitalized for upper gastrointestinal bleeding, 24% of patients presented with nonspecific abdominal pain, 5.4% for anemic syndrome, 3.9% for jaundice, 2.3% for rectal bleeding and 3.9% were asymptomatic. The clinical examination was normal in 11.6% of cases, found ascites in 18.6% and splenomegaly in 85.3%. In all patients, upper GI endoscopy was performed. Hypertensive gastropathy was found in 27.9%, grade I oesophageal varices (OV) in 7.8%, grade II in 26.4%, grade III in 48.8% and gastric varices were noted in 22.5%. These varices were the site of red signs in 27.1%. All patients had abdominal doppler ultrasonography showing a PVT in 42.6%. A portal cavernoma was found in 54.3%. The ligation of OV (OR=0.28, p=0.03 CI=0.084-0.92) was made in 41.1%, the average number of sessions of ligation was 2.64 +/- 1.2 resulting in eradication of OV (OR=0.73, p=0.01 CI=0.25-0.92) in 99%. Sclerotherapy was done in 12% of cases, the average number of sessions of sclerotherapy was 4, resulting in eradication of OV in 90% of cases. 43% of the patients had a PVT and only 14% were put on anticoagulant treatment. On the evolutionary level, in case of PVT, no haemorrhagic recurrence was noted in 85.2%, and in case of portal cavernoma no recurrence was noted in 79.7%. PVT was reduced in 70% in anticoagulated patients and stabilized in 30%, reduced in 4% in non-anticoagulated and stabilized in 96%. With a mean follow-up of 9 years, no haemorrhagic recurrence was noted in 80% of cases, rebleeding was noted in 17% and death in 3% of cases.

***Conclusion:*** In multivariate analysis, ligation and eradication of VO are the 2 statistically significant protective factors against bleeding recurrence. The presence of thrombosis does not interfere with the progression of OV in patients with PHT infra-hepatic block, indeed the majority of patients in our series did not present rebleeding after eradication of OV.

***Keywords:*** Portal vein thrombosis, oesogastric varices, ligature and eradication

---

***PP-833***

## *Preliminary discussion of the clinical significance for lactase deficiency and self-reported lactose intolerance symptoms*

**Chen Zhang, Zhongwen Zheng, Weihong Sha**

*Guangdong Provincial Geriatrics Institute, Guangzhou, China*

***Background/Aims:*** Lactase Deficiency (LD) is a common phenomenon around the world especially in Asian populations which is commonly diagnosed by lactose hydrogen breath test (LHBT). Some people have self-reported lactose intolerance (LI) symptoms

including abdominal pain, bloating, flatulence and diarrhea after lactose consumption which are not always consistent to LHBT results. However, the clinical significance of LD and self-reported LI symptoms are still not clear. This study aimed to analyze whether the severity degree of LD and the self-reported LI symptoms presented the clinical significance.

***Materials and Methods:*** 84 outpatients from the past three years were enrolled in this study. The clinical features of these subjects including age, sex, body mass index (BMI) were recorded. All the subjects accepted LHBT, gastrointestinal endoscope, abdominal computed tomography scan, allergen tests and routine tests (such as blood routine test, liver and renal function test et.). According to the LHBT results, people with LD were graded as 'negative LD(NLD), mild LD(MILD), moderate LD (MOLD)and severe LD (SLD)'. For further analysis, subjects were divided into two groups: self-reported LI symptoms positive and symptoms negative. The analysis was performed between clinical parameters among each group

***Results:*** No difference was found on sex, average age, BMI, the rate of allergen, the rate of self-reported LI symptoms and other clinical parameters among four groups (NLD, MILD, MOLD, SLD). Compared with self-reported LI symptoms negative group, the positive group presented lower trends on nutrition index including BMI (p=0.019<0.05, 95% CI,-4.445~-.403), Serum Total protein(p=0.033<0.05, 95% CI,-7.097~-.295), Serum Albumin(p=0.041<0.05, 95% CI,-4.701~-.098).

***Conclusion:*** The degree of LD plays a limited role in guiding clinical treatment. LD positive and the degree of the LD seem to have no negative effect on nutrition level. However, patients who have self-reported LI symptoms seem to have lower nutrition level as these symptoms may lead to the reduction of intake of diary food

***Keywords:*** Lactase deficiency, self-reported lactose intolerance symptoms, lactose hydrogen breath test, clinical significance, nutrition, degree

---

***PP-834***

## *Percutaneous trans-hepatic biliary drainage: A descriptive cross sectional study from a tertiary care hospital in Pakistan*

**Om Parkash, Mahrukh Ali, Anjiya Sulaiman, Mian Shah Yousaf**

*Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Percutaneous transhepatic biliary drainage (PTBD) is an image-guided procedure involving insertion of a small plastic tube through skin into the biliary system and drainage of obstructed system. This is reserved as a second line therapy after endoscopic drainage fails. The aim of this study is to determine the major indications, complications and outcomes of PTBD.

***Materials and Methods:*** A retrospective review of patients who underwent PTBD from January 2015 to December 2018 was performed. Patient data was extracted from the hospital's electronic database and case records.

***Results:*** Data from 210 patients showed 100 (47.6%) had no known co-morbids, 43 (20.5%), more than one, diabetes mellitus (26, 12.4%) and hypertension (22, 10.5%). Cholangiocarcinoma 57 (27.1%), pancreatic carcinoma 53 (25.2%), metastatic carcinoma 29 (13.8%), CBD stones 28 (13.3%), CBD leak 14 (6.7%) and stricture 18 (8.6%). The major indications included hemodynamic instability 75 (35.7%), failed ERCP 73 (34.8%), high obstruction 59 (28.1%). No complications were seen in 151 (71.9%). Infection was the most common complication 18 (8.6%), catheter/stent occlusion or displacement 14 (6.7%), bleeding 6 (2.9%), and prolonged hospital stay 21 (10%). 179 (85.2%) patients showed clinical improvement, 21 (10%) died, 5 (2.3%) were died due to PTBD and PTBD failed in 10 (4.8%) patients. Re-admission within 6 months in 47 (22.4%). Rendezvous ERCP was performed for 12 (5.7%) patients.

***Conclusion:*** In our study PTBD was found to be a safe and useful approach to relieve obstruction in unstable patients and in ERCP failure in a setting where other modalities like Endoscopic ultrasound (EUS) is not available.

***Keywords:*** PTBD, study, Pakistan

***PP-835***

## *Treating compensated liver cirrhosis due to chronic HCV infection genotype 1b with Sofosbuvir+Ledipasvir±Ribavirin- results from a cohort of 139 patients*

**Carmen Preda[1], Liliana Gheorghe[1], Doina Istratescu[2], Cristian Baicus[1], Mircea Manuc[1], Andreea Chifulescu[2], Speranta Iacob[1], Teodora Manuc[2], Letitia Tugui[2], Mircea Diculescu[1], Laura Iliescu[1]**

*[1]"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania*
*[2]Department of Gastroenterology and Hepatology, Clinic Fundeni Institute, Bucharest, Romania*

***Background/Aims:*** Clinical trials and real life data reported a very high rate of HCV- SVR in difficult to treat cases such as compensated liver cirrhosis reaching approximately 97% in intention-to-treat. The aim of this study is to report efficacy and safety of Sofosbuvir+Ledipasvir±Ribavirin in 139 subjects with compensated liver cirrhosis.

***Materials and Methods:*** All patients treated with Sofosbuvir+Ledipasvir±Ribavirin in Fundeni Clinical Institute between September 2017 and July 2018 were included, all with genotype 1b. Inclusion criteria were compensated liver cirrhosis (diagnosed by laboratory tests and/or imaging tests) and detectable HCV RNA in serum (by quantitative PCR assays). Efficacy was assessed by the percentage of patients achieving SVR 12 weeks post-treatment (SVR12). Only serious adverse events leading to discontinuation of therapy were reported. 113 individuals received Sofosbuvir+Ledipasvir+Ribavirin for 12 weeks while 26 were treated with Sofosbuvir+Ledipasvir for 24 weeks. All of them were evaluated monthly during antiviral therapy and at 12 weeks after the end of therapy.

***Results:*** 1 patient was lost during follow-up and 2 stopped the therapy due to cardiovascular adverse events (1 myocardial infarction). This cohort had 57.6% females, a mean age of 61 years (35÷82) and 21% were pre-treated with interferon. 57.6% of patients had other co-morbidities, the prevalence of type 2 diabetes was 27%, 1.4% of patients were HBV coinfected and 10%were with treated hepatocellular carcinoma. 43% of patients had Child Pugh A6. The median MELD score was 9.82 (6.82 ÷ 17.74). SVR by intention to treat was reported in 122/139 (87.8%), and by protocol was 87.9% (127/136). MELD score at EOT increased to 11.68 (6.82÷17.74) and decreased to 9.68 (6÷19.84). At SVR, 60% of cases maintained their liver function (also the Child Pugh score) while 32% had improved liver function and 8% had worsened. Predictive factors of SVR were: female sex (p<0.001), advanced age (p=0.001), absence of ascites at therapy initiation (p=0.018), no history of variceal bleeding (p=0.05).

***Conclusion:*** Sofosbuvir+Ledipasvir±Ribavirin had a lower SVR in our cohort than data previously reported: 87.8%. This therapy proved to be well tolerated in compensated liver cirrhosis: only 1.4%serious adverse events leading to discontinuation of antiviral therapy. However, 8% of patients breached to decompensated cirrhosis. Predictors of SVR were female sex, advanced age, lack of signs of severe portal hypertension (ascites or variceal bleeding).

***Keywords:*** Sofosbuvir, Ledipasvir, Ribavirin, liver cirrhosis, hepatitis C virus

---

***PP-836***

## *Hepcidin levels and clinical importance in celiac disease patients*

**Serkan Calp[1], Havva Solak Özşeker[2], Burak Ekrem Citil[3], Burak Özşeker[4]**

*[1]Department of Internal Medicine, Muğla Sıtkı Koçman University School of Medicine, Muğla, Turkey*
*[2]Department of Pathology, Muğla Sıtkı Koçman University Training Research Hospital, Muğla, Turkey*
*[3]Department of Microbiology, Muğla Sıtkı Koçman University School of Medicine, Muğla, Turkey*
*[4]Mugla Division of Gastroentero-Hepatology, Department of Internal Medicine, Muğla Sıtkı Koçman University School of Medicine, Muğla, Turkey*

***Background/Aims:*** Anemia is a frequent complication of Celiac Disease (CD). Hepcidin plays a key role in iron metabolism and is closely associated with serum iron and inflammation. The aim of this study was to determine the role of hepcidin level in iron deficiency ethiopathogenesis, to determine the relationship between hepcidin level and disease activity and to determine the clinical significance of hepcidin level in CD.

***Materials and Methods:*** This is a cross-sectional case-control study involving patients with CD and healthy controls. A total of 76 subjects, 32 celiac patients and 44 healthy controls were included in the study. Patients with CD were classified as group 1 and healthy controls as group 2. Groups were compared in terms of age, sex, height, weight, body mass index, leukocyte, CRP, erythrocyte sedimentation rate (ESR), hemoglobin, serum iron, total iron binding capacity (TIBC), ferritin, AST, ALT, albumin, vitamin b12, folate and hepcidin values. Correlation analysis was performed to evaluate the relationship between hepcidin and other parameters. The relationship between hepcidin and Marsh score was evaluated.

***Results:*** Hepcidin, ferritin, iron and TIBC and AST values were higher in Group 1 than group 2 ($p<0.05$). In all cases, there was a positive correlation between hepcidin and hemoglobin, serum iron, ferritin, ESR and albumin and a negative correlation between TIBC ($p<0.05$). In group 1, there was a positive correlation between hepcidin and hemoglobin, iron, ferritin and a negative correlation between TIBC. In terms of hepcidin, there was no significant correlation between group 1 and group 2 patients with normal ferritin ($p>0.05$). There was no significant correlation between hepcidin and Marsh score ($p> 0.05$).

***Conclusion:*** As a result of our analysis based on the modified Marsh score, we found that the regulation of hepcidin in celiac patients was not mainly affected by intestinal inflammation and damage. We found that iron stores were mostly involved in the regulation of hepcidin. We concluded that there was no relationship between serum hepcidin levels and disease activity.

***Keywords:*** Celiac Disease, hepcidin, ferritin, inflammation, Marsh score.

***PP-837***

## *The early strength training program improves muscle strength and functional capacity in liver recipients*

**Tuba Ergene[1], Şule Namlı Koç[1], Didem Karadibak[2]**

*[1]Memorial Ataşehir Hospital, İstanbul, Turkey*
*[2]Department of Cardiopulmonary Physiotherapy, Dokuz Eylül University School of Physical Therapy and Rehabilitation, İzmir, Turkey*

***Background/Aims:*** Transplant candidates have advanced chronic diseases accompanying symptoms and complications such as the decrease in skeletal muscle mass and functional performance which reduce patients' quality of life. Exercise training has several potential health benefits for solid organ transplant recipients. We investigated the impact of early muscle strength training in liver recipients on skeletal muscle function and functional capacity.

***Materials and Methods:*** The total of 29 liver transplant candidates (69%male, 52.8±12.4 years old) which randomly assigned to groups that received strength training (n=14) or standard physiotherapy program (controls, n=15) in İstanbul from September 2018 through March 2019 enrolled in this cross-sectional study. A rehabilitation program was carried out, consisting of preoperative patient education, positioning, respiratory physiotherapy, active extremity exercises and mobilization program, posttransplant immunosuppressive treatment, routine postoperative care and follow-up for both groups. Exercise group subjects were received supervised sessions of muscle strengthening via elastic bands (5 days/week, 8 weeks); Modified Borg Scale and 10 maximum repetition(10RM) with the progressive increase was used to rate perceived loading during the resistance exercise. Quadriceps muscle strength (measured by hand-held dynamometer), 6-minute walk distance (6MWD), sit to stand test scores were evaluated preoperatively and at postoperative $8^{th}$ week.

***Results:*** Model for End-Stage Liver Disease (MELD) scores (18±5,9), quadriceps strength values, 6MWD and sit to stand test scores were similar between groups preoperatively. Mean differences in quadriceps muscle strength, sit to stand test scores

and 6MWD were significantly improved in the exercise group compared with controls (p=0.001, p=0.001 and p=0.002 respectively). No adverse events occurred during the exercise sessions and mobilization.

***Conclusion:*** Muscle strength training applied early after liver transplantation improved muscle function and functional capacity. A specific physiotherapeutic protocol including early strength training seems to be feasible and can contribute to the functional performance among liver recipients. Those physiotherapy and rehabilitation approaches may be able to effectively reach a larger number of patients; further studies are needed.

***Keywords:*** Muscle strength, functional capacity, liver transplantation

---

***PP-838***

## *Hereditary angioedema: An unusual cause of vomiting: A case report*

**Sara Ghani, Nadia Benzzoubeir, Tarik Gharbi, Farida Souidine, Laaziza Ouazzani, Ikram Errabih**

*Hepato-gastroenterology and Proctology, Medicine B Department, Ibn Sina University Hospital, Rabat-Morocco*

***Introduction:*** The first clinical description of angioedema was made by Von Quincke (German physician) in 1882, and the term hereditary angioneurotic edemawas coined in 1888 by Sir William Osler. Hereditary angioedema (HAE) is an autosomal dominant disease, resulting from a heterozygous deficiency of C1-inhibitor, and patients with HAE have intermittent cutaneous or mucosal edema, a consequence of poorly controlled local production of bradykinin. These oedemas usually evolve in a few hours and persist for a few days.

***Case:*** A 39-year-old patient, followed in endocrinology since the age of 20 for hypogonadotropic hypogonadism treated by Androtardyl: 1 injection / 3 weeks, consults for recurrent abdominal pain and chronic vomiting (the patient had three episodes of vomiting monthly), with episodes of edema of the face and hands. This symptomatology began in childhood. His father died of laryngeal edema, two sisters and one brother also have the same symptomatology. Digestive explorations are strictly normal; including many upper endoscopy and abdominal ultrasound and CT scan, the complement C4 compound was however collapsed (0.03g / dl-Nl 0.15 to 0.57) as well as the concentration of C1-inhibitor (C1-INH) measured by a Two-fold functional test is less than 10% (Nl> 50%). The diagnosis of hereditary angioedema type I, characterized by a genetic deficiency in C1-inhibitor causing the excessive generation of bradykinin is retained. A substitution treatment with tranexamic acid (anti-fibrinolytic) at a dose of 1 to 1.5g / day was started, with resolution of symptoms.

***Conclusion:*** HAE is a rare disease that must be known and evoked in front of unexplained vomiting and chronic abdominal pain with a face edema, because of its potential severity and the effective therapies available. Although their clinical presentation is generally common to all types of AE, HAE have some digestive particularities not to be ignored, which should lead to the dosage of the inhibitor in order to establish adequate management. Currently there are several national and international reference centers, allowing a network in all territories to facilitate the diagnosis and treatment.

***Keywords:*** Hereditary angioedema, vomiting, C1inhibitor, prophylaxis

---

***PP-839***

## *Endoscopic retrograde cholangiopancreatography (ERCP) findings in patients with chronic pancreatitis and pancreatic duct stone*

**Mahmoodreza Khoonsari[1], Masoud Reza Sohrabi[2], Farhad Zamani[3], Amirhossein Faraji[1], Mehdi Nikkhah[1], Behdad Behnam[4]**

*[1]Assistant Professor of Gastroenterology, Gastrointestinal and Liver Disease Research Center, Iran University of Medical Sciences, Tehran, Iran*

[2]Gastrointestinal and Liver Disease Research Center, Iran University of Medical Sciences, Tehran, Iran
[3]Professor of Gastroenterology, Gastrointestinal and Liver Disease Research Center, Iran University of Medical Sciences, Tehran, Iran.
[4]Resident of Internal Medicine, Iran University of Medical Sciences, Tehran, Iran

***Background/Aims:*** Endoscopic retrograde cholangiopancreatography (ERCP) has known as a modality of choice for the treatment of pancreatic duct (PD) stone in patients with chronic pancreatitis (CP). Although ERCP has recommended for radiolucent PD stones smaller than 5 millimeters, the management differs case by case due to PD variations and stone characteristics. This study aims to assess ERCP findings in CP patients with PD stone.

***Materials and Methods:*** In this retrospective cross sectional study, 22 patients with definite diagnosis of chronic pancreatitis were enrolled. Patients with history of any other pancreatic/ biliary disorders were excluded. All patients undertaken endoscopic ultrasonography (EUS) before ERCP to confirm PD stone. ERCP findings including strictures, skipped lesions and type of procedures were recorded by an expert gastroenterologist for each patient. All statistical analysis was performed using SPSS version 20.

***Results:*** The mean age was 47.45±8.03 years and most of the patients were male 22 (68.2%). All of the patients had complaints of abdominal pain on admission, 6 (27.27%) of them had icter and 2 (9.09%) presented with cholangitis. The mean size of PD stone was 3.18± 1.25 millimeters. Common bile duct stone was seen in 7 (31.81%) patients, simultaneously. PD stent (10 Fr) was successfully placed in all patients. No perforation was occurred and only two (9.09%) patients developed mild pancreatitis. The mean of post-ERCP admission days was 1.36± 1.09, and 13 (59.09%) of the patients discharged in their first days of admission. Only three (13.63%) of them hospitalized for more than two days.

***Conclusion:*** The results of this study showed ERCP as a safe and effective therapeutic approach for PD stone management with minimal complication and short period of hospitalization. However, further study is needed to compare ERCP outcomes versus surgery in management patients with PD stone.

***Keywords:*** Endoscopic retrograde cholangiopancreatography, chronic pancreatitis, stone

***PP-840***

## *Comparing dual therapies with quadruple therapy in the eradication of helicobacter pylori*

**Elif Gram Bacaksız, Gözde Derviş Hakim, Coşkun Yıldız, Harun Akar**

*Department of Gastroenterology, İzmir University of Health Sciences Tepecik Research and Training Hospital, İzmir, Turkey*

***Background/Aims:*** In our study, we aimed to retrospectively compare the eradication rates of dual therapies with standard triple therapy with bismuth salt in helicobacter pylori(Hp) treatment.

***Materials and Methods:*** In our study, between 1 January 2011-1 June 2018 Tepecik Training and Reseach Hospital, Gastroenterology Clinic patients who were over 18 age and had detected Hp with histopathologically. 175 patients were included the study and they were randomized for 4 groups of treatment protocols. 50 patients received standart triple therapy added bismuth (amoxicillin 1 g 2x1 + clarithromycin 500 mg 2x1 + ppi 2x1 + bismuth subcitrate 300 mg 2x2), 50 patients received esomeprazole 40 mg 2x1 + amoxicillin 500 mg 4x1, 50 patients received rabeprazole 20 mg 2x1 + amoxicillin 500 mg 4x1 and 25 patients received pantoprazole 40 mg 2x1 + amoxicillin 500 mg 4x1 therapy. The eradication controls performed by histologically after 6-8 weeks after the end of these treatments. SPSS 22.0 package program was used for statistical analysis.

***Results:*** There was no significant difference for age and sex disturbances between the groups. When the eradication rates of Hp positive patients according to different treatment options were examined, 78% (n=39) of the patients who received triple + bismuth therapy showed improvement after treatment; 66% (n=33) of the rabeprazole group, 58% (n=29) and 44% (n=11) of Pantoprazole group had Hp negative results after treatment.

***Conclusion:*** Triple + bismuth therapy was associated with a higher eradication rate of Hp compared with dual therapies in our study. Eradication rates were rather low in four groups.

***Keywords:*** Helicobacter pylori (Hp), proton pump inhibitor (ppi), eradication treatments

---

***PP-841***

## *How can we raise awareness of the hepatitis C virus?*

**Gözde Derviş Hakim[1], Pinar Çerçi Şamlıoğlu[2], Umutcan Türk[3], Esra Özdağ[4]**

*[1]Department of Gastroenterology, İzmir University of Health Sciences Tepecik Research and Training Hospital, İzmir, Turkey,*
*[2]Department of Microbiology, İzmir University of Health Sciences Tepecik Research and Training Hospital, İzmir, Turkey,*
*[3] Department of Internal Medicine, İzmir University of Health Sciences Tepecik Research and Training Hospital, İzmir, Turkey,*
*[4]Department of Pharmacy, İzmir University of Health Sciences Tepecik Research and Training Hospital, İzmir, Turkey,*

***Background/Aims:*** The aim of our study is to identify patients who are positive with Anti Hepatitis C virus (HCV) antibody and HCVRNA, also reveal patience without diagnosis and increase awareness of HCV within doctors and patients.

***Materials and Methods:*** Microbiology database of Tepecik Research and Training Hospital is scanned for Anti HCV and HCVRNA tested patients from January 2013 until December 2018. Patients are indexed according to date of entry and duplicate values are removed manually. After indexing data is grouped according to clinics, which requested the analysis. Finally medulla system (an integrated database from social security system) is scanned for patients treatment data.

***Results:*** 3,154 patients identified as AntiHCV positive out of 173,566 patients who has been requested to test for AntiHCV. Also 1,618 patients identified as HCVRNA positive out of 7,106 patients who has been requested to test for HCVRNA. 3,154 patients goes down to 1,245 unique patients for AntiHCV positive and 1,618 patients goes down to 863 unique patients for HCVRNA positive after removing re-occurring test requests over the years for the same patient. After cross-checking data for AntiHCV positive and HCVRNA positive, 343 unique patients identified as ANTİHCV and HCVRNA positive at the same time. Those 343 unique patients are treated according to our scans in medulla system. 897 unique patients are identified only positive for AntiHCV and 519 unique patients are identified only positive for HCVRNA. Those HCVRNA positive unique patients are not treated according to our scans in medulla system.

***Conclusion:*** There are almost% 100 success rates in treatment of HCV thanks to new antiviral medications. However there are a lot of patients are not treated, due to low awareness of HCV disease. Considering%100 success rate in treatment this disease can be erased from world future, by identifying and scanning for those patients who are not treated yet.

***Keywords:*** HCV, treatment

---

***PP-842***

## *A rare case of an ileal Dieulafoy's lesion manifesting as obscure, overt gastrointestinal bleeding*

**Enrik John Aguila, Gwen Marcellana, Gerardo Mendoza**

*St. Luke's Medical Center-Global City, Metro Manila, Philippines*

Obscure, overt gastrointestinal bleeding (GI) poses both a diagnostic and therapeutic challenge to gastroenterologists. In 5% of patients with overt GI bleeding, the cause is not found on upper endoscopy and colonoscopy. Dieulafoy's lesion,

a rare and potentially life-threatening vascular abnormality is among the reported causes of obscure but life-threatening causes of GI bleeding which accounts for only 1-2%. It is often located in the proximal stomach (75%) and occurrence in the small intestine is noted to be extremely rare. This report aims to describe a case of an ileal Dieulafoy's lesion manifesting as obscure, overt GI bleeding. This is a case of a 78 year-old female presenting with hemodynamic instability due to recurrent hematochezia with an unremarkable initial endoscopic work-up. She repeatedly underwent blood transfusions prior to an upper endoscopy and colonoscopy which revealed unremarkable results. A capsule endoscopy likewise was unremarkable hence patient was discharged stable. Three weeks after, patient again had hematochezia. A single-balloon antegrade enteroscopy was subsequently done which showed an unremarkable upper GI tract. A bleeding lesion was seen in the ileum on retrograde enteroscopy. Attempt to clip the lesion with a resolution clip was unsuccessful since the oozing vessel was in the small space between the prong of the clip. A hemoclip deployed after was able to control the bleeding. Post-procedure, patient improved with no recurrence of hematochezia. In cases of obscure GI bleeding, one of the possibilities is that the lesion can be within the reach of a standard endoscope but could be difficult to visualize. This case report emphasizes on such clinical dilemma with the presence of an ileal Dieulafoy's lesion bleeding intermittently. Due to its rarity and difficulty to access, an integrative approach is needed for prompt detection and treatment.

***Keywords:*** Dieulafoys lesion, ileum, obscure GI bleeding

---

***PP-843***

## *Dietary habits and nutritional status of patients with liver cirrhosis in the gastroenterology department of Timisoara*

**Mirabela-madalina Topan, Mirela Danila, Roxana Sirli, Ana-maria Ghiuchici, Calin Burciu, Andreea Corobea, Ioan Sporea**

*The Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** An important independent prognostic factor in patients with liver cirrhosis is the nutritional status. In order to prevent malnutrition or to correct it, a detailed assessment of the dietary intake of liver cirrhotic patients is mandatory. The purpose of this study was to explore the frequency of malnutrition and dietary habits in patients with liver cirrhosis.

***Materials and Methods:*** Data were collected from patients with advanced liver fibrosis of different etiologies admitted in our department. We assessed the nutritional status of these groups according to the SGA and the score PG-SGA and anthropometric measurements (skinfold-thickness, BMI, mid arm circumference and hand grip strength). Dietary habits, demographic data and alcohol consumption related information was collected from the selected patients;

***Results:*** 150 patients were included, with a mean age of 62.66 ±10 years. 25% had compensated liver cirrhosis and 75% were decompensated. The prevalence of malnutrition (MAMC < 23cm (men) and <18cm (women)) was 73% in patients with decompensated liver cirrhosis. Almost all patients showed faulty dietary habits, lack of interest in the nutritional side and a sedentary life style. 80% of malnourished patients had a restriction of dietary fat and protein intake especially due to an old myth about liver disease. Only 20% of the patients with decompensated liver cirrhosis had a restricted sodium diet. The main factor influencing food intake was reduced appetite or early satiety.

***Conclusion:*** Cirrhotic patients from our region have sedentary life style and faulty dietary practices which reflects in their nutritional status. Nutritional counselling should be included in the therapeutic management of these patients in order to prevent and to treat malnutrition.

***Keywords:*** Liver cirrhosis, dietary habits, malnutrition

***PP-844***

## *Impact of Ramadan fasting on Crohns disease*

**El Mountassir Meryem, Borahma Mohamed, Lagdali Nawal, Berhili Camelia, Benelbarhdadi Imane, Ajana Fatima-Zohra**

*Centre Hospitalier Universaitaire (CHU), IBN Sina, Rabat, Morocco*

***Background/Aims:*** Crohns disease is a chronic inflammatory bowel disease. Ramadan is the month in which every adult Muslim must observe a daytime fast from sunrise to sunset, these lifestyle changes result in digestive, nutritional and behavioral changes. The purpose of our work is to study the impact of Ramadan on patients with Crohns disease.

***Materials and Methods:*** This is a prospective descriptive study during the month of Ramadan 2011 from August 02 to August 31, 2011 (30 days). All patients with Crohns disease presenting regularly for an average of 18 years (1993-2011) were included in the study, excluding those with exclusively perianal manifestations involvement. We collected 100 cases that met our inclusion criterias.

***Results:*** Our study included 56 women and 44 men with a mean age of 35.94 years (range: 18 to 70 years), 34% of the patients were operated on, Crohns disease was ileocolic in 60% of the cases, ileal in 20% of the patients, case and colic in 20% of cases. Treatment was based on immunosuppressants in 64% of cases, aminosalycilés in 18% of cases, corticosteroids in 12% of cases and anti-TNFα in 6% of cases. Fasting was well tolerated in 94% of the cases with a clear improvement of the clinical symptomatology during the day, however only 6% of the patients couldn't afford fasting requiring its interruption, the reasons for the interruption of the fast were dysfonctionnal uterine bleeding responsible for a deep anemic syndrome in 02 case and epigastralgia unrelated to the disease in patients taking corticosteroids in 04 cases.

***Conclusion:*** Throughout our work we noted that the majority of patients have a good tolerance of fasting, however the reasons for its interruption were not related to Crohns disease itself but to other related factors.

***Keywords:*** Crohn's disease, Ramadan, nutrition

---

***PP-845***

## *Preoperative oral antibiotics significantly reduces incisional surgical site infection, but not organ/space infection in complicated Crohns disease*

**Kun Guo[1], Wenbin Gong[2], Gefei Wang[3]**

*[1]Department of General Surgery, The First Affiliated Hospital of Ustc, Division of Life Sciences and Medicine, University of Science and Technology of China, Hefei, Anhui, P. R. China*
*[2]Department of General Surgery, Southeast University School of Medicine, Jinling Hospital, Nanjing, Jiangsu, P. R. China*
*[3]Department of General Surgery, Jinling Hospital Medical School of Nanjing University, Nanjing, Jiangsu, P. R. China*

***Background/Aims:*** Surgical site infection (SSI) is a common cause of major morbidity after bowel resection. Our research is to clarify whether preparation oral antibiotics use impact surgical site infections (SSIs) after surgery in Crohn's disease (CD).

***Materials and Methods:*** A prospective study was performed of CD patients undergoing bowel resections for CD from October 1, 2014, to December 31, 2017. For patients undergoing elective bowel resection, the impact of preoperative MBP alone, and combined MBP + oral antibiotic preparation (OABP) on SSIs were evaluated using univariate analysis. Multivariable logistic analysis was used to evaluate the association between use of oral antibiotics and MBP and the occurrence of SSIs.

***Results:*** Of the 317 patients, 54.7% and 45.3% had MBP alone and MBP+OABP, respectively. Demographic characteristics, indications for surgery, and type of surgical procedure did not significantly differ between the two groups. The incisional SST rate was 20.5% in MBP group and 9.3% in MBP+OABP group, and organ/space infection occurred in 6.4% versus 5.7% respectively. Logistic regression analysis confirmed that MBP+OABP was associated with decreased risk of SSIs complications compared with MBP alone.

***Conclusion:*** Combined mechanical and oral antibiotic preparation for complicated CD patients undergoing bowel resection is associated with decreased rates of incisional surgical site infection, but not organ/space infection.

***Keywords:*** Crohn's disease, bowel resections, mechanical bowel preparation, oral antibiotic preparation, surgical site infections

---

***PP-846***

## *Flavonoids isolated from Termenalia arjuna exhibits protection in peptic ulceration*

**Vaibhav Mishra[1], Akanksha S Mishra[2], Vijai Lakshmi[1], Abbas Mahdi[1]**

*[1]King George's Medical University, Chowk, Lucknow, India*
*[2]Banaras Hindu University, Varanasi, India*

***Background/Aims:*** In continuation of our drug discovery programe, we are introducing the natural compound flavonoids isolated from the *Termanalia arjuna* which is showing protection in peptic ulceration. In this pilot study we are trying to establish the role of flavonoids isolated from *Termanalia arjuna* in ulceration.

***Materials and Methods:*** All the experimental animals were divided into three gropus
***i) Control group:*** All animals of this group was treated with 1% CMC
***ii) Treatment group*** (Flavonoids isolated from *Termanalia arjuna*) at dose of 20, 40 and 60 mg/kg bwt.
***iii) Reference group:*** Omeprazole 10 mg/kg b wt as reference.
All the chemicals were procured from the Sigma-Aldrich

***Results:*** In acute gastric ulcer models flavonoids displaying significant protection at 40 mg/kg b wt (62.5% in CRU, 50% in aspirin, 80% in alcohol and 65% in pyloric ligation model) and it also increases the PGE-2 and mucin level. We also found that it up regulates the COX-2, EGF and VGEF genes.

***Conclusion:*** *Termanalia arjuna* extract was known for its gastroprotective activity but the main responsible molecule was not discovered yet so in this study first time we are reporting the main natural compound accountable for gastroprotection.

***Keywords:*** Peptic ulcer disease, gastric ulcer, flavonoids isolated from *Termanalia arjuna*

---

***PP-847***

## *Association Plummer vinson syndrome and cancer*

**El Mountassir Meryem [1], Benelbarhdadi Imane[1], Lagdali Nawal[1], Berhili Camelia[1], Obtel Majdouline[2], Borahma Mohamed[1], Ajana Fatima-zohra[1]**

*[1]Centre Hospitalier Universaitaire (CHU), IBN Sina, Rabat, Morocco*
*[2]Mohammed V University of Rabat School of Medicine, Agdal Rabat, Morocco*

***Background/Aims:*** Plummer Vinsons syndrome (PVS) is a rare entity that combines dysphagia, iron deficiency anemia and a web in the upper third of the esophagus. The aim of our work is to describe the epidemiological profile of patients with cancer-associated PVS and to show the interest of endoscopic surveillance in them.

***Materials and Methods:*** This is a retrospective study over a 25-year period (1993-2019) including all patients treated for PVS and diagnosed with cancer.

***Results:*** Of the 148 patients treated for PVS, 14 (10.0%) had associated cancer. The average age was 50.6 +/-13.2 years of which 92.9% were women. The average age of subjects diagnosed with cancer over 3 months was lower than those diagnosed with less than 3 months (46.3 +/-15.2 versus 59.2+). /-3.5 years). The average time between diagnosis and the appearance of cancer was 4 years. All our patients had iron deficiency anemia with dysphagia, 92.9% had an odynophagia and 53.8% had Phanerians disorders. The localization of the cancer was in the openning of the esophagus in 14.3% with neoplastic infiltration of the esophageal web in 42.9% of cases (n=6), upper 1/3 in 7.1%, middle 1/3 in 14.3% and in the lower 1/3 in 21.4%. It was squamous cell carcinoma in all cases. Surgical treatment was initiated in 8.3%, radiochemotherapy in 83.3% and refusal of treatment in 8.3%. 04 patients died between 5 months and 5 years of cancer evolution.

***Conclusion:*** At the end of our study, the combination of PVS and esophageal cancer is far from rare. Endoscopic evaluation and screening should be done.

***Keywords:*** Plummer vinsons syndrome (PVS)-cancer-oeso-gastroduodenal fibroscopy

---

***PP-848***

## *Evaluation of liver fibrosis and steatosis in patients with positive Audit-C test*

**Camelia Gianina Foncea, Alina Popescu, Andrada-patricia Belintan, Tudor Voicu Moga, Radu Cotrau, Roxana Sirli, Mirela Danila, Ioan Sporea**

*The Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** The harmful use of alcohol has been estimated to cause approximately 3.3 million deaths every year, corresponding to nearly 6% of all deaths globally. Patients consuming a critical amount of alcohol present in many cases liver steatosis and significant liver fibrosis and should undergo appropiate screening investigations. The aim of this study was to determine the severity of liver steatosis and fibrosis, in a cohort of patients with positive Audit-C test, using two non-invasive methods: Transient elastography and Controlled Attenuation Parameter, in order to establish the need of a screening system for these patients.

***Materials and Methods:*** 57 patients with Audit-C positive test and unknown liver disease were prospectively enrolled. Evaluation of liver fibrosis and steatosis was made using Transient Elastography (FibroScan) (TE) with Controlled Attenuation Parameter (CAP). Reliable liver stiffness measurements (LSM) were defined as the median value of 10 LSM with an IQR/median <30%. For the evaluation of steatosis by CAP we used the following cut-off values proposed by the manufacturer: S1(mild) 230-270 db/m, S2(moderate): 270-290 db/m, S3 (severe) >290 db/m. For fibrosis staging we used the following cut-offs: F2≥7kPa, F3≥9.5 kPa and F4≥12 kPa. Positive AUDIT-C test was defined by a score ≥4.

***Results:*** Reliable LSM were obtained in 96.5% (55/57) patients, mean age 63.5±1.5 years, 94.5% male (52/55). The mean CAP value was 302.6±57.5 db/m and the mean value for TE was 15.85±6.1 kPa. Moderate and severe steatosis was found in 14.2% (8/55) and 59% (32/55) patients respectively. Significat fibrosis (LSM≥9.5 kPa) was found in 18% (10/55) patients.

***Conclusion:*** In our cohort, 73.2% of patients with an AUDIT-C score ≥4 presented moderate and severe liver steatosis and 18% significant liver fibrosis, suggesting the need for a screening algorithm and further assement for these patients.

***Keywords:*** Audit-C, alcohol, screening

***PP-849***

## *Prognostic impact of the presenting symptoms of patients with hepatocellular carcinoma*

**Jun-ming Samuel Lim[1], Ying Hao[2], Boon-bee George Goh[1], Pik-eu Jason Chang[1], Chee-kiat Tan[1]**

*[1] Department of Gastroenterology and Hepatology, Singapore General Hospital, Outram, Singapore*
*[2]Singapore General Hospital Health Services Research Unit, Outram, Singapore*

***Background/Aims:*** Patients with symptomatic hepatocellular carcinoma (HCC) fare poorly compared to patients who are asymptomatic. It is not known if the nature, number and duration of presenting symptoms at the time of HCC diagnosis impact on overall survival. This study examines if presenting symptoms have a significant impact on a patient's prognosis. If so, it may help in the prognostication of HCC patients.

***Materials and Methods:*** The study cohort comprised 720 patients with symptomatic HCC seen in our department since October 1983. Another 550 patients during the same period were diagnosed either incidentally or on screening. Presenting symptoms at the time of diagnosis were documented. A survival census was performed on 31 October 2015 with the national registry of deaths. The presenting symptoms were examined for association with overall survival using multivariable Cox regression analysis. Survival analysis was by Kaplan-Meier method with log-rank testing. Bivariate Pearson correlation was used to look for any association between the duration of symptoms and overall survival.

***Results:*** The mean age of patients in the study cohort was 61.8 +/-25.2 years. There were 612 (85.0%) males. The majority of patients had evidence of Hepatitis B infection (73.9%). Patients with symptomatic HCC had a significantly shorter survival than those who were diagnosed either incidentally or on screening (94.0 vs 786.0 days, p<0.001). The mean duration of presenting symptoms before diagnosis of HCC was 5.40 +/-17.1 weeks. There was no significant relationship between the duration of presenting symptoms and overall survival. Survival was significantly shorter in patients presenting with fluid retention (56.0 vs 118.0 days, p<0.001), jaundice (48.0 vs 94.0 days, p=0.017) and with two or more symptoms (p=0.010), while the presence of pain was associated with significantly better survival (p<0.001). On multivariable Cox regression analysis, only the presenting symptoms of fluid retention (HR 1.53, 95%CI 1.27-1.83) and jaundice (HR 1.34, 95%CI 1.05-1.71) were independently associated with shorter survival. Age was not a confounder.

***Conclusion:*** Patients with HCC presenting with fluid retention or jaundice have a significantly shorter overall survival. This is useful in assessing patients at the time of diagnosis of HCC.

***Keywords:*** Prognostic impact, presenting symptoms, hepatocellular carcinoma

---

***PP-850***

## *Portal hypertension (HTP) on hepatic sinusoidal vascular disease: About 114 cases*

**Zertiti Soukaina, Ben El Barhdadi Imane, Lamarti Ferdaouss, Berhili Camelia, Lagdali Nawal, Borahma Mohammed, Ajana Fatima-Zahra**

*Department of Medicine, IBN Sina Hospital Mohammed V University, Rabat, Morocco*

***Background/Aims:*** The term vascular-sinusoidal disease (MVPS) covers various entities characterized by abnormalities of portal venules and / or sinusoids, previously named histologically: nodular regenerative hyperplasia, portal veinopathy obliterans, hepatoportal sclerosis, non-cirrhotic portal fibrosis and from a clinical point of view: idiopathic portal hypertension, or non-cirrhotic intrahepatic portal hypertension. The objective of our work is to describe the various clinical, radiological, endoscopic, etiological and evolutionary aspects of this entity.

***Materials and Methods:*** This is a 25-year, single-center, descriptive, retrospective study (1994-2019), which collects all patients followed for HTP by non-cirrhotic intrahepatic block confirmed by an adequate hepatic biopsy puncture and complying with the diagnostic criteria of MVPS according to international recommendations for the diagnosis of MVPS. Data collection and statistical analysis was done using SPSS 22.0 software

***Results:*** We included 114 patients. The average age was 42.27±13.62 years old. The sex ratio F/H was at 1.97. The specific signs of HTP were present in 94.7% of cases dominated by portosystemic CVC Doppler in 78.4% of cases. Esophageal varices (OV) were present in 68.4% of patients with red signs in 42.1% of cases. Oeso-gastric varices (GOV) were found in 24.5% of our patients, while isolated gastric varices (IGV) were found in only 10.5% of cases. Only 1 patient had duodenal ectopic varices. Lesions of hypertensive gastropathy were present in 46.5% of our patients. The non-specific signs of HTP were found in 95.6% of our patients dominated by splenomegaly in 85.1% of cases (n=97), ascites in 28.1% of cases (n=32) and Thrombocytopenia <100000 / mm3 in 27.2% of our patients. Specific histological signs were present in 26.3% of cases dominated by hepato-portal sclerosis. 36.3% (n=41) of our patients underwent oesophageal variceal ligation (LVO) until eradication with a median of 3 sessions [2,4], sclerotherapy was indicated in 11,4% (n=13) of our patients with a median of 4 sessions [1,5; 5]. 4.4% of our patients had emergency surgical bypass. B-blockers were prescribed in 44.7% of our patients (n=51). Portal thrombosis complications were noted in 12.3% of our patients. The associated etiological states were found in 43.9% of cases (n=50): thrombophilia in 9.6% of cases, myeloproliferative syndromes and hepatic sarcoidosis in 5.3% of cases, metastatic liver in 4, 4% of cases, nocturnal paroxysmal hemoglobinuria, hepatic tuberculosis and polycystic liver disease in 3.5% of cases, celiac disease and Biermers disease, CHC on healthy liver in 2.6% of cases. Gaucher disease, hepatic LMNH, hepatic angiomatosis, CBP and intrahepatic cholangiocarcinoma in 0.9% of cases. The evolution was marked by the occurrence of deaths in 7% of our patients (n=8) with a decline of 12.21 years ± 6.63 years

***Conclusion:*** Endoscopic lesions of HTP were the most common mode of presentation of MVPS. The treatment was based mainly on the LVO associated with a prevention by β-blockers. The etiological states are multiple dominated in our series by thrombophilia. The death was exceptional with a decline of 12.21 years ± 6.63 years.

***Keywords:*** portal hypertension, vascular sinusoidal disease,etiological states

---

***PP-851***

## *Endoscopic treatment of bleeding ulcers: Where are we now?*

**Rim Benjira, Hakima Abid, Maria Lahlali, Asmae Lamine Sejai, Nada Lahmidani, Mounia Elyousfi, Mohammed Elabkari, Sidi Adil Ibrahimi, Dafr-allah Benajah**

*University Hospital Hassan II, Casablanca, Morocco*

***Background/Aims:*** Peptic ulcer (PU) is the leading cause of upper gastrointestinal bleeding, with a high mortality rate. Its endoscopic treatment aims to obtain haemostasis, to reduce the risk of haemorrhagic recurrence and of surgical interventions, and thus to reduce mortality. The aim of our work was to evaluate the effectiveness of endoscopic treatment in bleeding ulcers.

***Materials and Methods:*** This is a retrospective study conducted between January 2001 and June 2019, including all PUG patients who received endoscopic treatment. We analyzed the success rate of endoscopic haemostasis, the rate of haemorrhagic recurrence and mortality.

***Results:*** 112 patients were included. The mean age of the patients was 50.9 years [23-93 yo], with a male predominance (88.5%). Fifteen patients (13.4%) had the concept of taking non steroidal anti inflammatory drugs, while thirty three were smokers (29%). The localisation was bulbar in 83 patients (74.1%). Ten percent of the ulcers were stage Ia (n=12), 75.4% stage Ib (n=60), 5% stage IIa (n=26), and 10% stage IIb (n=14). The initial hemostasis rate was 91%. Thirteen patients (11.6%) had a bleeding recurrence, of which 5 had used surgery, and 4 were endoscopically retreated with successful haemostasis. The mortality rate was 5.3% (n=6).

***Conclusion:*** Endoscopic treatment seems to be effective in hemorrhagic ulcers, since it allows to obtain a final hemostasis in 91% of cases.

***Keywords:*** Bleeding ulcer, upper GI bleeding, endoscopic treatment

***PP-852***

## *Single nucleotide polymorphisms in APLN and fabp2 genes strongly correlate with liver enzymes in Pakistani NAFLD cases*

**Rizwana Abdul Ghani[1], Asad Mehmood Raja[2], Muhammad Mobeen Zafar[2], Muhammad Saqlain[2], Ghazala Kaukab Raja[2]**

*[1]The University of Lahore, Islamabad, Pakistan*
*[2]University Institute of Biochemistry and Biotechnology, Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Rawalpindi, Pakistan*

***Background/Aims:*** Nonalcoholic fatty liver disease (NAFLD) is characterized by the built up of fats in liver. The disease is becoming a severe health issue worldwide. Initial diagnosis of NAFLD is done based on raised levels of alanine aminotransferase (ALT) levels compared to aspartate aminotransferase (AST). In order to explore the genetic contributions of liver enzymes, association of several NAFLD specific candidate gene markers with ALT and AST have been explored. In present study we report strong risk associations of Single Nucleotide Polymorphisms (SNPs) in APLN and FABP2 genes with NAFLD in Pakistani subjects.

***Materials and Methods:*** Genotyping of APLN/rs181301686 and FABP2 (rs1799883) markers was performed on NAFLD cases (471) and healthy controls (311). Minor allele frequencies (MAF) of both SNPs were estimated and compared with globally reported MAFs (GMAFs). The association analysis was performed using age and sex adjusted logistic regression models (OR at 95% CI) with a threshold p-value of ≤0.025 (after Bonferroni multiple testing correction).

***Results:*** The AST and ALT enzymes levels were significantly raised from their normal levels in NAFLD cases. The MAFs of APLN and FABP2 genes SNPs were raised in Pakistani cases (0.02, 0.4) compared to GMAFs (0.01, 0.25) and SAS populations (0.0072, 0.31). The APLN gene SNP lacked association with disease (OR=0, p-value=0.083) while FABP2 showed significant protective role (OR=0.57, CI=0.36-0.91, p-value=0.019). With regards to liver enzymes, APLN/rs181301686 positively correlated with ALT (OR=21.81, CI=1.90-250.66, p-value=0.013) while FABP2/rs1799883 with AST (OR=4.69, CI=1.15-19.16, p-value=0.024).

***Conclusion:*** Based on strong and positive associations of APLN/rs181301686 and FABP2/rs1799883 with AST and ALT enzymes levels, the minor alleles of both SNPs could be considered as genetic risk markers indicating their strong role as indicators of liver injury.

***Keywords:*** NAFLD, liver enzymes, SNPs, APLN, FABP2

***PP-853***

## *Texture analysis features in prediction of HCC grade at explant*

**Sadık Server, Soheil Sabet**

*Department of Radiology, Demiroğlu Bilim University Şişli Florence Nightingale Hospital, İstanbul, Turkey*

***Background/Aims:*** Histologic grade of Hepatocellular Carcinoma is one of the most important predictors of recurrence following liver transplantation. Radiologic estimation of tumor grade has been evaluated through differenet conventional imaging modalitites in several studies. Recently, texture analysis (TA) has been introduced which is a pixel based computer aided analaysis of radiologic images. Is has been seccueefully implemented specialy in oncology field for evaluation of tumor biology. In this retrospective study we aimed to evaluate the efficacy of TA features in prediction of HCC at explant.

***Materials and Methods:*** Sixty three histopathologically proven HCC lesions were registerde. All patients were examined by a 16-slice multidetector computed tomography scanner (Siemens Somatom Sensation 16, Erlangen, Germany). TA was performed on arterial phase contrast enhanced CT images by MaZda software version 4.6 (Technical University of Lodz, Institute of Electronics).

***Results:*** HCC lesions with Edmonson histopathologic grade of I or II were classified as low, and grade III or IV were classified as high grade lesions. Features under 3 sigma normalisation scheme through Fisher test yielded high performance in classifiying low and high grade HCCs specially for Gray Level Co-ocurrence Matrix (GLCM) features.

***Conclusion:*** Texture analysis features specially Gray Level Co-occurrence Matrix (GLCM) are able to predict HCC grade prior to liver transplantation which facilitates selection of cases at higher risk of tumor recurrence after liver transplantation.

***Keywords:*** Hepatocellular carcinoma, texture analysis, liver transplantation

---

***PP-854***

## *Measures to reduce post-polypectomy bleeding in pedunculated polyps-does an endoscopic clip help?*

**Saadiq Moledina, Richard Hall, Ralph Canda, Rigers Cama, Rajan Patel, Kalpesh Besherdas**

*The Royal Free Hospital, NHS Foundation Trust, London*

***Background/Aims:*** Immediate and delayed post-polypectomy bleeding (PPB) is a serious complication after endoscopic removal of large pedunculated polyps (PP). Options to decrease the risk of bleeding include injecting the stalk with adrenaline, placing an endoscopic clip (EC) across the stalk (before or after the polypectomy) and placement of a nylon loop around the stalk. The principle of closing a defect to reduce complications is well established but cost effectiveness of prophylactic clipping remains controversial. Currently no consensus guidelines exist.

***Materials and Methods:*** We aimed to investigate the use of EC's during polypectomy of PP >10mm and assess its association with PPB. A large retrospective study across two sites at a tertiary London-based hospital Trust was performed. Endoscopy software was used to identify Pp>10mm in size during a 5-year period (January 2014-March 2019). Patients not undergoing polypectomy were excluded. Immediate Bleeding (IB) and Delayed Bleeding (DB) were defined as bleeding within 0-24 hours and 24 hours-14 days respectively.

***Results:*** 895 polypectomies for PP were identified (mean age 65.3 (range 22-94), Female 325 (35.8%). Mean PP size 16.18 mm. 575 (64.2%) in sigmoid colon. 866 (96.8%) hot snare polypectomy. 354 (39.6%) injected with adrenaline. 21 (2.4%) cases of IB were identified. All were identified intra-procedure and all except 1 were managed endoscopically with an EC (95.0%). 8 (38%) patients with IB had EC + adrenaline applied. There were no cases of IB where a prophylactic EC was applied and no subsequent cases of DB in the IB cohort. One IB case could not be controlled with an EC (perforation requiring surgical intervention). 9 (1.0%) cases of DB were identified (1 EC (0.34%) vs. 8 no EC (1.3%)). There were no DB cases in all hot snare polypectomies where adrenaline and EC were applied.

***Conclusion:*** EC's are used in approximately 1/3$^{rd}$ of patients undergoing polypectomy in a cohort of almost 900 PP. Use of EC is associated with larger polyp size and concurrent use of adrenaline injection. IB and DB rates are low, 2.4% and 1% respectively. 95% of IB cases were treated effectively with an EC and achieved haemostasis. There were no cases of IB where an EC was used prophylactically. There remains considerable variation in practice with regards to EC use. We recommend the use of prophylactic EC's for PP. Further feasibility studies to determine the cost-effectiveness of prophylactic clipping are required.

***Keywords:*** Endoscopic Clip, Pedunculated Polyps, Post-polypectomy Bleeding

***Table 1.*** Bleeding complications according to use EC

| | Endoscopic Clip (n=294) | No Endoscopic Clip (n=601) | p* |
|---|---|---|---|
| Size (mm) | 17.64 | 15.48 | <0.0001 |
| Hot Snare (%) | 284 (96.6) | 582 (96.8) | 0.87 |
| Adrenaline injection (%) | 168 (57.1) | 182 (30.2) | <0.0001 |
| Immediate bleeding (%) | 0 (0) | 21 (3.49) | 0.001 |
| Delayed bleeding (%) | 1 (0.34) | 8 (1.34) | 0.16 |

***PP-855***

## *NOD2 gene variants in Moroccan Crohn disease patients*

**El Bacha Hicham, Benzzoubeir Nadia, Gharbi Tarik, Ouazzani Laaziza, Errabih Ikram**

Department of Gastroenterology B, IBN Sina University Hospital, Rabat, Morocco

***Background/Aims:*** Crohns disease is a chronic inflammatory bowel disease (IBD), that can involve any part of the gastrointestinal tract. Multiple risk factor have been identified such as environmental, immune, and bacterial factors in genetically susceptible individuals. The most related gene for Crohns disease is NOD2, located on proximal 16q, which is involved in the innate immune response. There is three main variants of this gene involved: two single nucleotide polymorphisms p.Arg-702Trp and p.Gly908Arg substitutions and frame shift polymorphism p.Leu1007fsinsC. There is no data about the frequency of these allelic variants in Moroccan patients with Crohns disease. The aim of our study is to genotype the NOD2 gene to assess the involvement of these three variants in susceptibility to Crohns disease for Moroccans.

***Materials and Methods:*** We performed a comparative study among 101 Moroccan patients with Crohns disease and 107 healthy controls. We carried out genotyping for the three variants p.Arg702Trp, p.Gly908Arg and p.Leu1007fsinsC of NOD2 gene using PCR-sequencing.

***Results:*** The three main variants of NOD2 gene were present with no statistical difference in the two groups.

***Conclusion:*** This study shows no association of NOD2 gene with Crohns disease in the Moroccan population.

***Keywords:*** NOD2 gene, Crohns disease, Moroccan

***PP-856***

## *Risk factors influencing response to ursodesoxycholic acid during primitive biliary cholangitis*

**Lajouad Sanae, Benelbaghdadi Imane, Berhili Camelia, Lagdali Nawal, Borahma Mohammed, Ajana Fatima Zahra**

*Ibn Sina University Hospital Center, Rabat, Morocco*

***Background/Aims:*** The goals were to evaluate the biochemical response to UDCA during PBC and to identify the factors predicting a poor therapeutic response.

***Materials and Methods:*** Its about a 22-year retrospective study (1998-2019) collating all patients followed for PBC. The response to treatment was defined by the Paris II criteria for 1 year. Statistical analysis of the data was done using IBM Statistics SPSS software. The comparison between good responders to treatment and non-responders was performed using the Chi-square test for qualitative variables and the Mann-Whitney test for quantitative variables. We considered a variable is statistically significant if p<0.05.

***Results:*** 90 cases were collected, 5 men and 85 women. The average age was 49 ± 12.3. The main functional signs were jaundice 60.9%, pruritus 54% and asthenia 23.9%. On clinical examination, signs of portal hypertension were found in 35.6%. Cholestasis was constant for all patients. Hyperbilirubinemia was noted in 48.3%. Associated cytolysis was noted in 66.3%. A low prothrombin time (PT) was found in 26.9%. Positive antimitochondrial antibodies were found in 69.7%. A biopsy puncture of the liver was performed in 56.7%. Stage II of Scheuer was the most common (43.1%). The presence of oesophageal varices (OV) was found in 32.8%, cardiac varices (VSC) in 12.1% and hypertensive gastropathy in 46.6%. Treatment of PBC was based on AUDC at a dose of 13-15 mg / kg / day. A response at 1 year according to Paris II criteria was found in 52.3%. Factors associated with no therapeutic response were: presence of jaundice (p=0.02), HTP signs (p=0.04), low TP (p <0.001), presence of VO (p <0.001) VSC (p=0.02) endoscopic hypertensive gastropathy (p=0.002) and the presence of extensive septal fibrosis and cirrhosis (Scheuer stage II, III, and IV) at puncture biopsy of the liver (p=0.01).

***Conclusion:*** The response to the AUDC was obtained for 52.3%. Factors associated with non-therapeutic response were jaundice of clinical and endoscopic HTP signs, low TP, cirrhosis, and / or ductopenia. Should we associate a second-line treatment in these patients?

***Keywords:*** PBC, Paris 2 criteria, risk factors, response to ursodesoxycholic acid

---

***PP-857***

## *Autoimmune diseases associated with primary biliary cholangitis: prevalence and prognostic impact*

**Lajouad Sanae, Benelbarhdadi Imane, Berhili Camelia, Lagdali Nawal, Borahma Mohamed, Ajana Fatima Zahra**

*Ibn Sina University Hospital Center, Rabat, Morocco*

***Background/Aims:*** Determine the prevalence and type of autoimmune diseases associated with PBC and to evaluate their impact on the prognosis of the disease.

***Materials and Methods:*** This is a retrospective study over a period of 22 years (1998-2019) including all patients followed for PBC. For all these patients, we have systematically searched for: Autoimmune hepatitis, dysthyroidism, type 1 diabetes, dry syndrome, celiac disease, dermatological involvement, and joint disease. Statistical analysis of the data was done using the SPSS software. The comparison of the biochemical response to ursodeoxycholic acid between patients with isolated CBP and those with CBP associated with autoimmune pathology was performed using the Khi2 test. An association of the variables was considered statistically significant. if p<0.05.

***Results:*** 90 patients (85 women and 5 men) followed for PBC were collected. The average age was 49 +/-12.3. 36 from these patients (42.9%) had autoimmune disease associated with PBC. The discovery of these autoimmune diseases preceded the diagnosis of PBC in 9 cases (27.3%) and was concomitant in the remaining cases. Autoimmune hepatitis was found in 10 patients 12%, defining an overlap syndrome. Other diseases were Hashimotos thyroiditis n=9, basedow n=1 dry syndrome n=10, celiac disease n=3, insulin-dependent diabetes n=2, scleroderma systemic n=1, rheumatoid arthritis n=1, Addisson disease n=1 Psoriasis n=1 vitiligo n=1. Comparison of the biochemical response to ursodeoxycholic acid between patients with isolated PBC and those with PBC associated with autoimmune pathology was statistically non-sinificative with p=0.67.

***Conclusion:*** In our series, the prevalence of autoimmune diseases associated with PBC was 40%. These diseases were dominated by autoimmune hepatitis, Hashimotos thyroiditis and dry syndrome. Although their association does not appear to alter the prognosis of PBC or the response to UDCA.

***Keywords:*** PBC, autoimmune diseases, response to UDCA

***PP-858***

## *Endoscopic resection of a giant symptomatic Brunner's gland hamartoma of duodenal bulb, saving from unnecessary pancreaticoduodenectomy*

**Umid Kumar Shrestha, Gopi Aryal**

*Nepal Mediciti Hospital, Bhaisepati, Lalitpur, Nepal*

***Introduction:*** Brunners gland hamartoma is a very rare benign tumor arising from the Brunner's gland of duodenum and is usually asymptomatic, but may present with the symptom of duodenal obstruction or upper gastrointestinal bleeding due to ulceration from the tumor, requiring endoscopic or surgical resection.

***Case:*** In our study, we report the case of a 57 year-old male who presented with pain over epigastrium, recurrent vomiting and black stool with a lowering of Hemoglobin up to 7.5 gm/ dl. The upper gastrointestinal endoscopy revealed a giant submucosal polypoidal mass in duodenal bulb causing almost complete obstruction of the lumen of duodenum and there was a superficial ulceration on the mass. The endoscopic ultrasound revealed a submucosal lesion arising from the echo layer three. The computed tomography of abdomen showed that the polypoidal mass was confined to the duodenal lumen with no significant lumphadenopathy and normal biliary and pancreas.

***Conclusion:*** The endoscopic polypectomy was attempted, but the lesion was too large to grab the polyp as a whole with the conventional snare. Hence, the repeated partial snare polypectomies were done, followed by submucosal dissection to ensure the complete removal of the mass; the mucosal defects were closed by hemoclips and hemostasis was maintained. There were no complications after the procedure. The histopathology examination confirmed the diagnosis of Brunner's gland hamartoma. The patient was followed up to 1 year. There was no any recurrence of the lesion and the patient was doing well. Hence, endoscopic resection may be possible for the treatment of even giant Brunnner's gland hamartoma of duodenal bulb in the hands of expert, saving the unncecessary surgery needing pancreaticoduodectomy.

***Keywords:*** Brunner's gland hamartoma, duodenal bulb, endoscopic resection

---

***PP-859***

## *Prospective observational study to study the outcomes of fecal microbiota transplantation in patients with steroid dependent ulcerative colitis*

**Ashish Gandhi, Rajesh Puri, Randhir Sud, Sumit Bhatia, Chitranshu Vashishtha**

*Medanta -The Medicity, Gurugram, Haryana, India*

***Background/Aims:*** IBD,has long been suspected to involve an aberrant host response to its gut microbiota. Currently, there is significant interest in the area of Fecal Microbiota Transplantation (FMT) in IBD especially with UC patients. This study was undertaken to study the outcomes of FMT in patients with steroid dependent Ulcerative Colitis.

***Materials and Methods:*** Single center, prospective observational study,patients with steroid dependent UC were enrolled(n=30),stool sample of donor was processed,family was educated and then FMT was done once weekly through per rectally placed Ryle's tube. Primary outcome i.e. clinical remission and secondary outcomes i.e. clinical response and endoscopic remission after 8 weeks of therapy were assessed.

***Results:*** 4 (13.3%) patients had proctitis(E1),19 (63.3%) patients had left sided colitis(E2),7(23.3%) had pancolitis(E3).Mean Hb was 12±2.2(8.8 – 15.3 gm/dL).Mean TLC was 11.8±3.0(3.2 – 15)x$10^3$/ml.Mean CRP in our study was 5.6±6.4(0.5 35)mg/dL. Mean Mayo Score was 8.6 at baseline and 4.2 after 8 weeks; endoscopic Mayo sub-score at baseline was 2.37, which at

the end of 8 weeks was 1.53. Primary outcome i.e. clinical remission was achieved in 11 (36.7%) patients. Secondary outcome i.e. clinical response was achieved in 16 (53.3%) patients and endoscopic remission was seen in 3 (10%) patients. Steroids were stopped in 10/30(33.3%) patients at the end of 8 weeks. There were no major side effects of FMT therapy noted.

***Conclusion:*** FMT offers a promising role in inducing remission in patients with active UC as observed in our study wherein primary and secondary outcomes were achieved in a reasonable number of patients with steroid dependent active UC.

***Keywords:*** FMT, steroid dependent, UC

---

***PP-860***

## *Registry of autoimmune liver diseases in Iran in three years*

**Sepideh Nikfam, Maryam Rayatpisheh, Marzieh Malek, Niloofar Shaddel, Alireza Sima, Maryam Sharafkhah, Reza Malekzadeh, Siavosh Nasseri-moghaddam**

*Digestive Diseases Research Institute*

***Background/Aims:*** Population-based studies of the prevalence of autoimmune liver diseases in the world is scarce. We conducted a nationwide study of the prevalence of these diseases in our country, Iran. The diseases we included were autoimmune hepatitis, primary sclerosing cholangitis (PSC), primary biliary cholangitis (PBC), variant (overlap) syndrome, autoimmune cholangiopathy and IgG4 related cholangiopathy.

***Materials and Methods:*** We contacted all gastroenterologists and internists who were registered as members of Iranian association of gastroenterology and asked them to fill our questionnaire. We gathered some minimal data set to design a primary questionnaire including demographic data, national code, birth date, sex, race and final diagnosis including the date and physician who diagnosed the disease. The data were then entered into a data base and descriptive pooled information analyzed.

***Results:*** We have registered 4,491 patients with autoimmune liver diseases from all around the country so far. Of these, 1334(29.7%) were male. Mean age of the patients was 43.5 years (41.0 years among males and 44 years among females, p=NS). There were 2,525 (56.2%) autoimmune hepatitis cases (1938, 61.6% female), 836 (18.6%) PSC cases (493, 37% male), 557 (12.4%) PBC cases (14.7% female), 540 (12%) variant syndrome (12.4% female), and 18 (0.4%) and 3 (0.1%) as autoimmune cholangiopathy and IgG-4 related cholangiography respectively.

***Conclusion:*** Autoimmune liver diseases are important causes of chronic liver disease in Iran. This is the first nation-wide report of ALD registry in Iran showing a picture of distribution and composition of various autoimmune liver diseases in the country. Completion of this registry will help to depict a better picture of the burden of disease in Iran as a base for regional and international comparisons as well as further research in the field.

***Keywords:*** Autoimmune liver diseases, registry, autoimmune hepatitis, sclerosing cholangitis

---

***PP-861***

## *Congenital tuberculosis presenting as neonatal cholestasis*

**Anuradha Rai, Lavleen Singh, Natasha Gupta, Arnab Ghosh**

*Chacha Nehru Bal Chikitsalaya Hospital, Delhi, India*

Infection with tubercle bacilli either during the intrauterine life or before complete passage through birth canal defines congenital tuberculosis. Congenital tuberculosis is a rare infectious condition even in endemic countries with fewer than 300 cases reported

in the scientific literature. A 2 month old girl presented with jaundice associated with dark yellow urine leading to diaper staining and light yellow stool.She did not have fever, vomiting, loose stool, cough, respiratory distress or decreased oral intake. History of any illness in biological mother could not be taken as she was adopted at birth. There was no contact history with tuberculosis after birth. She had hepatospleenomegaly on perabdominl examination. Her blood investigation showed transaminitis with direct hyperbilirubinemia with normal coagulation profile. Her abdominal ultrasound showed well defined hypoechoic lesion in liver with calcification, another well defined hypoechoic rounded lesion with internal echogenic foci located at porta hepatis posterior to portal vein, hepatic artery and common bile duct causing mild compression of portal structures and prominent IHBR. Another small lesion of similar morphology was noted at porta and one lesion in peripancreatic region. This was seen closely to abut the pancreatic head and body. Her HIDA scan was suggestive of good hepatocyte function and normal liver to bowel transit time. Ultrasound guided liver biopsy showed maintained lobular architecture with presence of portal and lobular necrotising and non necrotising granulomas with chronic inflammation. During course of illness she developed lymphadenopathy in axilla. FNAC from axillary lymphnode showed significant necrosis. AFB (acid fast bacilli) stain was positive for mycobacteria. Her chest xray also showed multiple non homogenous opacities in both the lung fields. Further gastric aspirate was also sent for AFB stain and CB NAAT (cartridge based nucleic acid amplification) test which grew rifampicin sensitive mycobacterium. So diagnosis of congenital tuberculosis was made and she was started on standard anti tubercular therapy consisting of isoniazid, rifampicin, ethambutol and pyrazinamide. Currently child is doing well and free of jaundice after one month of treatment. This case highlights one more spectrum in form of neonatal cholestasis as a sole presentation of congenital tuberculosis which is rare.

***Keywords:*** Congenital tuberculosis, direct hyperbilirubinemia, liver biopsy, jaundice

---

***PP-862***

## *The "easy lens": A new device to facilitate introduction and patient compliance and sterility. Pilot study*

**Alfredo Saggioro[1], Valerio Cigaina[2]**

*[1] Centro Di Medicina Di Treviso, Villorba, Italy*
*[2] Medautonomic, Inc., California, United States*

***Background/Aims:*** The upper digestive endoscopic procedure has been one of the very first innovative steps for the progress of technology in medicine. This innovation was so abruptly positive that a small problem, the patient throat discomfort during introduction of the endoscope, has been underestimated for a long time. We tested a small convex and absorbable lens, "EASyLens" (EL) applied over the terminal of the endoscope, which can be easily expelled simply by blowing air after introduction, with the purpose to avoid any kind of pain or discomfort for the patient and speed up the introduction procedure.

***Materials and Methods:*** In this pilot study, after informed consent, a total of 10 patients, with or without previous experience of upper GI endoscopy were involved in this new procedure. It was proposed to all participants to avoid any general or local sedation, and use just the small transparent lens over the instrument terminal, to ease introduction and control examination since the beginning. The EL is composed of cellulose dough, purified and dried to result in a transparent accessory, and is naturally dissolved in the stomach after being expelled from the tip of the endoscope.

***Results:*** By simply approaching the devices tip to the glottis and inviting the patient to swallow, the introduction becomes dramatically easy and free from the usual unpleasant vomiting attempts. Furthermore, the EL avoids the oral bacterial contamination of the endoscope's channels, basically to keep sterility during operative procedures especially ERCP procedures.

***Conclusion:*** The endoscopic transparent cap applied over the terminal of the endoscope can effectively facilitate introduction of the endoscopic procedure, reducing time of the procedure and patient's discomfort. A positive cenesthesis both for patient and endoscopist is a good prelude for an eventual further and relaxed experience.

***Keywords:*** Introduction, comfort, procedure, sterility, easy, lens

***PP-863***

## *Diet and gastroesophageal reflux. correlation analysis*

**Sergey Morozov, Vasily Isakov**

*Federal Research Center of Nutrition and Biotechnology, Moscow*

***Background/Aims:*** To assess the effect of actual nutrition of GERD patients on the number and type of gastroesophageal reflux detected with 24-hours esophageal pH-impedance.

***Materials and Methods:*** One hundred twenty-four GERD patients (54 men, age (M±m): 46±17.7 y.o., BMI 28.5±0.6 kg/m$^2$) and 41 healthy controls (8 men, age 42±12.4 y.o., BMI 28.3±1.3 kg/m$^2$) were examined with the use of language-specific food frequency questionnaire and 24-hours esophageal pH-impedance (Ohmega, MMS; 2 pH, 6 impedance catheters, Unisensor). The correlation analysis between macro-and micronutrient consumption and the number of gastroesophageal refluxes (GER), their acidity and duration was performed (Statistica 10, StatSoft)

***Results:*** Direct medium-strength correlation was found between esophageal acid exposure time and the energy value of the ration (Spearman rank R=0.19, p<0.05), and the amount of consumed fat (R=0.2, p<0.05). There was a direct correlation of the total number of GERs with the energy value of the ration (R=0.35, p<0.05), protein (R=0.3, p<0.05), fat (R=0.33, p<0.05), and alcohol consumption (R=0.28, p<0.05) and the inverse one with the dietary fiber consumption (R=-0.22). Significant direct correlation was found between the number of acid GERs and total energy value of the ration (R=0.35, p<0.05), consumption of fat (R=0.32, p<0.05), protein (R=0.25, p<0.05), carbohydrates (R=0.24, p<0.05) and alcohol (R=0.24, p<0.05). Number of weak-acid GERs showed direct correlation with the calories intake (R=0.22, p< 0.05), fat (R=0.21, p< 0.05), protein (R=0.22, p< 0.05), alcohol (R=0.23, p< 0.05) consumption, and the inverse one with the amount of dietary fiber intake (R=-0.24, p< 0.05). Number of high GERs correlated directly with the amount of fat (R=0.3, p< 0.05), protein (R=0.22, p< 0.05), alcohol (R=0.25, p< 0.05) consumed, and inversely with the amount of dietary fiber (R=-0.25, p< 0.05) in the ration. Paired comparison of the correlation coefficients was performed, but didn't reveal any difference.

***Conclusion:*** High energy value, consumption of fat and alcohol showed direct medium-strength correlation with esophageal acid exposure and number of GERs. Dietary fiber consumption correlated inversely with total number, weak acid and high GERs.

***Keywords:*** Gastroesophageal reflux, GERD, meal, nutrition, energy value, fat, alcohol, dietary fiber, acid reflux, weak-acid reflux, acid exposure time

---

***PP-864***

## *A Case of psoas abscess secondary to colon cancer*

**Derya Arı, Özlem Akdoğan, Yasemin Özin Özderin, Ömer Öztürk, Ferhat Bacaksız, Sinan Arı**

*Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*

***Introduction:*** Psoas abscess (PA) which has high mortality, morbidity rates is a rare disease generally diagnosed at a late stage. PA is classified as primary and secondary. Etiology of PA is unknown. Thought to be the result of hematogenous and lenfogenous spread of microorganism from the unidentified origin in the body. Crohn disease is the most common underlying pathology of secondary PA (60%). Other diseases accompanying PA are appendicitis (16%), colonic diseases (11%), disc infection, and osteomyelitis (10%) perirenal infection, after surgery and tuberculosis.

***Case:*** Sixty-five years old, male refers to the emergency room with fever and abdominal pain. At CT, 15X13X10 cm diameters psoas abscess was determined between right infrarenal area and inguinal canal superior. The abscess was drained externally

with a catheter. In drainage culture, E. coli production was determined, and ceftriaxone therapy started. At colonoscopy three separate tissue defect covered with granulation tissue with a diameter of 1.5 cm were observed, spontaneous purulent material was leaking from these tissue defects (PA penetration?) Right hemicolectomy was performed for the patient, and tissue diagnosis was well-differantiated appendix mucinous adenocarcinoma.

***Conclusion:*** In psoas abscess cases if diagnosis and treatment is delayed, the mortality rate is 100%. Death usually results because of septic complications. If there is suspicion PA USG and CT/MR should be performed. PA predominantly occur in male patients. Mean age of diagnosis 44-58 years old at developed countries; <20 years old at developing countries. Most common infectious etiology is S. aureus in primary PA; in secondary PA enteric bacteria and S. aureus determined mostly. Treatment of PA is urgent antibiotherapy and abscess drainage. Drainage can be made percutaneously or by surgery. In our case, percutaneous drainage failed, and after surgery, the diagnosis was colon cancer.

***Keywords:*** Colon Cancer, psoas abscess

***PP-865***

## *Prevalence of anti-gliadin antibody in patients with irritable bowel syndrome*

**Anam Ahmed, Alka Singh, Abhinav Anand, Ashish Agarwal, Ashish Chauhan, Mahendra Singh Rajput, Prasenjit Das, Vineet Ahuja, Govind K Makharia**

*All India Institute of Medical Sciences, New Delhi, India*

***Background/Aims:*** There is an overlap between symptom complex of irritable bowel syndrome (IBS) and non-celiac gluten sensitivity (NCGS). Patients with IBS has been shown to have response to gluten-free diet (GFD). The diagnosis of NCGS is made on the basis of Salerno criteria which includes response in symptoms to GFD and recurrence of symptoms on reinstitution of gluten-containing diet. It is unclear, which patient with IBS is likely to have NCGS and likely to respond to GFD. Anti-gliadin Ab has been suggested to be one of the serum biomarkers for NCGS.

***Materials and Methods:*** 288 patients with IBS (diagnosed and subclassified by Rome IV criteria) were screened for the IgA anti-gliadin Ab (AGA), IgG-AGA and anti-tissue transglutaminase ab (anti-TG2) using commercially available ELISA kits. Patients having either IgG AGA or IgA AGA or IgA anti-tTG Ab underwent endoscopic examination and small intestinal mucosal biopsies were obtained from them as well.

***Results:*** Of 288 screened IBS patients, forty-eight (16.7%) had had either one or more serological test positive; IgA-AGA (22/288; 7.64%), IgG-AGA (18/288; 6.25%), both IgA & IgG AGA (5/288; 1.7%) and TG2-Ab (2/288; 0.69%).

***Conclusion:*** Forty-six (15.9%) patents with IBS have one of the serological marker of NCGS and those with a positive anti AGA antibody, a therapeutic trail of GFD may be initiated to confirm presence of NCGS in them.

***Keywords:*** Irritable bowel syndrome, gluten free diet, anti gliadin antibody

---

***PP-866***

## *Non-immunological biomarkers for assessment of villous abnormalities in patients with celiac disease*

**Alka Singh, Anil K Verma, Prasenjit Das, Shyam Prakash, Vishnubhatla Sreenivas, Lalit Kumar, Vineet Ahuja, Govind K Makharia**

*All India Institute of Medical Sciences, New Delhi, India*

***Background/Aims:*** Demonstration of villous abnormalities is an essential component of diagnosis of celiac disease (CeD) which requires duodenal biopsies. There is a needfornon-invasive biomarker(s) which can predict the presenceof villous abnormalities.

***Materials and Methods:*** Levels ofplasmacitrulline, plasma I-FABP, andserum Reg1α were estimated in 131 treatment naïve patients with CeD, 216 healthy controls and 133 disease controls. The levels of these biomarkers and their cyclical pattern was validated in a predicted model of enteropathy (n=70). Optimum diagnostic cutoff values were derived and the results were further validated in a prospective validation cohort including of 104 patients with CeD and controls.

***Results:*** While level of plasma citrulline was significantly lower, the levels of plasma I-FABP and serum Reg1α were significantly higher in patients with CeDin comparison to controls, and their levels reversed after a gluten-freediet. In the model of predicted enteropathy, a sequential decrease and then increase in the level of plasma citrulline was observed; such a sequential change was not observed with I-FABP and Reg1α. The diagnostic accuracy for prediction of presenceof villous abnormality was 89% and 78% if citrulline level was <30μM/L and I-FABP levels was >1100pg/ml, respectively. The results were validated in a prospective validation cohort with a sensitivity and specificity of 79.5% and 83.1%, respectively for predicting villous abnormalities of modified Marshgrade >2 at calculated cut-offs values of citrulline and I-FABP.

***Conclusion:*** Plasma citrulline <30μM/L is the most consistent, highly reproducible non-invasive biomarker which can predict the presenceof villous abnormality and has the potentialfor avoiding duodenal biopsies in 78% patients suspected to have CeD.

***Keywords:*** Citrulline, small intestine, diagnostic accuracy, celiac disease

---

***PP-867***

## *Endoscope damage appears related to commencement of endoscopy training and varies between specialties*

**Clement Wu[1], Ravishankar Asokkumar[1], Mohammad Nabil Fadhil Bin Hairodin[1], Nenny Suzanah Bte Sellamat[1], Christopher Khor[1], Roy Soetikno[2]**

*[1]Singapore General Hospital, Bt Merah, Singapore*
*[2]Veterans Affairs, Palo Alto, San Francisco*

***Background/Aims:*** The cost of endoscope repair is largely unknown. Data describing the type, frequency, cost and factors leading to endoscope damage are not available. We sought to understand the cost of endoscope repair. We hypothesize that there is a seasonal correlation to the damages and they occur more frequently when the new training period begins.

***Materials and Methods:*** We reviewed endoscope repair data available in our unit, a large referral hospital, from 1st January 2017 to 30 September 2018. We classified the damages as 1) Endoscope leakage; 2) Cracked objective lens; 3) Fluid invasion; 4) Broken insertion tube/umbilical cord/ angulation knobs, and 5) Clogging of air and/or water channels. We categorized them as minor (≤ 3 days) and major (>3 days) according to time to repair. We also collected data on the specialty of the last endoscopist when the scope had to be returned, and overall cost of repair.

***Results:*** 18,008 gastroscopies and 22,883 colonoscopies were performed during the study period. 58 gastroscope and 49 colonoscope repairs were required. Common causes of the damage were leakage (71%), damage to insertion tube/angulation knob (16%), clogging of channels (6%), and cracked lens (6%). Half of the leakages occurred at the distal end of the scope and majority of these damages were major (96%). Mean repair duration was 65±59 days. Gastroscope damage significantly increased in the third quarter (41%, p=0.004) and colonoscope damage increased during the second quarter (41%, p=0.01), corresponding to when new trainees start performing the respective endoscopy. Gastroscopes were more likely damaged by gastroenterologists (64% vs 36%, p=0.05) and colonoscopes more likely damaged by surgeons (84% vs.15%, p=0.001). During the study period, total endoscope repair cost was $109,314 (average: $148/endoscope/month) for gastroscopes and $96,925 (average: $146/endoscope/month) for colonoscopes.

***Conclusion:*** The cost of endoscope damage is modest. The damages appear to vary between specialties. There is a cyclical pattern that is temporarily related to new trainees starting using the endoscopes. Education and training may reduce these variations

***Keywords:*** Endoscopy, damage, training, education, specialty

---

***PP-868***

## *Does alexithymia predict the psychiatric comorbidity among healthy carriers of Hepatitis B?*

**Nermin Gündüz [1], Doğan Nasir Binici[2], Özge Timur[2]**

*[1]Department of Psychiatry, Kütahya Health Sciences University School of Medicine, Kütahya, Turkey*
*[2]Department of Internal Medicine, Erzurum Regional Training and Research Hospital, Erzurum, Turkey*

***Background/Aims:*** Investigating the relevant literature, we observed that studies generally were performed among heterogeneous groups infected with HBV including both carriers and chronic HBV. There are very few studies carried among only asymptomatic HBsAg carriers that infected with HBV but not diagnosed with chronic hepatitis. The alexithymia concept has gained clarity and integrity as a result of clinical and phenomenological observations of psychosomatic patients experiencing difficulty in recognizing and expressing feelings and having imaginative experiences that are limited, reality-based and contain utilitarian content and means "absence of words for feelings". We aimed to research the comorbid psychiatric disorders and alexithymia and to identify whether alexithymia and accompanying somatic symptoms predict the presence of psychiatric diagnoses or not among HBsAg carriers.

***Materials and Methods:*** 89 healthy carriers of Hepatitis B patients and 93 healthy individuals were included to study. Following a semi-structured psychiatric interview based on by a psychiatrist, Hamilton Depression Rating Scale (HAM-D), Hamilton Anxiety Rating Scale (HAM-A), Toronto Alexithymia Scale (TAS) were applied.

***Results:*** When the distribution of SCID I psychiatric diagnoses among healthy HBsAg carriers examined, majority of the patients (n=53, 59.6%) had any psychiatric diagnosis. The logistic regression model evaluating whether number of somatic symptoms and alexithymia predict the psychiatric diagnosis, we observed that number of somatic symptoms predicted the presence of psychiatric diagnosis (Odds ratio=2.762, p<0.001).

***Conclusion:*** Psychiatric disorders are common among HBsAg carriers. Our findings revealed that alexithymia may potentiate the occurrence of psychiatric disorders in such patients and that it requires more consideration. So, our results suggest that HBsAg carriers need multidisciplinary evaluation including hepatology, infection clinics and psychiatric liaison.

***Keywords:*** Healthy carriers of Hepatitis B, alexithymia, depression, anxiety, somatization

***PP-869***

## *Percutaneous transhepatic obliteration is useful in the eradication of anatomically challenging high risk duodenal varices*

**Clement Wu[1], Keng Sin Ng[1], John Hsiang[2]**

*[1]Changi General Hospital, Singapore*
*[2]Sengkang General Hospital, Singapore*

Duodenal variceal bleeding is a rare but commonly fatal complication of portal hypertension. Endoscopic therapy is usually the initial treatment option, but results are often unsatisfactory. Percutaneous transhepatic obliteration (PTO) can be used to successfully eradicate anatomically challenging high risk duodenal varices. A 70 year old Chinese male presented with left sided limb weakness. MRI Brain showed multifocal right hemispheric infarcts, consistent with a cardioembolic stroke secondary to newly diagnosed atrial fibrillation with high thromboembolic risk (CHADSVasc 6). His past history is significant for Child-Pugh A cryptogenic liver cirrhosis with recurrent bleeding distal duodenal varices two months prior, requiring multiple sessions of endoscopic variceal sclerotherapy for hemostasis. Obliteration of duodenal varices was performed to lower bleeding risk before starting anticoagulation. This was attempted endovascularly as previous endoscopic hemostasis was challenging and varices were still present. Balloon-occluded retrograde transvenous obliteration (BRTO) was unsuccessful due to the absence of meso-caval collaterals. Venogram revealed a prominent tributary arising from superior mesenteric vein (SMV) supplying the duodenal varices. PTO of the tributary performed with cyanoacrylate glue and microcoils successfully eradicated the duodenal varices, with no recurrence of GI bleeding for more than a year. Endoscopy allows direct visualization of duodenal varices, but intervention is challenging when the lesion is in the distal duodenum. BRTO allows distal duodenal varices to be reached but may be limited by anatomical variations. Though more invasive, PTO is a feasible option in patients with difficult anatomy and few collaterals, where BRTO would be very challenging. Individualized treatment according to patient, lesion and operator characteristics is important to optimize outcomes in this heterogenous and rare presentation of a common disease.

***Keywords:*** Percutaneous transhepatic obliteration, duodenal varices, endoscopically refractory variceal bleeding, hemostasis, BRTO

---

***PP-870***

## *Prevalence of NAFLD among adult patients with pre-diabetes mellitus at the out-patient clinics*

**Dennis Martin Castro, Maria Honolina Gomez, Stephen Wong, Ann Margaret Navarroza, Neil Amba, Gian Carlo Carpio**

*University of Santo Tomas Hospital, Manila, Philippines*

***Background/Aims:*** The prevalence of nonalcoholic fatty liver disease (NAFLD) can be as high as 70% in patients with diabetes. However, its prevalence in patients with pre-DM is unknown. We aimed to determine the prevalence of and predictors of NAFLD in pre-diabetes patients.

***Materials and Methods:*** This was a prospective, cross-sectional study conducted at out-patient clinics from June-November 2017. Consecutive patients diagnosed to have pre-diabetes based American Diabetes Association guidelines hadliver ultrasound, liver and metabolic laboratory assessments, and anthropometric measurements (BMI, waist circumference, hip circumference). Patients with NAFLD on ultrasound underwent Fibroscan and controlled attenuation parameter (CAP).

***Results:*** A total of 66 patients were included, with 40.9% having NAFLD. Among patients with NAFLD, only 19 (70%) had a fibroscan done, with a mean score of 6.13 +/-2.39 kpa and CAP score of 251.6 +/-38.3. Distribution of fibrosis stage was: F0-F1=73.7%, F2=10.5%, F3=10.5%, and F4=5.3%, while steatosis was: S0=26.3%, S1=15.8%, S2=36.8%, and S3=21.1%. Patients with NAFLD had higher triglyceride (181+/-199 vs 108+/-75 mg/dL;p=0.07), AST (36.5+/-15.7 vs

30.7+/-9.7 IU/l;p=0.160), ALT (41.4+/-25.1 vs 31.4+/-17.6 IU/l; p=0.120) levels. On multivariate analysis, hemoglobin (OR 1.1;95% CI=1.011-1.137; p=0.019) and AST (OR 1.1;95% CI=1.006-1.107; p=0.028) were identified to be an independent predictor of NAFLD.

***Conclusion:*** The prevalence of NAFLD among pre-diabetics is high at 40.9%. A significant proportion of pre-DM NAFLD patients had moderate to severe steatosis (S2-S3) while 16.7% already had significant fibrosis. Early diagnosis of NAFLD in pre-diabetic patients and evaluation with fibroscan and CAP is essentia so that early intervention can be instituted.

***Keywords:*** NAFLD, pre-diabetics, fatty liver

---

***PP-871***

## *Serum or urinary neopterin which is the best for evaluate disease activity in inflammatory bowel disease?*

**Hülya Çetinkaya[1], Zeynep Melekoğlu Ellik[1], Kerem Kenarlı [2], Serkan Duman[1], Ebru Evren[3], Zeynep Ceren Karahan[3], Murat Törüner[1]**

*[1]Department of Gastroenterology, Ankara University School Medicine, Ankara, Turkey*
*[2]Department of Internal Medicine, Ankara University School Medicine, Ankara, Turkey*
*[3]Department of Medical Microbiology, Ankara University School Medicine and Ibn-i Sina Training and Research Hospital, Central Microbiology Laboratory, Ankara, Turkey*

***Background/Aims:*** Inflammatory bowel disease (IBD) is characterized by periods of symptomatic remission and relapse. Diagnosis and assessment of IBD are based on clinical evaluation, serum parameters, radiology, and endoscopy. Neopterin is produced and released from activated phagocytic cells, particularly macrophages induced by interferon-gamma produced by active CD4+T cells activated by TH1. The aim of this study was to compare serum and ürine neopterin levels with endoscopic findings and CRP values.

***Materials and Methods:*** 41 patients with ulcerative colitis (UC) and 41 patients with Crohns disease (CD) were included in the study between January-June 2019. Clinical, biochemical evaluation, upper gastrointestinal endoscopy and colonoscopy were done in each subject. Endoscopic score, clinical activation score, CRP, ESR, urinary and serum neopterin levels were evaluated.These patients were divided into two groups as active and remission groups according to their endoscopic and clinical scores. In UC; 23 active (43.9%), 18 (56.1%) remission; in CD 19 (46.3%) active, 22 (53.7%) remission patients were evaluated.

***Results:*** There was no significant difference between Hb level, creatinine level, ALT, AST, GGT, ALP values (p≥0.05); CRP levels were higher in active disease group of both diseases. (p=0.001 for UC, p=0.043 for CD).Urine and serum neopterin levels were also compared with CRP, ESR and Endoscopic / Clinical activation scores and their sensitivity was calculated. (The results will be shared after the statistical analysis is completed.)

***Conclusion:*** Neopterin level alone does not provide an adequate evaluation but it can be used as an aid in the determination of disease activity such as CRP, calprotectin etc. markers in cases where endoscopic evaluation cannot be performed or when endoscopic evaluation is suspicious. There was also a statistical difference between urinary and serum neopterin levels.

***Keywords:*** Inflammatory bowel disease, neopterin, CRP

***PP-872***

# *Electrophysiological and permeability properties of esophageal epithelium in patients with achalasia before and after baloon dilatation*

**Sezgi Kıpçak, Pelin Ergun, Ahmet Ömer Özütemiz, Serhat Bor**

*Division of Gastroenterology, Ege University School of Medicine, Ege Reflux Study Group, İzmir, Turkey*

***Background/Aims:*** Achalasia is a rare disorder with an incidence of approximately 1.6 cases per 100,000. The etiology of the disease especially changes at the epithelial permeability is not known. The aim of this study was to investigate the electrophysiological and permeability characteristics of esophageal epithelium in patients with a diagnosis of achalasia before and after baloon dilatation compared with healthy controls and gastroesophageal reflux phenotypes.

***Materials and Methods:*** 27 patients (F: 17, M: 10, mean age 46±15) diagnosed with upper gastrointestinal endoscopy with distal esophageal biopsies, timed barium swallow radiology, high resolution esophageal manometry (HRM) (according to Chicago 3.0v; 4 Type 1; 20 Type 2; 3 Type 3). 23 healthy volunteers and 60 erosive gastroesophageal reflux patients (ERD A / B: 48, ERD C / D: 12) were also included. Upper gastrointestinal endoscopy, HRM, 24h pH-MII studies were performed in both healthy volunteers and ERD patients. Esophageal electrophysiology and permeability measurements were performed before the treatment of 27 achalasia patients. 14 patients were also evaluated 2-3 months after the balloon dilatation. 3-4 esophageal biopsies were put into the mini-Ussing chambers to measure the transepithelial resistance (TEER), potential difference and tissue permeability via fluorescein diffusion within 2 hours.

***Results:*** TEER and permeability of esophageal epithelium of Achalasia patients were not significantly different compared to the healthy volunteer group. However, when compared to the ERD group, the tissue resistance of achalasia patients were significantly higher and the permeability of the esophageal epithelium was significantly lower. Both tissue resistance and permeability of the esophageal epithelium after treatment were significantly higher, epithelial permeability was significantly lower in Achalasia patients compared to healthy volunteer and ERD groups. When pre-and post-treatment were compared, an increase in tissue resistance and decrease in epithelial permeability were determined after treatment, but no significant difference was found (Table).

***Conclusion:*** Patients with achalasia have less gastric reflux however the mechanical trauma and long-term stasis of food inside the esophagus might have a noxious effect on the epithelium. Different than the expectations, pre-treatment findings of esophageal epithelial resistance and tissue permeability were similar with HC. GERD is not uncommon in Achalasia patients following treatments. In spite of that, no significant change was determined when the patients esophageal epithelial resistance and permeability were compared before and after treatment with balloon dilatation. Based on these results, we assume that, an adaptive cytoprotective mechanism might develop in the esophageal epithelium of achalasia patients

***Keywords:*** Achalasia, mini ussing chamber, electrophysilogy

| | Tissue resistance (ohm) (mean±sd) | Permeability (pmoll) (mean±sd) |
|---|---|---|
| Healthy volunteer | 166.8±47.2$^{§§§}$ | 36.9±13.8$^{§§}$ |
| Achalasia (pre- treatment) | 188.3±55.7 | 33.6±15 |
| Achalasia (post- treatment) | 216±80 | 22.2±9.1 |
| ERD A/B | 133.2±34.4*$^{§§}$ | 49.6±28.4**$^{§}$ |
| ERD C/D | 112.1±38.6*$^{§}$ | 60.1±40.5***$^{§§§}$ |

*p<0.001 vs Achalasia (pre- treatment), **p<0.005 vs Achalasia (pre- treatment), ***p<0.05 vs Achalasia (pre- treatment)
$^{§}$p<0.001 vs Achalasia (post- treatment), $^{§§}$p<0.005 vs Achalasia (post- treatment), $^{§§§}$p<0.05 vs Achalasia (post- treatment)

***PP-873***

## *A Rare Cause of Non-Cirrhotic Portal Hypertension*

**Joana Carvão, Vítor Pereira, João Adriano Sousa, Nélia Abreu, Antonio Oliveira, Carla Sousa Andrade, Ana Capelinha, Fátima Carneiro, Luis Jasmins**

*Hospital Central Do Funchal, Funchal, Madeira*

We report the case of an otherwise healthy 57-year old female patient who presented with a one-year history of pruriginous generalized cutaneous rash, uncharacteristic recurrent abdominal pain associated with diarrhea, asthenia and a progressive increase in the abdominal volume. On physical examination the patient had a generalized erythematous punctiform cutaneous rash, hepatosplenomegaly, axillary, inguinal lymphadenopathy and ascites. Her blood tests revealed normocytic normochromic anaemia, monocytosis, eosinophilia, thrombocytopenia, international normalized ratio (INR) prolongation and elevation of cholestasis parameters (alkaline phosphatase 1277 U/L and gama-glutamyl transferase 324,5 U/L. Thoracic-abdominal-pelvic computed tomography (CT) scans showed homogeneous hepatosplenomegaly (no signs of chronic liver disease), retroperitoneal, retrocrural, mesenteric, celiac, axillary, inguinal lymphadenopathy and moderate ascites. Due to an initial suspicion of lymphoproliferative disease an excisional inguinal lymphadenopathy biopsy is performed with findings compatible with a reactive/inflammatory ganglia. Bone marrow biopsy and aspirate suggest a granulomatous disease. Also, skin biopsy reveals inflammatory alterations. Upper endoscopy showed small esophageal varices and signs of portal hypertensive gastropathy. Analysis of the ascitic fluid revealed a predominance of mononuclear cells a serum ascites albumin gradient of 19 g/L and therefore non-cirrhotic portal hypertension was deemed as a probable. Abdominal doppler ultrasound showed signs of portal hypertension without thrombosis of the spleno-portal axis. Also, laboratory studies for chronic hepatopathy, infectious agents and angiotensin converting enzyme were negative. A percutaneous liver biopsy was performed which revealed the presence of numerous mastocytes (C-KIT +), sometimes in an atypical form, and serum trypsin levels > 20 ng/ml – compatible with systemic mastocytosis. (1 major and 2 minor WHO criteria). With this case the authors want to highlight a rare cause of non-cirrhotic portal hypertension where the liver pathological analysis was crucial for the final diagnosis.

***Keywords:*** Systemic mastocytosis, non-cirrhotic portal hypertension

---

***PP-874***

## *Systematic review with meta-analysis: Endoscopic resection for non-polypoid dysplasia in inflammatory bowel disease*

**Wei Chen, Yuelun Zhang, Yi Zhao, Aiming Yang, Jiaming Qian, Dong Wu**

*Peking Union Medical College Hospital, Beijing, China*

***Background/Aims:*** Patients with inflammatory bowel disease (IBD) have a higher risk of colorectal cancer (CRC) especially for those with dysplasia which can be divided into polypoid and non-polypoid dysplasia. According to ECCO and SENIC guidelines, endoscopic resection is recommended for polypoid dysplasia but remains controversial for non-polypoid dysplasia. This systematic review and meta-analysis aims to evaluate efficacy and safety of endoscopic treatment for the non-polypoid dysplasia in patients with long-standing IBD.

***Materials and Methods:*** Medline, Embase, Cochrane and clinicaltrials.gov registry were comprehensively searched. Studies reporting short-term or long-term outcomes of endoscopic resection for patients with IBD and non-polypoid dysplasia were included. Pooled estimates of curative, R0, en-bloc resection rates, and CRC, metachronous dysplasia, local recurrence rates were calculated.

***Results:*** Of the 872 initial studies identified, 8 met the inclusion/exclusion criteria. These included a total of 279 patients with IBD and non-polypoid dysplasia. The curative, R0 and en-bloc resection rate were 0.73 (0.51-0.87), 0.69 (0.57-0.79) and

0.85 (0.67-0.94) respectively with local recurrence rate of 0.06 (0.04-0.10). CRC and metachronous dysplasia incidence rates were pooled as 16.32 (6.13-43.48) and 108.70 (52.29-225.92) per 1000 years of patient follow-up.

***Conclusion:*** By comparing the data of polypoid dysplasia and taking in the management preferences of patients, its reasonable for patients with non-polypoid dysplasia and IBD to choose the endoscopic resection especially by ESD and intensified colonscopic surveillance as the primary management.

***Keywords:*** Endoscopic resection, non-polypoid dysplasia, inflammatory bowel disease

---

***PP-875***

## *Lichenoid esophagitis pattern: A rare cause of dysphagia*

**Joana Carvão[1], Armando Peixoto[2], Elisabete Rios[2], Fátima Carneiro[2], Guilherme Macedo[2]**

*[1]Hospital Central Do Funchal, Funchal, Madeira*
*[2]Hospital São João, Portuguese*

We report a case of a healthy 42-year old female patient that was referred to our gastroenterology department with a 4-month history of weekly symptoms of dyspagia (solids and liquids), food impaction and abdominal pain. Her physical exam and laboratory test were unremarkable. An upper endoscopy is performed that revealed a normal esophageal mucosa. Upper and lower third esophageal biopsies are taken that reveal in, an intraepithelial location, numerous lymphocytes, apoptotic epithelial cells (Civatte bodies) and in the conjunctive tissue, fibrosis with a moderate inflammatory infiltrate and artefacts compatible with lichenoid esophagitis pattern (EPL). Direct immunofluorescence studies (IgG, IgM, IgA, fibrinogen, C1q, C3c) were all negative. Autoimmune and virological studies were also negative. A high resolution manometry (HRM) is equally performed and showed an elevated integrated relaxation pressure (IRP) and preserved peristalsis compatible with the diagnosis of esophagogastric junction outflow obstruction syndrome according to the Chicago Classification. Due to the impact of the patients symptoms in her quality of life, a trial of oral prednisolone is started with a significant improvement of overall symptoms. At 8-week follow up, esophageal biopsies show a significant histological improvement with overall regression of the lymphocytic infiltrate and only rare Civatte bodies. HRM revaluation also showed a normalization of the IRP and normal peristalsis. With this case the authors pretend to highlight the rarity of the EPL diagnosis and the importance of esophageal biopsies on the diagnostic approach of these patients. Additionally, we describe for the first time, the manometric patterns of this entity that may justify esophageal symptoms if not adequately addressed.

***Keywords:*** Dysphagia, lichenoid esophagitis pattern

---

***PP-876***

## *Drug-induced esophageal injuries-a rare presentation mimicking acute coronary syndrome*

**Guda Roro[1], Abate Shewaye[2], Liu Louis[3], Geir Folvik[1]**

*[1]Department of Internal Medicine, Gastroenterology Unit, Addis Ababa University College of Health Sciences, Addis Ababa, Ethiopia*
*[2]Division of Gastroenterology, Haukeland University Hospital School of Medicine, Bergen, Norway*
*[3]University of Toronto, Toronto, Canada*

Pill esophagitis is an important but underdiagnosed clinical condition due to lack of awareness. Delayed diagnosis can result in unnecessary extensive investigations as well as severe complications due to continued exposure to the offending drug. We present a 50-year-old driver with hypertension and dyslipidemia brought to our hospital with a history of severe retroster-

nal chest pain, vomiting, diaphoresis and syncopal attack. Initial investigations for acute coronary syndrome were negative. Esophagogastroduodenoscopy revealed severe esophageal kissing ulcers strongly suggestive of pill-induced esophagitis due to treatment with Doxycycline which was taken for an acute, febrile illness.

***Key words:*** Pill-induced, esophagitis, coronary

---

***PP-877***

## *Coffee exosomes; Are they the secret heroes?*

**Murat Kantarcıoğlu[1], Gülşen Yıldırım[1], Serpil Yanbakan[1], Deniz Sarıca[1], Serpil Taşdelen[1], Üstün Ezer[1], Emel Bayrak[1], Seckin Öztürk[2], Emin Kürekçi[1]**

*[1]Lösante Hospital, Ankara, Turkey*
*[2]Middle East Technical University Central Lab., Ankara, Turkey*

***Background/Aims:*** Coffee consumption is inversely associated with total and cause-specific mortality. Meta-analyses revealed the beneficial and protective effects of coffee on hepatic fibrosis and cirrhosis in chronic liver diseases. The studies performed with ingredients like caffeine, caffeoyl, kahweol, trigonelline, etc. are not able to elucidate the responsible mechanisms. Exosomes are small, membrane-coated cargo packages secreted by prokaryote and eukaryote cells. Exosomes regulate intercellular communication and affect cellular metabolic activities even between different species. In this study, we have isolated the coffee exosomes from green and roasted hot coffee drinks, which we hypothesized the responsible product for the beneficial effects of coffee.

***Materials and Methods:*** We used two separate methods for exosome isolation from ground, roasted and green coffee beans. Hot coffee drinks were prepared from roasted and green coffee samples. Size Exclusion Chromatography (SEC) and commercial kit isolation methods were used to isolate exosomes. The exosomes were identified by transmission electron microscopy (TEM) scanning and quantified with commercially available quantification kit. UV-Vis Spectrophotometer was also used for identification and quantification of exosomes. Characterization of exosome micro-RNA contents was performed through Gene chip analyses-micro array methods.

***Results:*** TEM scanning analysis demonstrated round shaped nanoparticles with sizes ranging from 40-100 nm. Both SEC and kit isolated exosome samples showed maximum absorbance in 227,5 nm. in UV-Vis Spectrophotometer analysis. Hot coffee drink prepared from green beans contained a greater number of exosomes than roasted ($6,3x10^{10}$ nanoparticles (np)/ml and $5,4x10^{10}$ np/mL respectively). Kit isolation was more efficient than the SEC method when the harvested exosome amounts were compared ($7,6x10^{10}$ np/mL and $4,4x10^{10}$ np/mL respectively). Isolated exosome Micro-RNAs were characterized with miRNA 4.0 Expression Microarray Assay.

***Conclusion:*** For the first time in literature, coffee exosomes were identified. These nanoparticles may have therapeutic effects on chronic liver diseases. Therefore, experimental studies needed to be carried out on disease models in order to demonstrate the efficacy.

***Keywords:*** Coffee exosomes, isolation, liver diseases

---

***PP-878***

## *Celiac disease adherence test does not detect short term dietary adherence to gluten-free diet*

**Wajiha Mehtab[1], Vikas Sachdev[2], Namrata Singh[2], Alka Singh[2], Anita Malhotra[3], Vineet Ahuja[2], Govind Makharia[2]**

*[1]Department of Home Science, University of Delhi, New Delhi, India*
*[2] Department of Gastroenterology and Human Nutrition Unit, All India Institute of Medical Sciences, New Delhi, India*
*[3]Lakshmi Bai College, University of Delhi, New Delhi, India*

***Background/Aims:*** Gluten-free diet (GFD) is the only available treatment for celiac disease (CeD). Available methods to assess GFD compliance are insufficiently sensitive to detect occasional intentional/unintentional dietary gluten transgressions that may cause gut mucosal damage. Gluten immunogenic peptides (GIP) are gluten fragment, resistant to gastrointestinal digestion and are excreted from the body through urine and stool. We aimed to assess the level of compliance, celiac symptom index score and GIP in patients with CeD.

***Materials and Methods:*** Patients with CeD following GFD for more than one year, and following regularly in Celiac Disease Clinic at our institution were recruited. They were assessed for clinical response to GFD using celiac symptom index score (CSI score) and adherence to GFD using celiac disease adherence test (CDAT). They also underwent GIP testing in the urine using morning's first urine sample using GIP kit (Biomedal, Spain). The technique involved in GIP urine is immune-chromatographic test, which can detect as low as 25 mg of gluten in the urine. A single green line indicates that no gluten was detected in the sample (negative), but if two lines appear – one green and one red-there is detection of gluten (positive), indicating a gluten intake within the last 24-48 hours.

***Results:*** Overall 85 patients (47 females and 38 males; mean age-29.78 ± 10.23 years) with mean follow-up of 6.78±2.3 years were included. Out of them, 59 (69.4%) had good compliance and 44 (51.7%) had good clinical response to GFD, as assessed by CDAT and CSI respectively. However, GIP was detected in 35 (41.1%), suggesting poor short term adherence to GFD. Of these 35 patients, 20 (57.2%) had good compliance to GFD as per CDAT. There was good correlation between lower CDAT score and lower CSI score ($p<0.01$). Those who had GIP detected in urine, CSI score was higher in them ($p<0.01$).

***Conclusion:*** Seventy percent of Indian patients with CeD have good adherence to GFD. Despite being adherent to GFD, approximately 40% of them are exposed to gluten inadvertently. Efforts should be taken to control inadvertent intake.

***Keywords:*** Celiac disease, gluten immunogenic peptides, gluten free diet, adherence

---

***PP-879***

## *A new scoring model for the prediction of intra-hospital mortality in cirrhotic patients with spontaneous bacterial peritonitis*

**Joana Carvão[1], Nélia Abreu[1], Vítor Pereira[1], Helder Cardoso[2], Carla Sousa Andrade[1], Luis Jasmins[1], Guilherme Macedo[2]**

*[1]Hospital Central Do Funchal, Funchal, Madeira*
*[2]Hospital São João, Portuguese*

***Background/Aims:*** Spontaneous bacterial peritonitis (SBP) is a frequent cause of decompensation in liver cirrhosis and a potentially life threatening condition with an estimated mortality of 20%. The available scoring models for mortality prediction in cirrhotic patients with bacterial infections are the same as for the general population, such as the recently validated quick sequential organ failure assessment (qSOFA). We aimed to identify risk factors for the intra-hospital mortality in cirrhotic patients with SBP and develop a more tailored scoring model for that prediction.

***Materials and Methods:*** Clinical, laboratory and microbiological data of all patients admitted to a gastroenterology department with the diagnosis of SBP, between January 2014 – December 2016, were retrospectively collected. Variables found to be associated with intra-hospital mortality in the univariate analysis were analyzed by the method of multivariate logistic regression analysis to create a scoring model. The discrimination ability of our model, SIRS and qSOFA were assessed with the area under the receiver operating characteristic (AUROC).All tests were two-tailed and p values <0.05 were considered significant. The statistical analysis was performed using SPSS V.23.0 statistical package.

***Results:*** We included 80 SBP episodes. The patients had a mean age of 57(±9) years of which 80% were male. Most patients (86%) had alcohol-related liver disease with a mean MELD-Na score of 24 (±7) points. Of the total of SBP

episodes, 54% were nosocomial and 53% had a positive bacterial culture of the ascitic fluid of which 7% were multi-drug-resistant. A 3rd generation cephalosporin was used in 81% of the cases. During hospitalization the mortality rate was 28%. Non-survivors had higher rates of previous SBP episodes (p=0.033), nosocomial SBP episodes (p=0.001) and septic chock (p<0.001) than survivors. Also, non-survivors had higher MELD-Na (p<0.001), SIRS (p=0.004) and qSOFA (p<0.001) scores than survivors. Similar findings were observed with serum creatinine (p=0.002) and serum CRP (p=0.003) values on admission. MELD-Na (HR 1,28 p=0.003), nosocomial aetiology (HR 13.9 p=0.005) and qSOFA (HR 9,74 p=0.007) were independent risk factors for predicting intra-hospital mortality in the created scoring model. Our model had a significantly greater discrimination for intra-hospital mortality (AUROC=0.917) than qSOFA, MELD-Na and SIRS alone (AUROC=0.819, 0.798, 0.754, respectively).

***Conclusion:*** Our results demonstrate that the association of liver severity scores and etiology of acquisition of infection to the general sepsis scoring system leads to a more accurate prediction model for intra-hospital mortality in SBP.

***Keywords:*** Spontaneous bacterial peritonitis, qSOFA

---

***PP-880***

## *Natural product from Indian traditional medicines used clinically for treatment of cirrhosis of liver*

**Prakash U. Tahiliani**

*Prime Ever Ayurvedic Research Laboratories, Navsari, Gujarat, India*

***Background/Aims:*** As there is no promising drug available for treatment of liver cirrhosis, since 14 Oct 2014, we have curiously used a Novel Formulation of Indian Traditional Medicine (NFTM) in 24 patients to treat Cirrhotic Liver.

***Materials and Methods***: Longitudinal Clinical Observational Study was planned to treat Liver Cirrhosis patients at our Clinic in city of Navsari Gujarat India. Majority of the patients were given outdoor treatment, hospitalization was required only when grave complications were present. All patients were investigated for Liver Function Tests (LFTs) including Ultra Sound Imaging and Fibroscan.

***Results***: All patients presented with Decompensated Liver Disease with complications. Mild to huge Ascites, Pedal/Ankle oedema was present in 14 patients. Loss of appetite was chief complaint by all patients. 2 patients had pruritus. Hb was 7.8 to 9.2 gm%, Total WBC count 13500 to 18000 per micro L of blood in 16 patients, ESR was 38 to 80 mm after 1 hour in 18 patients. S. bilirubin was very high in 2 patients 61 mg / dL and 39.7 mg/dL, in 22 patients bilirubin was 1.4 to 8.9 mg/dL. SGPT and SGOT were in normal levels in 15 patients, raised in 9 patients. Other various LFTs were pointing to presence of Cirrhosis of Liver. In addition to Cirrhosis, 1 patient had Hepato Cellular Carcinoma, 1 MDR Vivax malaria, 2 MDR Falciparum malaria. On starting treatment with NFTM, patients got relief in all symptoms. Earliest noteworthy finding in all 24 patients was normalization of appetite and improvement in general condition. All patients had uneventful recovery and symptomatic medication required was negligible. 3 patients having malaria as co-morbidity were cured simultaneously with NFTM only. Pruritus is relieved in 1 patient. As of now, 14 patients have become stable. Average duration of total treatment has been 12 to 20 months. There is no relapse in any patient as per clinical and investigatory parameters in 6 to 18 months after stopping all medicines. No adverse effects were observed in any patient. NFTM is presumed to have Immuno-Modulatory action. Clinical data related to NFTM were presented in London conference Beating Malaria – 2015, organized by EuroSciCon.

***Conclusion***: We should work on natural products by Reverse Pharmacology Approach and develop a novel remedy which can give promising results against Infectious, Malignant and Auto-Immune disorders.

***Keywords:*** Cirrhosis of liver, MDR malaria, NFTM

***PP-881***

## *Popular, habitual foods and carcinogen risk: Nitrosamines*

**Mehmed Kürşad Türkdoğan, Mustafa Yaman, Rabia Koşkulu, Sümeyye Kılıç, Ömer Faruk Mızrak**

*Department of Nutrition and Dietetics, Sabahattin Zaim University Faculty of Health Sciences, İstanbul, Turkey*

***Background/Aims:*** Nowadays, many food species are consumed extensively and habitually in people and their carcinogen risk are not investigated sufficiently. Nitrosamines (NA) are well-known human carcinogens related to many systemic tumors' development. We aimed to research NA levels in many habitual and popular foods in terms of actual increase in many cancers worldwide.

***Materials and Methods:*** Four species of volatile NA (N-nitrosodimethylamine "NDMA", N-nitrosopyrrolidine "NPYR", N-nitrosodiethylamine" NDEA" and N-nitrosopiperidine "NPIP") were analyzed in 9 types of processed meats, pickled vegetables, potatoes (fried, chips), roasted eggplant and ketchup samples. NA in the foods were extracted with acetonitrile. Following this process, nitrosamines were converted to fluorescence derivatives with densyl chloride after nitration with hydrogen bromide and quantified by High performance liquid chromatography (HPLC).

***Results:*** We have observed that all volatile NA were significantly increased especially in turkish processed meats (Adana Kebab, Heat-processed Soujouk (Fried), Sausage, Chicken Doner, Pastrami, Hamburger Patty), Potatoes (French Fries) and chips, Pickled vegetables (Green Pepper etc.), Roasted Eggplant and ketchup samples (Figure).

***Conclusion:*** We have detected significant elevation of volatile nitrosamines in national popular and habitual food items. Regular analytic control of this food group and nutritional education of people about risk of dietetic carcinogens are the mainstays in the prevention of cancer development.

***Keywords:*** Nitrosamines, food, carcinogen

---

***PP-882***

## *Colonoscopic profile of lower gastrointestinal bleeding in children: A single centre experience from North India*

**Anuradha Rai, Santosh Mittal**

*Chacha Nehru Bal Chikitsalaya, New Delhi, India*

***Background/Aims:*** Most of the patients with lower gastrointestinal (GI) bleeding require endoscopic evaluation of the lower GI tract after bowel preparation. Aim of this study was to assess the common etiologies and colonoscopic profile of lower GI bleeding in children and the role of colonoscopy in reaching to diagnosis.

***Materials and Methods:*** In this study, we did a retrospective review of prospectively collected deta on a clinical case performa of children between 6 months to 12 years of age who presented with lower GI bleeding and underwent diagnostic and therapeutic colonoscopy in the division of Gastroenterology of Pediatrics department of Chacha Nehru Bal Chikitsalaya, a tertiary care centre in north India from January 2018 to May 2019. Demographic profile, clinical features, and endoscopic and histopathological findings were analysed.

***Results:*** Of the total 167 patients reviewed, 45 (26.94%) were female and 122 (73.05%) were male, with a male-to-female ratio of 2.71:1.0. The highest incidence of lower GI bleeding was between the ages of 6 and 10 years (54%). The presenting symptoms were constipation with hematochezia in 102 (61.01%), hematochezia alone in 48 (28.74%),

bloody diarrhea in 13 (7.78%), and rectal prolapse in 4 (2.39%) patients. Common accompanying symptom was mass protuding throgh anus after defecation in 53 (31.73%), abdominal pain in 26 (15.56%),and weight loss in 13 (7.78%) patients.Per rectal exmination suggested rectal polyp in 51 (30.53%) patients,rectal prolapse in 3 (1.79%) and anal tag with tear in 3(1.79%) patients. The most common colonoscopic finding was rectosigmoid polyps (94 cases, 56.28%) followed by findings suggestive of infective colitis of left colon (17 cases,10.17%) infective colitis with polyp (4 cases,2.39%) internal hemorrhoids (8 cases, 4.79%), rectal ulcers (5 cases, 2.99%), and findings suggestive of ileocecal tuberculosis (2 cases, 1.19%). The most common histopathological finding was juvenile polyps which was in all our cases of rectosigmoidal polyp (94 cases,56.28%) followed by infective colitis (17 case,10.17% of whic 7 cases, 4.19% were amebic colitis), solitary rectal ulcer (5 cases, 2.99%), ulcerative colitis (2 cases, 1.19%) and tuberculosis (2 cases,1.19%).

***Conclusion:*** Constipation and hematochezia is one of the most common clinical presentations. Juvenile colorectal polyps constitute the most important colonoscopic finding in cases of chronic lower GI bleeding in children. Based on the etiological profile, constipation and colorectal polyps with a male preponderance contributes significantly to lower GI bleeding in children. Colonoscopy remains a useful and safe procedure in children for evaluation of lower GI bleeding both from the diagnostic and therapeutic points of view.

***Keywords:*** Lower gastrointestinal bleeding, children, colonoscopy, India

***PP-883***

## *LDLR gene exon 12 RS 688 polymorphism causes to increase in susceptibility to hepatitis C*

**Zuhal Mert Altıntaş[1], Sevcan Tuğ Bozdoğan[2], Engin Altıntaş[1]**

*[1]Mersin University School of Medicine, Mersin, Turkey*
*[2]Çukurova University School of Medicine, Adana, Turkey*

***Background/Aims:*** We investigated the effect of the genetic polymorphisms of the LDLR receptor, which plays a role in hepatocyte entry of hepatitis C virus.

***Materials and Methods:*** 200 chronic hepatitis C patients and 162 healthy controls were included in the study. The LDLR gene [Exon12 (rs688); Exon13 (rs5925) and Exon18 (rs5742911)] polymorphisms were studied by PCR RFLP method.

***Results:*** The study and control groups were similar in age and gender. The study group consisted of 92 men and 108 women, with a mean age of 59.7 years. In contrast, 60 males and 102 females were in the control group and the mean age was 58.7 ($p>0.05$). While in HCV group LDLR exon 12 gene distribution was 46 in CC, 112 in CT, 42 in TT; in control group respectively 81, 58 and 21 ($p<0.001$). When LDLR exon 13 gene distribution was examined, in HCV group, 41 in CC, 83 in CT and 76 in TT were found and 4, 26 and 132 respectively in the control group ($p<0.001$). LDLR exon 18 gene distribution was similar in HCV group and control group (in HCV group CC 12, CT 88, TT 102 and, respectively 7, 59 and 96 in control group ($p<0.254$).

***Conclusion:*** LDLR exon 12 gene polymorphism (rs688) appears to lead to susceptibility to hepatitis C, whereas LDLR exon 13 gene polymorphism (rs5925) appears to be protective against hepatitis C.

***Keywords:*** Hepatitis C, LDLR gene, polymorphism

***PP-884***

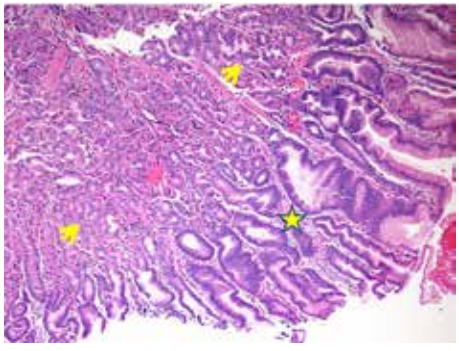
## *Giant gastric heterotopia (GH) in the duodenal bulb (DB): A possible cause of gastric outlet obstruction (GOO)*

**Arcelia Guerson Gil, Vikram Singh, Ali Kazerouni Timsar, Lawrence Brandt**

*Montefiore Medical Center, Bronx, NY*

The presence of gastric mucosa within the DB usually is an incidental finding during endoscopy and is seen in up to 8.9% of cases. While GH usually produces no symptoms, our patient presented with symptoms of GOO, which we attributed to the large size of the GH lesion, occupying >50% of the DB. This case of DH merits attention due to its uncommon appearance and presentation. A 47-year-old woman with a history of insulin-dependent diabetes mellitus presented with abdominal pain, nausea, and post-prandial emesis for 1 year. Physical exam was normal, without a succussion splash or post-prandial abdominal distention. Hematologic testing showed a Hb 9.8 mg/Dl. Other labs, including basic metabolic panel and liver biochemical tests, were normal. Abdominal CT without IV contrast was non-diagnostic. EGD identified a single polyp in the DB measuring 1.5 cm x 2 cm (Fig 1). Additionally, there was a more distal, irregular, cratered mass in the duodenum that was surrounded by a "carpet" of mucosal nodularity consistent with the appearance of Brunners gland hyperplasia (BGH) (Fig 2). Both areas were biopsied. The pathology of the polyp showed gastric heterotopia (Fig 3) and the cratered mass showed peptic duodenitis. GH is seen throughout the adult GI tract but most commonly in the duodenum, with an incidence of 0.5% to 8.9%. In most cases, GH causes no symptoms and is undiagnosed. When symptomatic, GH may cause abdominal pain from mucosal irritation secondary to the release of hydrochloric acid from parietal cells. Rarely, as in our patient, obstructive symptoms may be present. For symptomatic patients, proton pump inhibitors (PPIs) are the cornerstone of treatment as they help to decrease acid secretion and, therefore, mucosal irritation. After EGD, our patient was started on a PPI and rapidly had symptomatic improvement. We suspect that her abdominal pain resolved due to decreased acidity within the DB, and that obstructive symptoms improved secondary to decreased inflammation within the DB. We present this case as a rare example of GOO caused by GH.

***Keywords:*** Heterotopia, duodenal bulb, polyp



***PP-886***

## *Does intense exercise affect vitamin K2 Levels by regulating intestinal flora in ski crossers?*

**Nilgün Işıksaçan[1], Mualla Biçer Gençbay[1], Soner Akkurt[2], Mustafa Yaman[3], Gülçin Şahingöz Erdal[1], Pınar Kasapoğlu[1]**

*[1]Bakirköy Dr Sadi Konuk Training and Research Hospital, İstanbul, Turkey*
*[2]Erciyes University School of Medicine, Kayseri, Turkey*
*[3]İstanbul Sabahattin Zaim University, İstanbul, Turkey*

***Background/Aims:*** It is known that the number of microorganisms in the intestinal tract ranging from $10^{13}$-$10^{14}$ has a function in many metabolic events such as the synthesis of carbohydrates, amino acids and vitamins and this makes intestinal microbiology the center of attention. Menaquinones (vitamin K2) are synthesized in the gastrointestinal mucosa, particularly Bacteroides, Enterobacter, Veillonella, and Eubacterium lentum. Fat-soluble vitamin K is critical for healthy bone development, as well as its role in coagulation. Few studies in recent years have shown that cardiovascular exercises such as jogging, ski cross, cycling, aerobic exercise or swimming cause changes in body homestasis and thus alter microbiotic content. In this study, we investigated the effect of exercise on vitamin K2 synthesized by intestinal bacteria in ski crossers before and after two weeks of intensive exercise.

***Materials and Methods:*** A total of 31 ski crosser (15 female/16 male) with a mean age of 22 (21-23) years were included. Vitamin K2 levels were measured by high performance liquid chromatography (Shimadzu Corporation, Kyoto, Japan).Wilcoxon sign rank test was used for comparisons. $p<0.05$ was considered statistically significant. The analyses were performed with NCSS 11 (Number Cruncher Statistical System, 2017 Statistical Software).

***Results:*** There was a statistically significant difference between vitamin K2 levels before and after exercise (p=0.001).The median vitamin K2 level of 12.17 (6.68-23.29) mcg/mL after exercise was found higher than the level of before exercise [4.35 (3.02-8.08) mcg/mL].

***Conclusion:*** Cardiovascular exercise results in electrolyte changes, increased oxidative stress, intestinal permeability, muscle damage and increased systemic inflammatory response. Intestinal microbiota content may vary when trying to adapt to body changes. Exercise and microbiology studies in humans are limited. In a study performed in rats was shown that Lactobacillus, Bifidobacterium, Blautia,Eubacterium genus increased while Clostridium and Enterococcus bacteria decreased. In our study, it was shown that the level of vitamin K2 increased in ski crosser after exercise and this is thought to be achieved by regulating the intestinal microbiata and changing the bacterial content.

***Keywords:*** Ski Cross, vitamin K2, exercise

---

***PP-887***

## *Early gastrointestinal effects of lipopolysaccharide-induced sepsis in a rat model*

**Raquel Abalo[1], Adrián Sánchez[1], Gema Vera[1], Marta Castro[2], Marta Valero[2], Mª Isabel Martín-fontelles[1]**

*[1]Universidad Rey Juan Carlos, Calle del Tulipán s/n Móstoles - Madrid*
*[2]Universidad De Zaragoza, IUI Mixto Agroalimentario de Aragón (IA2)*

***Background/Aims:*** Sepsis is an important clinical problem, not yet solved in our society. Mortality is high, particularly if accompanied by septic shock. The aim of this research was to characterize the early gastrointestinal effects of sepsis associated with lipopolysaccharide (LPS) administration in an animal model.

***Materials and Methods:*** Adult male Wistar rats received an intraperitoneal injection of LPS (5 mg/kg) or saline (0.9% NaCl, 1 mL/kg). Different parameters were evaluated: bedding intake (as a marker of nausea in non-vomiting animals) and water ingestion for 2 hours (experiment A); colonic sensitivity to mechanical stimulation (experiment B); colonic motility in organ bath (experiment C). Weight and size of the stomach and caecum, and consistency of small intestinal contents were also determined at sacrifice.

***Results:*** Compared with control animals, rats treated with LPS increased bedding and water intake for 1 and 2 hours, respectively (experiment A). Colonic sensitivity to mechanical stimulation was not modified by LPS at 2-3 hours after administration (experiment B). In experiment C, the most outstanding effects of LPS were a decrease in frequency and an increase in the colonic peak pressure associated with peristaltic contractions. At sacrifice (around 3.5 hours after administration), stomach and caecum weights were higher in LPS-treated than in control animals. The small intestinal contents were mostly liquid in LPS-treated rats.

***Conclusion:*** Our results suggest that nausea and thirst are early signs of sepsis, associated with water accumulation within the gastrointestinal tract (stomach, small intestine and caecum) and alterations in colonic motor activity. In contrast, changes in colonic

mechanical sensitivity might require longer exposure/higher doses of LPS to develop. Although relatively unspecific, the early symptoms identified here may be useful to detect patients at risk for sepsis development. The rat may be a valid model in the search for new anti-sepsis strategies.

***Keywords:*** Sepsis, colon, animal model

---

***PP-888***

## *Estimation of gluten content in unlabeled and labeled gluten-free food products and commonly used food items consumed by celiac disease patients*

**Wajiha Mehtab[1], Vikas Sachdev[2], Alka Singh[2], Namrata Singh[2], Anita Malhotra[3], Vineet Ahuja[2], Govind Makharia[2]**

*[1]Department of Home Science, University of Delhi, New Delhi, India*
*[2]Department of Gastroenterology and Human Nutrition Unit, All India Institute of Medical Sciences, New Delhi, India*
*[3]Lakshmi Bai College, University of Delhi, New Delhi, India*

***Background/Aims:*** Gluten free diet (GFD) is the cornerstone treatment for patients with Celiac disease (CeD). However, there is a paucity of data on the type of GF food available in India, those consumed by Indian CeD patients and more importantly the extent of gluten contamination therein. We evaluated the gluten content in labeled and unlabeled GF food products currently available in Indian market.

***Materials and Methods:*** A total of 515 processed and commercially available GF products (including both naturally [n=250] and certified labeled GF products [n=265]) were randomly collected from supermarkets of a metropolitan city (Delhi) of India. Those not available in stores, were purchased from e-commerce sites. Gluten level in food was determined by Ridascreen Gliadin sandwich R5-enzyme-linked immunosorbent assay (R-Biopharm AG, Germany). As per Codex Alimentarius, European Commission Regulation and Food Safety and Standard Authority of India, "gluten-free" labeled products must not contain >20 mg/kg of gluten.

***Results:*** Of two hundred and sixty five samples of labeled GF products, 37 samples (13.9%) had gluten content >20 mg/kg (range: 25.68-713.74 mg/kg) and 228 items had gluten content within permissible limits (range: 1.41-19.5 mg/kg). Among non-labeled natural GF foods, twenty eight samples (11.2%) had gluten content >20 mg/kg (range: 23.2-168.87 mg/kg), while 222 items had gluten content <20 mg/kg (range: 1.27-14.28 mg/kg). Contaminated products most commonly belonged to cereal and its products like pasta/macaroni, cereal based snack foods and pulse products. Contamination levels were negligible in companies producing only GF foods. Products not manufactured in India were found to be free of contamination.

***Conclusion:*** A substantial number (13.9%) or 1/7$^{th}$ of labeled GF products available in India have high gluten content. Patients with CeD should be aware about this fact and ingestion of contaminated GF food products may be the reason for non/partial response in them. Strict policies need to be made for manufacturers of gluten free food items in India.

***Keywords:*** Labeled gluten free, celiac disease, contamination

---

***PP-889***

## *Quantitative evaluation of biofeedback treatment with Turkish MYMOP2 Questionnaire in Patients having chronic anorectal problems*

**Özdal Ersoy[1], Yasemin Ecem Temel[2], Fatih Oğuz Önder[1], Gürhan Şişman[1], Hülya Över Hamzaoğlu[1], Nurten Turkel Küçükmetin[1], Suna Yapalı[1], Murat Saruç[1], Arzu Tiftikçi[1], Hakan Ümit Ünal[1], Eser Vardareli[1], Bahattin Çiçek[1], Nurdan Tozun[1], Aysun Bozbaş[1], Ahmet Karaman[1], Bulent Değertekin[1], Cem Aygün[1]**

*[1]Acıbadem University School of Medicine, İstanbul, Turkey*
*[2]Department of Pelvic Physiotherapy, Acıbadem Fulya Hospital, İstanbul, Turkey*

***Background/Aims:*** Changes in self-complaints are important outcomes for the assessment of treatment modalities in patients with chronic anorectal disorders. Due to lack of reliable tests assessing the biofeedback therapy, patient-reported outcomes are gaining importance in the gastroenterology practice. Aimed to identify the effectiveness of biofeedback treatment by using turkish MYMOP2* questionnaire which quantifies self-changes with simple scoring **Ersoy Ö, Temel YE, Alptekin HK. Validity and reliability of the measure yourself medical outcome profile 2 (MYMOP2) questionnaire among Turkish patients having anorectal disorders Turk J Gastroenterol. 2019 Jan;30(1):28-32.*

***Materials and Methods:*** Thirty seven volunteers with anorectal disorders were prospectively included. Each patient was enrolled into a symptom specific pelvic floor muscle training biofeedback program. The subjects were administered turkish MYMOP2 questionnaires before the treatment session (initial visit) and at the control follow-up visits (the first and second months of treatment, via e-mail or telephone calls). Higher scores denote worse outcomes in the turkish MYMOP. Patients are also all asked by a nurse specialist with a plain question Is your main complaint going better or worse/unchanged under this treatment? Without knowing their score of MYMOP2. The answers are noted as better or worse/unchanged.

***Results:*** A study sample of 37 participants completed the initial form. Five patients were lost at follow-up and are excluded. Major symptom of the patients was chronic constipation where as soiling type fecal incontinence and chronic anorectal pain were the others. According to patients responses to the nurse, in 10 out of 32 (31%) patients, biofeedback did not change or make better their main symptoms, where their scores from MYMOP questionnaire did not show any change or decrease (remain high)) as well. MYMOP2 scores decrease in patients in whom biofeedback treatment improved their symptoms. Correlation between the scores of MYMOP2 and patients self-subjective outcomes is high.

***Conclusion:*** Outcomes of biofeedback therapy for anorectal disorders are still debatable in terms of interpreting the results. Considering its short application time and sensitivity with the differences, the MYMOP2 questionnaire can be a very useful outcome measure in clinical gastroenterology practice in terms of diagnosis and follow up after biofeedback treatment.

***Keywords:*** Biofeedback, MYMOP, anorectal

---

***PP-890***

## *A rare cause of duodenal ulcer: Regressed malign melanoma metastasizing duodenum*

**Derya Arı[1], İsmail Hakkı Kalkan[2], Nesrin Turhan[3], Volkan Gökbulut[1]**

*[1]Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*
*[2]Department of Gastroenterology, TOBB University of Economics and Technology School of Medicine, Ankara, Turkey*
*[3]Department of Pathology, Ankara City Hospital, Ankara, Turkey*

***Introduction:*** Malignant melanoma constitute approximately 1-3% of all gastrointestinal tract cancers. Although primary malignant melanoma of the gastrointestinal (GI) tract is rare, GI tract is one of the most common malignancies to metastasize to the gastrointestinal (GI) tract. Small bowel is the most common location of melanoma metastases in the gastrointestinal tract (GI). Here in we report our case admitted with dyspeptic complaints and iron deficiency anemia in whom endoscopic findings guided us to diagnose his regressed temporal region malign melanoma of the head.

***Case:*** A 66-year-old male patient admitted to our outpatient clinic with complaints of dyspepsia, right paraumblical pain, dyspnea and fatigue. Labarotary investigation confirmed iron deficiency anemia with a hemoglobin level of 7 gr/dl. An upper gastrointestinal endoscopy revealed a 2 cm in size, deep, black grounded ulcer in contralateral wall of papilla. Endoscopic biopsies confirmed metastatic malign melanoma of duodenum. The patient was referred to dermatology department and a regressed malignant melanoma was detected in a depigmented area in the temporal region of head.

***Conclusion:*** Diagnosis of gastrointestinal metastases of malignant melanoma is often late and in patients who undergo emergency surgery. Our patient was noteworthy to report since he could be diagnosed with malignant melanoma after detection of his metastatic lesion in duodenum.

***Keywords:*** Malignant melanoma, duodenal, metastatic

***PP-891***

## *Endoscopic mucosal resection of neuroendocrine tumor of duodenal bulb by band ligation technique: A case report with a follow up of 18 months*

**Umid Kumar Shrestha, Gopi Aryal**

*Nepal Mediciti Hospital, Bhaisepati, Lalitpur, Nepal*

***Introduction:*** Duodenal neuroendocrine tumor (d-NET) is a rare solitary lesion arising from the mucosa and submucosa of the duodenum, which is found incidentally during upper gastrointestinal endoscopy. Endoscopic mucosal resection (EMR) has been described as the treatment of choice for such tumor of less than 20 mm in size in the absence of metastasis, but the choice of method of EMR has not been described, whether conventional EMR or band ligation assisted EMR.

***Case:*** In our study, we present a patient of 51-year-old male, who presented with pain over epigastrium and upper gastrointestinal endoscopy revealed a small submucosal lesion of 10 mm with a broad base in the duodenal bulb. The endoscopic ultrasound showed the lesion arising from the echo layer three. The biopsy was taken which showed the d-NET. The computed tomography of abdomen did not show any evidence of distant metastasis.

***Conclusion:*** The EMR of d-NET was done by band ligation technique. During the procedure, the submucosal injection of 10 mL of Normal Saline along with Adrenaline (1:20,000) and Methylene Blue was given to raise the lesion, which was then grabbed with the band ligation, followed by its resection with the snare. The hemoclips were applied in the mucosal defect area of the lesion. There were no any complications. The biopsy from the resected duodenal lesion confirmed the d-NET with the margin free of the tumor. The patient was followed at 6, 12 and 18 months. During the follow up visits, the repeat upper gastrointestinal endoscopy

did not show recurrence of the lesion and there was no any evidence of distant metastasis either. Hence, EMR by band ligation technique may be done successfully to ensure the complete removal of the small d-NET with a broad base.

***Keywords:*** Duodenal neuroendocrine tumor, endoscopic mucosal resection, band ligation technique

***PP-892***

## *Primary sclerosing cholangitis: About 15 cases*

**Rhita Alaoui Mdaghri, Imane Benelbarhdadi, Sanaa Lajouad, Nawal Lagdali, Camelia Berhili, Mohamed Bourahma, Fatima Zahra Ajana**

*Medical Clinic C-University Hospital Centre, Ibn Sina-Mohamed V University, Rabat, Morocco*

***Background/Aims:*** Primary sclerosing cholangitis (PSC) is a rare cholestatic liver disease characterized by inflammatory and fibrotic damage to the medium and large bile ducts. It is often associated with chronic inflammatory bowel diseases. The purpose of this work is the study of the different clinical, morphological, therapeutic and evolutionary aspects of this entity.

***Materials and Methods:*** This is a monocentric and descriptive retrospective study covering a period of 16 years from January 2003 to July 2019, covering all cases of primary sclerosing cholangitis. Clinical, biological and morphological data from the included patients were analyzed.

***Results:*** 15 cases of Primary Sclerosing Cholangitis were collected. The average age was 42.8 years +/-11.3. The mode of disclosure of the disease was clinical in 60% of cases. The remaining 40% PSC was revealed during a liver check-up or imaging during the course of chronic inflammatory bowel disease (IBD). Cholangio-MRI showed primary sclerosing cholangitis stage I in 13.3% of cases and primary sclerosing cholangitis stage III in 6.6% of cases. A liver biopsy reveals intrahepatocytic cholestasis (36.4%), PSC cirrhosis stage (36.4%), steatosis (18.2%), and PSC Ludwig stage III (9%).An association with an IBD was found in 73.3% of cases. It was Crohns disease type in 66.6% of cases, and hemorrhagic rectocolitis type in 6.67% of cases. An association with autoimmune hepatitis was found in 6.6% of cases. Treatment with urso-desoxy-cholic acid was initiated in 93.3% of patients. Symptomatic treatment of portal hypertension has been initiated whenever the indication has been placed. Seven of our patients have been lost sight of. The course of treatment was marked by the death of 2 patients. Sepsis in a cirrhotic Child C, and mesenteric ischemia in a patient with chronic inflammatory bowel disease. A nonresponse under treatment was noted in 3 patients, one of whom progressed to cholangiocarcinoma with hepatic metastases. A good evolution was noted in 3 patients.

***Conclusion:*** Primary sclerosing cholangitis is a rare condition. The value of the SR (M/W) and the association with IBDs are lower than those reported by the various literature series. These data require confirmation through more extensive prospective studies

***Keywords:*** Primary sclerosing cholangitis, chronic inflammatory bowel disease (IBD), cholangio-MRI

***PP-893***

## *Quality of life improvement after directly acting antiviral therapy in chronic hepatitis C infected patients*

**Mridula Sharma[1], Nikhil Mahajan[2], Mahesh Patil[2], Sunil Reddy[2], Gaurav Ratnaparkhi[2], Astha Shukla[1]**

*[1]Meerut College, India*
*[2]Jaswant Rai Speciality Hospital, India*

***Background/Aims:*** Extra-hepatic manifestations of HCV result in poor health-related quality of life (HRQOL). The treatment of HCV infections has significantly changed with direct-acting antiviral agents (DAAs). The present study was aimed to assess the effect of DAAs on HRQOL in chronic HCV patients.

***Materials and Methods:*** HRQOL was assessed in 1200 control subjects and 1168 adult outpatients of HCV in the period from Jan 2016 to Jan 2019 by a short form questionnaire (SF-36) values. HRQOL in HCV was done at baseline and at 24 weeks. LFTs and quantitative HCV RNA were done at the baseline before treatment and after 6 months.

***Results:*** Baseline pre-treatment values of 1168 adult HCV patients with eight health concepts: physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal or emotional problems, emotional well-being, social functioning energy/fatigue, general health perception were compared with age and sex matched controls of 1200 normal subjects. The scores of 36 scales ranged from 0 to 100, with higher scores indicating better HRQOL. Compared with healthy controls, patients with chronic HCV at baseline had significantly lower HRQOL. Successful therapy with DAAs was associated with improvement in HRQOL and significant score improvement in all eight scales of the SF-36. The improvement was related directly to SVR achievement.

***Conclusion:*** Successful oral DAA provide meaningful improvement in HRQOL in patients with chronic hepatitis C. The effect of successful treatment indicates a direct relationship between the chronic infection and HRQOL.

***Keywords:*** Hepatitis C, directly acting antivirals

---

***PP-894***

## *Associations of chronic inflammatory bowel diseases and extradigestive tumors: About 27 cases*

**Lajouad Sanae, Lagdali Nawal, Berhili Camelia, Benelbarhdadi Imane, Borahma Mohamed, Ajana Fatima Zahra**

*Ibn Sina University Hospital Center, Rabat, Morocco*

***Background/Aims:*** The goal of our work is to describe the main characteristics of patients with associations of IBD and extradigestive tumors.

***Materials and Methods:*** Patients with IBD associated with extra digestive tumors were identified and included in this retrospective study from the IBD follow-up registries (CROHN and RCH) from 1990 to 2019.

***Results:*** Among 1369 cases of IBD, 27 IBD/Extra-digestive Smoking associations were observed with a prevalence of 2%. Of these 27 cases (19 female, 8 male), 17 had Crohns disease (CD) and 10 had hemorrhagic recto colitis (UC). The median age (years) of patients with this association was 37.1[23-38]. The extra-digestive tumors found associated with IBD were malignant in 54.2% of cases, their locations were in: 41.6% breast (malignant in 20.5%), 12.5% ovarian (malignant in 4.1%), 16.6% thyroid (malignant in 12.5%) and 29.1% miscellaneous (bladder carcinoma, cutaneous melanoma, pulmonary adenocarcinoma, prostate adenocarcinoma, liver angioma, cystic pancreatic tumor and cholangio-carcinoma). The diagnosis of extradigestive tumor was prior to that of IBD in 54% of cases, 16.7% were followed for IBD treated with salicylated derivatives and 29.3% were on immunosuppressants for which they had been stopped and switched to a salicylated derivative at tumor diagnosis (prostatic adenocarcinoma, skin melanoma, bladder carcinoma, malignant breast tumor and malignant thyroid tumor, cystic pancreatic tumor and benign ovarian tumor).

***Conclusion:*** Overall, the risk of developing an extra-digestive tumor in patients with IBD is no different from that of the general population and stopping the immunosuppressant at diagnosis could be of interest given its properties in the phenomenon of carcinogenesis.

***Keywords:*** Chronic inflammatory bowel doseases, Crohn, RCH, extradigestive tumors

***PP-895***

## *Duodenal perforation during endoscopic retrograde cholangiopancreatography*

**Malay Sharma, Sunil Reddy, Nikhil Mahajan, Mahesh Patil, Gaurav Ratnaparkhi**

*Jaswant Rai Speciality Hospital, India*

***Background/Aims:*** Endoscopic retrograde cholangiopancreatography (ERCP) is associated with complications which includes pancreatitis, haemorrhage, and perforation. Perforation is one of the most dreaded complication with an incidence of ~0.5%. Intubation related perforations during ERCP are known as Type I perforation and therapeutic intervention related perforations are known as Type II, III & IV perforations.

***Materials and Methods:*** A total of 21,800 ERCP were done from January 2007 to 2019 at a single-centre. A retrospective review of different types of ERCP related perforations was done. Type I perforation were detected on the basis of presence of web like appearance of duodenal submucosa or a frank gap in duodenal wall. Type II and IV were detected by endoscopic appearance, presence of air on fluoroscopy and presence of air in retroperitoneum on ultrasound x-ray or CT scan. A high index of suspicion by assistants and presence of blood in duodenum before sphincterotomy suggested higher possibility of Type I perforation.

***Results:*** A total of 333 perforation were detected. The frequency of different types of duodenal perforations were:
Type I 24 (6%)
Type II 109 (43%)
Type III 47 (12%)
Type IV 153 (39%)
The overall incidence of perforation was 1.5%. The incidence of perforation for type I, II & III was 0.16%

***Conclusion:*** The relative frequency of four types of duodenal perforations in literature are Type I ~ 9%, Type II ~ 68%, Type III ~ 11%, Type IV~ 8%. In this study the overall higher incidence of perforation was due to higher detection of type IV perforation by higher screening of suspicious case by immediate ultrasound in the endoscopy suite.

***Keywords:*** Endoscopic retrograde cholangiopancreatography (ERCP), duodenal perforation

---

***PP-896***

## *Safety and biodistribution of 68Ga-NOTA hexa-lactoside in six healthy volunteers*

**Mei-hui Wang Hung-man Yu [1], Ching-liang Kuo [1], Ruoh-fang Yen [2], Yao-ming Wu [2], Chun-hung Yang [1], Chen-hsun Chan [1], Ping-yen Wang [1], Chuan-yi Chien [1]**

*[1]Institute of Nuclear Energy Research, Taoyuan, Taiwan*
*[2]National Taiwan University Hospital, Taiwan*

***Background/Aims:*** The $^{68}$Ga-NOTA hexa-lactoside is a liver reserve biomarker measured by imaging of asialoglycoprotein receptor in the hepatocyte. This study assessed the safety and biodistribution of $^{68}$Ga-NOTA hexa-lactoside, including the normal reference range of biodistribution in the liver and its inter-individual variability in six healthy volunteers.

***Materials and Methods:*** Each healthy volunteer was given one intravenous injection of one human dose about 2 mCi of $^{68}$Ga-NOTA hexa-lactoside (40mg). Study endpoints included vital signs, ECG, physical examinations, laboratory examinations (including biochemistry, hematology and urinalysis), and collecting of adverse events. The average biodistribution in the liver will be established by performing the scintigraphy of $^{68}$Ga-NOTA hexa-lactoside in healthy volunteers.

***Results:*** The intravenous administration of $^{68}$Ga-NOTA hexa-lactoside did not have any toxicological finding. The imaging data showed $^{68}$Ga-NOTA hexa-lactoside primarily located in the liver in 10-64 min post-injection. The normal reference range of liver biodistribution in the whole body was 58±0.6%. The inter-individual variability is 1%. A transient low level of 43.6% in the liver measured in 0-8 min post-injection for $^{68}$Ga-NOTA hexa-lactoside imaging was due to the initial biodistribution.

***Conclusion:*** $^{68}$Ga-NOTA hexa-lactoside imaging was highly specific and majorly present in the liver. The phase 1 study results, together with preclinical assessment from single-dose toxicity test, cardiovascular and central nervous system and respiratory safety pharmacology studies, confirm the absence of toxicological concern with $^{68}$Ga-NOTA hexa-lactoside and corroborate its safety use in clinic.

***Keywords:*** Liver reserve measurement, $^{68}$Ga-NOTA hexa-lactoside imaging, biodistribution, safety study, phase 1 clinical trial, asialoglycoprotein receptor

---

***PP-897***

## *Correlation between the globe score and UK-CBP score during primary biliary cholangitis*

**Lajouad Sanae, Benelbarhdadi Imane, Berhili Camelia, Lagdali Nawal, Borahma Mohamed, Ajana Fatima Zahra**

*Ibn Sina University Hospital Center, Rabat, Morocco*

***Background/Aims:*** The aim was to study the correlation between the Globe-score, UK-Score during the PBC.

***Materials and Methods:*** This is a retrospective study of all PBC cases treated by AUDC at a dose of 13-15mg/kg over a 22-year period 1998-May 2019. The response to treatment was defined by the Paris II criteria at 1 year. The Globe-score and UK-PBC score have been calculated for all our patients. The statistical analysis of the data was done using the SPSS software. A Spearman correlation was sought between the Globe-score and UK-PBC score for good treatment responders and nonresponders. A combination of variables was considered statistically significant if $p < 0.05$.

***Results:*** During the study period, 90 cases of PBC were collected. There were 85 women and 5 men. The average age was 49±12.3. 52.3% patients (n=34) had a complete therapeutic response while 31 patients (47.7%) retained non-response after one year of AUDC treatment. The median survival value according to the Globe score for good responders at 5 years of age was 96.6% [93.8-96.7]; at 10 years of age was 91.2%[84.2-91.5]; and at 15 years of age was 84.8%[73.5-85.2] and for non-responders at 5 years of age was 75.7%[69.7-78.9]; at 10 years of age was 46%[37.5-52.8] and at 15 years of age was 24.4%[15.3-31.8]. The median UK-score value at 5 years; 10 years; 15 years for good responders was 1.8%[1.6-2.5]; 5.9%[5.2-8.2]; 10.7%[9.5-14.8] and for non-responders was 9.1%[6.7-9.9]; 27.4%[20.4-29.5]; 44.9%[34.6-47.8]. The correlation between the Globe-score and the UK-PBC score for good treatment responders and non-responders was statistically significant with a $p < 0.001$.

***Conclusion:*** This analysis confirms the correlation between the Globe-score, and UK-score during primary biliary cholangitis, hence the possibility of using a single score for survival assessment.

***Keywords:*** PBC, Globe-score, UK-score, Paris II criteria

---

***PP-898***

## *Does proton pump inhibitor (PPI) cause pneumonia by reducing neutrophil function?*

**Orhan Özatik[1], Fikriye Yasemin Özatik[2], Yasemin Tekşen[2], Ahmet Koçak[1], Suna Saygılı[1], İlknur Dağ[3]**

*[1]Department of Histology and Embriology, Kütahya Health Sciences University School of Medicine, Kütahya, Turkey*
*[2]Department of Pharmacology, Kütahya Health Sciences University School of Medicine, Kütahya, Turkey*
*[3]Eskişehir Osmangazi University Arum Research Center, Eskişehir, Turkey*

***Background/Aims:*** Proton pump inhibitors (PPI) are among the most commonly prescribed drugs in the world. PPIs have proven to be an effective treatment option in the treatment of many diseases including gastroesophageal reflux disease, peptic ulcer disease, Helicobacter pylori eradication therapy, dyspepsia and stress-induced hyperacidity. In the explanation of the increased mortality due to PPI use in patients hospitalized in the intensive care unit, it has been suggested that there is bacterial growth in the stomach due to decreasing gastric acidity, and that the reproductive bacteria reach the lungs and cause pneumonia. However, the fact that H2 receptor blockers used as an alternative to proton pump inhibitors also reduces gastric acidity has never been emphasized. In our study, we tried to determine the effects of PPIs on lung tissue and neutrophil leukocytes located outside the stomach.

***Materials and Methods:*** The experimental animals were divided into 3 groups; The animals in the first group were used as control group, animals in the second group received a single dose of i.p PPI daily for thirty days, Animals in the third group received a single dose of i.p H2 receptor blocker: Ranitidine (Ra) daily for thirty days. After euthanasia in all groups, lung tissues were removed and intracardiac blood samples were taken. The histopathological, electron microscopic and biochemical changes in the lung and blood samples were evaluated.

***Results:*** According to histopathological, electron microscopic and biochemical results obtained from PPI group, activity in neutrophil functions decreased.

***Conclusion:*** Pneumonia and sepsis due to PPI use is not caused by decreased gastric acidity but by decreased neutrophil leukocyte function.

***Keywords:*** Proton pump inhibitör, neutrophil, pneumonia

---

***PP-899***

## *Outcome and complications of laparoscopic appendectomy in Almak Nimir University Hospital Shendi University (SUDAN) (single centre experience)*

**Elssayed Osman, Mohanned Omer, Abdelrahman Babekir**

*Shendi University, Shendi, Sudan*

***Background/Aims:*** Acute appendicitis (AA) is the most frequent surgical entity in the emergency department, but its correct diagnosis remains challenging. laparoscopic appendectomy (LA) is a gold standard procedure even for patients with complicated appendicitis specially for the female in the reproductive age group. To evaluate the outcome and complications of laparoscopic appendectomy for acute appendicitis or suspected acute appendicitis in Almak Nimir University Hospital Shendi University (Sudan).

***Materials and Methods:*** A prospective observational study was conducted with 137 patients submitted to surgery for suspected AA using a laparoscopic approach.

***Results:*** Of the 137 patients analyzed,114 patients (83.2%) were female, 23 patients (16.8) were male. Age 11 to 20 year old was common age group affected (50%) followed by 21 to 30 years (35.2%). According to body max index47.3% of case were average weight, while overweight were 25.7%. 7 cases (5.1%) were converted to open surgery, and complications were observed in 5 cases (3.6%) cases. The study showed statistically significant negative-positive appendectomy (normal appendix but another pathology found) in doutfull cases.

***Conclusion:*** Laparoscopic appendectomy is the method of choice, owing to its many advantages, less invasiveness, faster recovery and adequate exploration of the entire abdominal cavity than to observation in unequivocal cases.. Laparoscopic surgery can serve as a diagnostic tool for patients with suspected AA specially for female, because of its low associated morbidity and mortality and it affords a direct diagnosis of the problem, allowing determination of the appropriate treatment. It is concluded that laparoscopic appendectomy should be offered as the method of choice in any patient population with suspicion of acute appendicitis.

***Keywords:*** Acute appendicitis, laparoscopic diagnosis

***PP-900***

## *Endoscopic treatment for afferent loop syndrome*

El Bacha Hicham[1], Leblanc Sarah[2], Dousset Bertrand[2], Prat Frederic[2]

[1] *Faculty of Medicine and Pharmacy of Mohamed V Rabat, Rabat, Morocco*
[2]*Assistance Publique – Hôpitaux de Paris, Paris*

A 67 year old man, who had undergone Child reconstruction for a pT3N1M0 cholangiocarcinoma two years earlier, was referred for cholangitis due to an afferent limb syndromeassociated with liver and peritoneal metastasis. Percutaneous transhepatic cholangiography found no biliary anastomotic stenosis. We performed an endoscopicgastrojejunostomy using a 15mm HotAXIOS ™ LAMS. The patient did well after the procedure. No cholangitis recurrence was noticed. A percutaneous drain initially placed was removed after one month and the patient was able to undergo chemotherapy without any recurrence of the afferent limb syndrome.

***Keywords:*** Afferent loop syndrome

---

***PP-901***

## *Correlation of residual parenchymal liver mass measured by 68Ga-NOTA-hexavalent lactoside imaging and indocyanine green test*

Mei-hui Wang, Chuan-yi Chien, Ping-yen Wang

*Institute of Nuclear Energy Research, Taoyuan, Taiwan*

***Background/Aims:*** Indocyanine green (ICG) is a tricarbocyanine dye. It is transported via albumin carry to organic anion transporter on hepatocyte membrane, then it is excreted completely via the bile without enterohepatic circulation and biotransformation. Since its uptake is rate limited by liver blood flow, the ICG test reflects the liver blood flow-dependent clearance and transporter capacity. However, ICG test is often lack of correlation with patient prognosis and mortality rate in predicting liver disease severity. Previous studies showed $^{68}$Ga-NOTA-hexavalent lactoside, a novel asialoglycoprotein receptor imaging biomarker, was promising in liver reserve measurement. This study aims to compare the correlation of residual parenchymal liver mass measured by the $^{68}$Ga-NOTA-hexavalent lactoside uptaken in hepatocyte and indocyanine green retained in serum.

***Materials and Methods:*** The hepatoma mice were established by Mahlavu or Hep 3b cell lines ($5x10^6$ cells each) implanted in the left lateral liver lobe of SCID mice and followed up by MRI. The ICG test was performed by detecting the ICG percentage retained in serum at 15 min post-intravenous injection of 10 mg/kg ICG, and the liver uptake was performed by the scintigraphy of $^{68}$Ga-NOTA-hexavalent lactoside and the liver biodistribution was measured by the radioactivity of liver uptake divided by total radioactivity in the body. The relative liver uptake was measured according to the relative liver biodistribution in comparison with normal mice.

***Results:*** Overall, there is a negative correlation between $^{68}$Ga-NOTA-hexavalent lactoside in liver uptake and the ICG retained in serum. Normal, Mahlavu and Hep 3b tumor-bearing hepatoma models have 6±8, 54±16, and 65±5% of ICG retained in serum; but have the relative liver uptake of $^{68}$Ga-NOTA-hexavalent lactoside of 100±12, 97±8, 39±16%, respectively. The high liver uptake in Mahlavu hepatoma group was due to their tumor grows toward the abdomen, but seldom invade itselfs liver region observed in MRI study. In contrast, Hep3b tumor grows aggressively on the orthotopic hepatoma region.

***Conclusion:*** The $^{68}$Ga-NOTA-hexavalent lactoside liver uptake was negatively associated with the ICG retained in serum, but surpassed the ICG test in accordance with the liver mass remained.

***Keywords:*** $^{68}$Ga-NOTA-hexavalent lactoside, asialoglycoprotein receptor imaging biomarker, indocyanine green test, residual parenchymal liver mass

***PP-902***

## *Comparison of two elastographs: Echosens & livertouch*

**Abdullah Mubin Özercan[1], Özgün Ömer Asiller[2], Mesut Gümüşsoy[1], Zeynep Melekoğlu Ellik[1], Aysun Calışkan Kartal[1], Serkan Duman[1], Necati Örmeci[1], Ramazan Erdem Er[1]**

*[1]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*
*[2]Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Hepatic fibrosis is a sign of advanced liver disease. Liver biopsy has already been gold standart. Non invasive methods are under evaluation for detecting fibrosis because of invasiveness of biopsy. Transient elastography is one of the most common non invasive methods. There are many calculations like APRI and FIB-4 for measure the degree of liver fibrosis. We aimed to compare of two different elastographs that echosens and livertouch according to FIB-4 and APRI scores.

***Materials and Methods:*** We have evaluated patients admitted for elastography by two transient elastographic equipments between march-june 2019. Their APRI and FIB4 scores was measured from laboratory surveys in 1 mounths to the procedures. Then we compare the results of livertouch and fibroscan according to FIB4 and APRI scores.

***Results:*** 32 (43.8%) women and 41 (56.2%) men were included the study (total 73 patients). Their mean age was 56,5. Etiologies of liver diseases were 25 (34.2%) hepatitis B, 23 (31.5%) non alcoholic hepatosteatosis, 7 (9.5%) criptogenic cirrhosis, 6 (8.2%) autoimmune hepatitis and 12 others. Mean controlled attenuation parameter (CAP) of echosens was 247,01 (±9,92) and of livertouch was 244,22 (±5,64). stiffness was 16,09 (±1,96) kPa in echosense and 15,54 (±1,14) kPa in livertouch. Difference between them was not significant (p=0,59 for CAP, p=0,82 for stiffness). Mean APRI score was 0,0067 (0,0008) and mean FIB4 score was 2,48 (±0,21). Correlation between ecosense stifness and APRI score was statistically significant (p=0,037) but correlation of livertouch was not significant (p=0,054). Correlation between FİB4 and both of them was statictically significant (p=0,004 for ecosens; p=0,014 for livertouch).

***Conclusion:*** Ecosense and livertouch are not different for asssesing liver fibrosis noninvasively. Because APRI and FIB4 scores are not gold standart to prove liver fibrosis, comparison of them according to histopathologic assesment of liver is necessary for further studies.

***Keywords:*** Echosens, livertouch, elastography

---

***PP-903***

## *Yield of endoscopy in admitted patients without overt gastrointestinal bleeding*

**Masood Karim, Abdullah Bin Khalid Zuberi**

*Aga Khan University Hospital, Karachi, Pakistan*

***Background/Aims:*** Upper and lower GI endoscopy procedures are mostly done as elective on outpatient basis except emergency cases but many admitted patients undergo these procedures with some indications.This study was conducted with the aim to assess the yield of endoscopy (upper GI or lower GI endoscopy or both) in admitted patient due to any indication without overt GI bleeding in the presence of multiple comorbids and disease severity.

***Materials and Methods:*** In this Retrospective cross-sectional study 105 were included over time period of 6 months, all patients were adult admitted in Aga khan university hospital. These patients underwent upper or lower GI endoscopy or both. Data was collected via chart review with endoscopic findings and analyzed on SPSS version 20.

***Results:*** Total 87 patients undergone procedure out of 105,18 patient refused for procedure. Mean age was 53+/-11, with 60% male. Indications of procedure were Anemia +/-positive FOB (42%), chronic dyspepsia (23%), Constipation (19%), weight loss (11%), others (5%). 49% patient were without any finding, rest were gastritis (25%), DU (7%), colonic polyps(4%), diverticulosis (6%),hemorrhoids (9%). There was significant association of NSAID, antiplatelet, warfarin with low HB and DU.

***Conclusion:*** This study showed around 40-50% patient had findings rest were without finding,most other procedure were intermediate risk and some were high risk.This study suggest endoscopy in inpatient especially critical patient is not appropriate to increase their misery with low diagnostic yield but it needs large sample size and outcomes to investigate further.

***Keywords:*** Upper GI endoscopy, lower GI endoscopy, anemia

---

***PP-904***

## *Pancreatic cystic lesions: Is contrast enhanced endoscopic ultrasound answering the clinical dilemma?*

**Irina Florina Cherciu Harbiyeli, Elena Tatiana Ivan, Irina Mihaela Cazacu, Elena Daniela Burtea, Mihaela Calita, Vlad Florin Iovanescu, Adrian Saftoiu**

*Research Center of Gastroenterology and Hepatology Craiova, University of Medicine and Pharmacy Craiova, Romania*

***Background/Aims:*** Cystic pancreatic lesions are frequently encountered in the general population, often in asymptomatic patients, being diagnosed incidentally due to the increased use of transabdominal ultrasound and other imaging methods. The subsequent clinical dilemma is concerning the broad differential diagnosis ranging from benign to malignant lesions. Contrast-enhanced endoscopic ultrasound(CE-EUS) is a new technique with unique advantages regarding the assessment of pancreatic lesions.

***Materials and Methods:*** We conducted a retrospective study, from January 2010 to January 2019, aiming to assess the entanglement of CE-EUS in describing pseudocysts and the benign/premalignant/malignant character of pancreatic cystic lesions. The investigations were completed using a Hitachi Preirus ultrasound machine and a Pentax echoendoscope. The contrast enhancer utilized was 4.8 mL SonoVue® (Bracco, Italy). The patients with presumed malignant cysts were referred for EUS-FNA in order to establish the final diagnosis and decide on the best treatment option. The CE-EUS criteria used for labeling the pancreatic cysts were: cyst size, presence and the size of mural nodules, calcifications, Wirsung duct enlargement, the absence of contrast enhancement in the cystic wall, septae, nodule as markers of pseudocysts and its presence in cystic neoplasia.

***Results:*** 72 patients with pancreatic cystic lesions were included in our study. 69% of the patients presented lesions with specific characteristics for pancreatic pseudocysts. 31% of the patients were categorized as suspected cystic lesions (serous cystadenomas, intraductal papillary mucinous neoplasm, mucinous cystic neoplasm, etc) out of which 15% showed a contrast enhancing effect. Endoscopic fine-needle aspiration could diagnose most of the malignant and relevant premalignant cysts.

***Conclusion:*** CE-EUS is a valuable method to distinguish malignant cysts from pancreatic pseudocysts. However, it is still not superior to pathological diagnosis and further studies are required in order to establish more specific parameters, the proper associations with other imaging techniques eventually non-invasive ones.

***Keywords:*** Pancreatic cysts, CE-EUS

***PP-905***

## *Interval cholecystectomy is associated with a high risk of complications in patients with mild acute biliary pancreatitis*

**Mukaddes Tozlu, Sencan Acar, Bilal Toka, Cengiz Karacaer, Ahmet Tarık Eminler, Mustafa İhsan Uslan, Aydın Şeref Köksal**

*Department of Gastroenterology, Sakarya University School of Medicine, Sakarya, Turkey*

***Background/Aims:*** Although current guidelines recommend cholecystectomy during the same admission in patients with mild biliary pancreatitis, it involves a waiting list in most of the time. The goal of this study was to assess the risk of recurrent biliary colic and complications such as cholecystitis, cholangitis and pancreatitis during the waiting period.

***Materials and Methods:*** A prospective observational study was conducted at a tertiary hospital from May 2018 to June 2019. The study group included patients who were admitted with a first episode of mild acute biliary pancreatitis and had gallstone and/or sludge diagnosed on imaging. Those with choledocholithiasis and/or cholangitis necessitating endoscopic retrograde cholangiopancreatography, moderate or severe pancreatitis and a history of cholecystectomy were excluded. Patients were followed up by telephone or information from hospital records when necessary for a maximum of 6 months after discharge or until cholecystectomy.

***Results:*** A total of ninety-six patients (31 male and 65 female) were included in the study. The mean age was 61.5±16.5 (range:20-92) years. The mean hospitalization stay was 5.1±1.5 (2-12) days. Although cholecystectomy was suggested to all of the patients, only 52 of them (54.1%) underwent cholecystectomy (20 patients in the first month, 28 in 1-3 months, 4 in 3-6 months). Patients were followed for a mean observation period of 6 months or until cholecystectomy. During the observation period, 40 patients (41.6%) developed complications which included biliary colic in 30 patients (31.2%), acute pancreatitis in 6 (6.2%), acute cholecystitis in 2 (2%) and choledocholithiasis in 2 (2%). The mean complication time was 39.6±64.9 days. During the waiting period; the complication rates were 20% (4/22, all biliary colic), 39.3% (11/28) and 50% (24/48) in the patients who had cholecystectomy in the first month, 1-3 months, 3-6 months and without cholecystectomy, respectively.

***Conclusion:*** Interval cholecystectomy was associated with a high risk of symptoms and complications during the waiting period in patients with mild acute biliary pancreatitis.

***Keywords:*** Acute pancreatitis, gallstone, cholecystectomy

---

***PP-906***

## *Leukemia infiltration of bowel in chronic lymphocytic leukemia*

**Derya Arı, Özlem Akdoğan, Ömer Öztürk, İlyas Tenlik, Sinan Arı, Ferhat Bacaksız, Muhammed Bahaddin Durak, Bayram Yeşil, Mahmut Yüksel**

*Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*

***Introduction:*** Chronic Lymphocytic Leukemia (CLL) is a disease characterized by accumulation of neoplastic B lmphocytes in lymphoid tissues like peripheral blood, bone marrow, lmph node, spleen and liver. Gastrointestinal (GI) manifestations have only very rarely been described in patients with CLL. GI infiltration may occur in all forms of leukemia and involve the GI tract from esophagus to rectum. Colonic involvement may present with abdominal pain, bleeding, diarrhea or obstruction, and manifest polypoid lesions with or without intussusception, colitis, and watermelon colon.

***Case:*** 2 years ago, 73 years old male patient had a diagnosis of CLL treated with Rituximab and CHOP regimen. At follow up, Hb was 11,2 gr/dl, Htc: 33,1 WBC: 2500 Platelet count: 60.000. Colonoscopy planned for patient because of wall thickness of 15 mm at 9 cm segment at ileocecal area seen on USG. 5-6 cm diameter tumoral mass was observed on cecum area at colonoscopy, multipl biopsies were taken.Tissue diagnosis was CLL (neoplastic B cells CD20, CD23 and Bcl2 positive,Ki67 proliferation index was%30).Rituximab and Bendamustin regimen started for patient.

***Conclusion:*** Despite the fact that CLL is a common disorder, extramedullary involvement, i.e., outside the blood, lymphoid tissue, and bone marrow, is quite rare. A systemic review of extramedullary involvement in the literature between 1972 and 2012 only revealed 192 such cases. Of those, only 26 (14%) were noted in the GI tract. Other areas of location were the skin (33%), central nervous system (27%), genitourinary system (10%),lung (5%),eye (5%), and other locations (6%).In the GI tract, case reports have documented involvement of the esophagus, stomach, gallbladder, liver, and anal canal. Several cases of colonic involvement from CLL have also been reported, including colitis with bloody diarrhea, colonic mass and rectal bleeding, anemia with microscopic involvement but no endoscopic involvement, colonic perforation, and colonic intussusception.

***Keywords:*** Chronic lymphocytic leukemia, colon, leukemia ınfiltration

---

***PP-907***

## *Neutrophil to lymphocyte ratio at day 3: A new prognostic tool in acute alcoholic hepatitis?*

**Rui Gaspar, Patricia Andrade, Ana Lopes Santos, Marco Silva, Susana Lopes, Guilherme Macedo**

*Centro Hospitalar São João, Portuguese*

***Background/Aims:*** Acute alcoholic hepatitis(AAH) is the most severe form of alcoholic liver disease, presenting a high short-term mortality. Different score systems have been used to assess the severity and predict the prognosis of patients with AAH. Neutrophil to lymphocyte ratio (NLR) is used as a marker of subclinical inflammation and has been recently used as a prognostic marker in a wide range of diseases.The aim of this study was toevaluate the ability of NLR to predict 28-day, 90-day and 180-day mortality.

***Materials and Methods:*** Retrospective analysis of patients admitted to our department due to biopsy proven AAH, between August/2010 and August/2018.The following score systems were analysed: Maddrey discriminant function(MDF), model for end-stage liver disease(MELD),Age-Bilirubin-INR-Creatinine(ABIC), Lille score(LS),CLIF consortium-organ failure score (CLIF-OF) and Neutrophil to lymphocyte ratio(NLR).

***Results:*** We included 49 cases of biopsy proven AAH (71% men, mean age of 49±9 years). The mortality rate at 28 days, 90 days and 180 day was, respectively, 22.4%, 32.7% and 40.8%. Sixty-seven percent of patients (n=33) initiated therapy with corticosteroids. Forty-five percent (n=15) of patients were complete responders (LS <0.16) while 24% (n=8) were non-responders (LS> 0.56). NLR at day 3 presented a good association with 28 day mortality, with AUROC 0.850 (0.615-1.0), p=0.04, sensitivity of 100% and specificity of 75% for the cut-off 5.33, an excellent association with 90-day mortality, with AUROC 0.976 (0.904-1.0), p=0.004, sensitivity of 100% and specificity of 86% for the cut-off 5.33, and an excellent association with 180-day mortality, with AUROC 0.952 (0.839-1.0), p=0.007, sensitivity of 100% and specificity of 83% for the cut-off 3.57.

***Conclusion:*** Neutrophil to lymphocyte ratio at day 3 is a very simple and easy to use score that was predictive of 28-day, 90-day and 180-day mortality and might be used as an important prognostic tool in acute alcoholic hepatitis.

***Keywords:*** Acute alcoholic hepatitis, prognostic scores, neutrophil to lymphocyte ratio

***PP-908***

## *Epidemiologic profile of stricturing Crohn's disease in a Moroccan tertiary care hospital*

**Manal Cherkaoui Malki, Hicham El Bacha, Nadia Benzzoubeir, Salma Mechhor, Farida Souidine, Laaziza Chahed Ouazzani, Ikram Errabih**

*Hepato-gastroenterology and Proctology Service "médecine B" Ibn Sina University Hospital, Rabat, Morocco*

***Background/Aims:*** Crohn's disease (CD) is an inflammatory bowel disease (IBD) which can take a stricturing behavior considered as a challenging complication. According to Vienna classification, strictures occur in 30% of cases after 10 years of evolution. The aim of our study is to analyze the epidemiological, clinical and paraclinical patterns stricturing CD.

***Materials and Methods:*** We performed a retrospective and descriptive study between 2006 and 2019 (13 years) in gastro-enterology department B, we included all our patient with stricturing CD. Patients underwent endoscopy (recto-sigmoidoscopy, coloscopy and upper endoscopy) and CT enterography or MRI enterography.

***Results:*** One hundred and thirty-five patients had digestive strictures among of 465 with CD ratio of 18,3%. The sex ratio (M/F) was 1,2. The average age was 37,7 years old with extremes from 16 to 71 years old. Only one patient had family history of IBD; nine (7.1%) underwent appendicectomy and 24 (18%) of our patients were smokers. The average duration of the follow-up was 104,26 months. Koenig syndrom was the major symptom found in 59 cases (44%) and chronic diarrhea was found in 43 cases (32%). The association to ano-perineal lesions was present in 6 cases (4%). The stenosis was located in 79 of patients (63%) in the terminal ileum, 28 (10%) in the colon and 5 (5%) in the upper tract. Enterography imaging have shown that the stricture was unique in 101 of the cases (75%) and multiple in 33 of the cases (25%); short (<5cm) in 103 cases (77%) and extended in 31 cases (23%) and inflammatory in more than half of the cases (65%).

***Conclusion:*** Strictures are frequent complications of CD. Mostly, happen in the terminal ileum are short and unique. The young age of the patients and the inflammatory character of the stenosis are important data in the treatment management.

***Keywords:*** Crohns disease, stricturing, epidemiology

---

***PP-909***

## *Retrospective evaluation of portal vein thrombosis cases and risk analysis for thrombosis formation based on platelet/lymphocyte ratio with neutrophil/lymphocyte ratio*

**Mustafa Emre Duygulu[1], Talat Ayyıldız[2], Beytullah Yıldırım[2], Burçin Şeyda Çorba[3], İbrahim Gören[2], Ahmet Bektaş[2]**

*[1]Department of Internal Medicine, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[2]Department of Gastroenterology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[3]Department of Statistics, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*

***Background/Aims:*** The aim of this study is to investigate the clinical data and genetic determinants of patients with non-cirrhotic and non-malignant PVT, also relationship between PVT and neutrophil/lymphocyte (NLR) and platelet/lymphocyte ratios (PLR) and to make new contributions to the literature.

***Materials and Methods:*** Between January 2006 and May 2018, 155 patients aged over 18 years diagnosed with PVT were evaluated in our center. After the exclusion criteria were applied, 51 patients were included in the study. The control group was selected from cases without the systemic disease who applied to the internal medicine outpatient clinic for control. Data was obtained through patient examination files and electronic database retrospectively. Data were analyzed by using IBM SPSS 22 statistical package program.

***Results:*** It was observed that PAI gene mutation increased PVT formation by 18.59 times and this was statistically significant (p=0.036). The correlation between MTHFR C677T mutation, MTHFR A1298C mutation, Factor VIII mutation, Factor V mutation, Factor II mutation and PVT was tested and no correlation was detected (p>0.05). There was a statistically significant relationship between acute and chronic PVT patients and control group patients in terms of NLR (p=0.001) and PLR (p=0.005). The sensitivity of these two ratios was found to be higher in acute PVT patients than in chronic PVT patients.

***Conclusion:*** In our study, the exclusion criteria were kept wide, in order to investigate the relationship between PVT and genetic mutation and NLR and PLR more accurately. A significant relationship was found between PAI mutation and PVT (p<0.05) and a significant relationship was found between acute PVT, chronic PVT cases and NLR and PLO values (p <0.05).

***Keywords:*** Portal vein thrombosis, NLR, PLR

---

***PP-910***

## *Infections in acute alcoholic hepatitis: never look away!*

**Rui Gaspar, Patricia Andrade, Ana Lopes Santos, Marco Silva, Susana Lopes, Guilherme Macedo**

*Centro Hospitalar São João, Portuguese*

***Background/Aims:*** Acute alcoholic hepatitis (AAH) is a distinct clinical entity in alcoholic liver disease, presenting a very high short term mortality. Corticosteroid treatment are the standard of care, having impact in the prognosis. Infections are one of the main complications during the course of the disease and one of the major causes of mortality. Therefore, early diagnosis and understanding the main risk factors for development of infections are critical in these patients, improving care and survival of these fragile population. The aim of this study was to analyze the prevalence and type of infections, as well as factors associated with higher risk of development of infections in patients with AAH

***Materials and Methods:*** Retrospective study between August/2010 and August/2018 of patients admitted to our department with biopsy proven AAH.

***Results:*** We included 49 cases of biopsy proven AAH (71% men, mean age of 49± 9 years).The major cause of cirrhosis was alcohol, although 5 patients had also HCV infection and 2 patients HBV infection, and 8 patients had previous episode of AAH. Only one patient was under prophylactic antibiotic. The mortality rate at 28 days was 22.4%. At admission, 67.3% had ascites, 16.3% had fever and 7 patients (14.3%) had a documented infection. During the period in the ward, more 18 patients developed infections, in a total of 51% of the patients with AAH presenting an infection. The most common infections were urinary tract infections (56%) and spontaneous bacterial peritonitis (12%). The following factors were associated with development of infection: total bilirubin at admission (p=0.028), INR (p=0.036), Neutrophil to lymphocyte ratio (p=0.034), ammonia (p<0.01), MELD (p=0.014) and MELD-Na (p=0.014).

***Conclusion:*** Infections are one of the major and most common complications of AAH, being present in 51% of our cohort, having a great impact on prognosis and representing a promising therapeutic target. We identified several factors that are associated with higher risk of developing infections, creating a group of patients that should be more intensively screened.

***Keywords:*** Infection, urinary tract infection, acute alcoholic hepatitis

***PP-911***

## *Is spleen stiffness superior to liver stiffness for predicting portal hypertension?*

**Renata Fofiu, Ioan Sporea, Felix Bende, Mirela Danila, Roxana Sirli, Alina Popescu**
*The Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** Liver stiffness (LS) and spleen stiffness (SS) are two most widely accessible non-invasive parameters for predicting esophageal varices (EV) but the reported acccuracy of the two predictors have been inconsistent across studies. The aim of the study was to establish the usefulness of spleen stiffness (SS) and liver stiffness (LS) values measured by 2D-shear wave elastography (2D-SWE.GE) as non-invasive markers for predicting the presence of esophageal varices (EV) and to compare their performances.

***Materials and Methods:*** A prospective study was performed, including 90 subjects with compensated liver cirrhosis who underwent both upper endoscopy and spleen and liver stiffness measurements (SSM, LSM) by means of 2D-SWE (LOGIQ E9-General Electric), in the same admission. Reliable SSM were defined as the median value of 10 measurements acquired in a homogenous area with (IQR/M) <0.30. Compensated liver cirrhosis was diagnosed based on clinical, biological and elastographic criteria (Liver transient elastography>12.5 kPa) [1].

***Results:*** We obtained reliable SSM in 96.7% (87/90) and reliable LSM in 97.7% (88/90) by means of 2D-SWE.GE.85 subjects were included in the final analysis, 63.5% (54/85) of them with EV. The best SS cut-off value by 2D-SWE.GE for predicting the presence of EV in our study group was 13.7kPa (AUROC–0.88; sensitivity-78%; specificity-90.3%; PPV-93%; NPV-66.8%), while the best LS cut-off value was 11.1kPa (AUROC–0.78; sensitivity-98.1%; specificity-52%; PPV-77,9%; NPV-94,1%). Based on AUROC comparison, SS performed significantly better than LS to predict the presence of EV (p=0.0253).

***Conclusion:*** SS seems to be a better tool that LS for predicting the presence of EV in cirrhotic patients.

***Keywords:*** Portal hypertension, spleen stiffness, liver stiffness

---

***PP-912***

## *Is cholecystectomy innocent or risk factor for colon adenoma?*

**Diğdem Özer Etik, Nuretdin Suna, Tevfik Avcı**

*Başkent University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Open or laparoscopic cholecystectomy due to gallstone related disorders can cause intestinal microbial dysbiosis and deterioration of bile acid metabolism. Abnormal colonic absorption of fecal secondary bile acids can lead colon cancer. In this study, we identified changes in the prevelance of colon adenoma in post-cholecystectomy patients according to passing years.

***Materials and Methods:*** In this retrospective study, we reviewed a database of patients who underwent cholecystectomy during the period January 2000 through December 2018. We initially evaluated 23580 patients, and then sorted out 1274 patients who applied at colonoscopy in our center. We classified three groups consisted of patients who underwent gall bladder surgery within 0-5 years, 6-10 years, and 11-15 years.

***Results:*** There were 344 patients with one or more adenomas at the colonoscopy. We found a positive relationship with post-cholecystectomy period and colon adenoma (RR 1.40; 95% CI 1.11–1.58). Comparison of three periods after cholecystectomy showed that the longer post-operative period, the greater the risk of detecting colon adenoma. We also found a promising increased risk for colon polyps as well (RR 1.21, 95% CI 1.07–1.34), but no relationship between post-cholecystectomy period and colon cancer (RR 0.50; 95% CI 0.20–1.20) was observed in the statistical analysis.

***Conclusion:*** Cholecystectomy may predispose to colon adenomas. As the time was elapsed after cholecystectomy, the frequency of colon adenoma detection rate was increased.

***Keywords:*** Cholecystectomy, colonoscopy, colon adenoma

---

***PP-913***

## *Evaluation of systolic and diastolic functions in celiac disease by echocardiography*

**Sümeyye Fatma Özer, Abdullah İçli, Ramazan Dertli, Abdullah Özçelik, Mükremin Coşkun, Yakup Alsancak, Hakan Akıllı, Mustafa Karanfil**

*Department of Cardiology, Necmettin Erbakan University Meram Medical School, Konya, Turkey*

***Background/Aims:*** We aimed to evaluate subclinical myocardial damage in celiac patients by performing transthoracic echocardiography and looking to left ventricular systolic and diastolic functions.

***Materials and Methods:*** Sixty patients who were diagnosed as celiac diseas with biopsy and serological tests in the gastroenterology clinic were included. Echocardiographic evaluation was performed using conventional echocardiography, tissue doppler imaging and speckle tracking. Patients' demographic characteristics, laboratory findings, clinical features, left ventricular ejection fraction (LVEF), left ventricular global longitudional strain (LV GLS), mitral annular plan systolic displacement (MAPSE), mitral early diastolic flow (E) and mitral late diastolic flow (A) velocity, lateral and septal Em, lateral and septal E/Em were compared with the control group.

***Results:*** The average age of the celiac group was 35. Patients had a female to male ratio of 2: 1. In the celiac group, MAPSE ($p<0.001$), lateral EM ($p<0.001$) and LV GLS ($p=0.002$) were significantly lower than the control group. Lateral E/Em ratio was significantly higher ($p <0.001$). No significant difference was found when comparing Mitral E and A velocities ($p=0.450$ and $p=0.189$).

***Conclusion:*** In our study, we found that subclinical myocardial damage in celiac disease patients can be detected by tissue doppler and strain studies, and MAPSE is a guiding factor in the detection of myocardial damage as a correlate of these methods.

***Keywords:*** Celiac Disease, transthorasic echocardiography, mitral annular plane systolic excursion, left ventricular global longitudial strain

---

***PP-914***

## *The interest of endoscopic retrograde cholangiopancreatography in Mirizzi syndrome: About 5 cases*

**Sara Jamal, Hassan Seddik, Khaoula Loubaris, Michael Samy, Reda Berraida, Ilham El Koti, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology Ii of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** Mirizzi syndrome is a rare cause of benign stenosis of the bile duct, caused by the presence of a gallstone in the gall bladder neck or in the cystic duct by an associated inflammatory reaction, partially or totally compresses the hand bile duct; in some cases the evolution is manifested by the appearance of bilio-biliary fistula and / or bilio-digestive fistula. The aim of our work was to analyze the epidemiological, clinical, evolutionary, therapeutic data and particularly the interest of endoscopic retrograde cholangiopancreatography (ERCP) in Mirizzi syndrome.

***Materials and Methods:*** We collected 5 cases of Mirizzi syndrome from the interventional endoscopy register of the Hepato-Gastroenterology II department of the Military Training Hospital Mohammed V of Rabat in Morocco. The epidemiological, clinical and paraclinical data of the patients were collected as well as the therapeutic results.

***Results:*** The average age of the patients was 55 years with a sex ratio of 1.5. The history of cholecystectomy was present in 2 patients, the telltale clinical signs were cholestatic jaundice in all cases, a angiocholitis was noted in 2 cases. Bili-MRI retained the diagnosis in 80% of cases. Endoscopic retrograde cholangiopancreatography helped to correct the diagnosis in 40% of cases. The therapeutic approach in our series was exclusively endoscopic in 60% of cases and combined in 40% of cases.

***Conclusion:*** In light of these findings and a review of the literature, we conclude that endoscopic retrograde cholangiopancreatography remains one of the key examinations for the diagnosis of difficult cases that may elude imaging and may have a place in the therapeutic strategy of Mirizzi syndrome.

***Keywords:*** Mirizzi syndrome, gallstone, cholestatic jaundice, endoscopic retrograde cholangiopancreatography (ERCP)

---

***PP-915***

## *Liver evaluation with transient elastography and controlled attenuation parameter in Type 2 diabetes patients*

**Ioan Sporea, Ruxandra Mare, Roxana Sirli, Alina Popescu, Silviu Nistorescu, Alexandra Sima, Romulus Timar**

*The Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** The objective of the study was to assess the severity of liver fibrosis and steatosis in a cohort of type 2 diabetic patients, using non-invasive methods: Transient Elastography (TE) and Controlled Attenuation Parameter (CAP).

***Materials and Methods:*** The study included 704 type 2 diabetic patients, who were prospectively randomized evaluated in the same session by means of TE and CAP (FibroScan EchoSens) to assess both liver fibrosis and steatosis. Reliable liver stiffness measurements (LSM) were defined as the median value of 10 LSM with an IQR/median <30%.

***Results:*** Out of 704 diabetics screened we excluded those with associated viral hepatitis, those with an AUDIT-C score ≥8 and those with unreliable LSM. 565 patients had only type 2 diabetes (not other etiological factors). After excluding those with unreliable LSM, the final analysis included 546 subjects (53.8% women) with reliable LSM and without other etiologies. Mild, moderate and severe steatosis by means of CAP was found in 17%, 14.5% and 58.8% cases respectively. The median CAP value in patients with type 2 diabetes without other etiologies was 316 db/m, while in those with associated viral hepatitis and those with an AUDIT-C score score ≥8 was 306 db/m and 311 db/m repectively (p=n.s). The median fibrosis value in patients with type 2 diabets was 6.1kPa while in patients with associated viral hepatitis was 12.7 kPa and 5.9kPa with AUDIT-C score ≥8.

***Conclusion:*** In our group of type 2 diabetic patients without other etiologies, approximately 73% of patients had moderate/severe steatosis by means of CAP and liver fibrosis was higher in patients with associated viral hepatitis and type 2 diabetes.

***Keywords:*** Steatosis, liver fibrosis, tpe 2 diabetes patients

---

***PP-916***

## *A retrospective study of two-year experience in the gastrectomy cases operated for the gastric adenocarcinoma*

**Büşra Yaprak Bayrak, Gupse Turan, Aziz Hakkı Civriz, Çiğdem Vural**

*Department of Pathology, Kocaeli University School of Medicine, Kocaeli, Turkey*

***Background/Aims:*** Gastric cancer is the fourth most common cancer in both men and women, and third most common cause of cancer-related deaths, generally with a malign prognosis due to the delay in diagnosis and the advanced

stage of the cases. The aim of this study was to evaluate the surgical findings of patients undergoing gastrectomy, retrospectively.

***Materials and Methods:*** 188 patients who underwent total / subtotal gastrectomy between March 2017-June 2019 in Kocaeli University School of Medicine, Department of Pathology were retrospectively analyzed. Adenocarcinoma patients were evaluated in terms of the age, gender, surgical procedure, tumor size, TN staging, and metastatic lymph nodes. All samples were analyzed by immunohistochemistry and 19 samples (20.7%) by silver in situ hybridization (SISH) for cerbB2 (HER-2).

***Results:*** 92 patients (%48.9) were diagnosed with gastric adenocarcinoma. 36 of them (39.1%) undergone a subtotal gastrectomy while 60.8% undergone a total surgery. 67 patients were male (72.8%), 25 patients were female (27.2%) and mean age was 61.8 (37-85). According to postoperative findings, 12 patients were in T1 stage (13.0%), 9 patients T2 (9.8%), 44 patients were T3 (47.8%) and 27 patients were T4 (29.3%). The mean of tumor size was 4.3 cm. 58 of patients (63.0%) had lymph node metastasis. cerbB2 analysis gave 3 cases in score 1, 21 cases in score 2, 5 cases in score 3. Only one of 19 samples examined by SISH was positive.

***Conclusion:*** Although most of our patients are cases in locally advanced stage, it is possible to say that they benefit from surgical procedures. Recently, the incidence of early diagnosis increases significantly with the inclusion of patients with risk factors in screening programs and with broad indications of endoscopic examination in patients with gastrointestinal system symptoms.

***Keywords:*** Gastric cancer, adenocarcinoma, histopathological examination

---

***PP-917***

## *EUS guided multimodality treatment of peripancreatic pseudoaneurysms*

**Piyush Somani[1], Malay Sharma[2], Mahesh Patil[2], Nikhil Mahajan[2], Sunil Reddy[2], Gaurav Ratnaparki[2]**

*[1]Thumbay Hospital, Dubai*
*[2]Jaswant Rai Speciality Hospital, India*

***Background/Aims:*** Pseudoaneurysms may occur in both acute and chronic pancreatitis. Gastrointestinal bleeding is the most common presentation after rupture. We present a series of Endoscopic ultrasound (EUS) guided treatment of 8 patients with pseudoaneurysms involving splenic artery (3 patient), gastroduodenal artery (GDA) (3 patients) and hepatic artery (2 patient).

***Materials and Methods:*** 5 patients presented with gastrointestinal bleeding. 5 patients had chronic pancreatitis while two were associated with acute pancreatitis. Initial selection of treatment by EUS was made by size and wall of pseudoaneurysm which can be thin walled or thick walled. As per inner diameter, they can be of three types: small (<2cm), large (2-4 cm) or giant (≥ 4cm). There were 3 giant, 2 large and 3 small pseudoaneurysms. 6 had thick wall while 2 had thin wall. Different modalities of EUS guided treatment were used singly or in combination. These modalities were coils, thrombin and glue.

***Results:*** There were no major complications. All eight patients had complete or near complete occlusion of pseudoaneurysm which was evaluated by abdominal ultrasound and endoscopic ultrasound. Multiple sessions were required in 4 patients while 4 were treated with single session

***Conclusion:*** EUS guided treatment of pseudoaneurysms appears as effective, feasible and safe technique with many choices of obliteration

***Keywords:*** pseudoaneurysm

***PP-918***

## *Comparison of biological treatments in Crohns disease*

**Serkan Duman[1], Büşra Haktanıyan[2], Ayda Aydoğan[2], Zeynep Ellik [1], Hülya Çetinkaya [1]**

*[1]Department of Gastroenterology, Ankara University, Ankara, Turkey*
*[2]Department of Internal Medicine, Ankara University, Ankara, Turkey*

***Background/Aims:*** Primary aim of Medical therapy of Crohn's disease is to cease the generalized inflammatory response, thereby relieving symptoms. The most widely used biologics are the TNF-α inhibitors such as adalimumab, certolizumab, and infliximab and vedolizumab that is the integrin receptor antagonist in the treatment of Crohn's disease. The aim of this study was to compare the effects of biological agents on achieving and maintaining remission in Crohns disease.

***Materials and Methods:*** This study was conducted by retrospectively scanning the files of the patients who were hospitalized in Gastroenterology Clinic of Ankara University Ibn-i Sina Hospital from January 2016 to April 2019. This study included 49 patients who underwent biological treatment for Crohn's disease. Harvey-Bradshaw index scores of patients at least three months after the beginning of biological treatment were compared.

***Results:*** The mean disease duration of the patients was 7 years. 24 patients were male and 24 were female. The mean age of the patients was 37.5 years. Finally, 7 patients were using adalimumab, 36 patients were using infliximab, 1 patient was using infliximab and 3 patients were using vedolizumab and 1 patient was receiving certolizumab. The mean Harvey-Bradshaw index score of patients was 4.7 for patients using infliximab while 9.4 for patients using adalimumab and 5.3 for patients using vedolizumab. The Harvey-Bradshaw index score of a patient who received certolizumab was 1.

***Conclusion:*** Patients using infliximab had lower Harvey-Bradshaw index scores. Nevertheless, further studies are needed to conclude which drug is more effective in Crohns disease.

***Keywords:*** Crohns disease, biological treatments

---

***PP-919***

## *EUS guided thrombolysis of portal venous system*

**Malay Sharma[1], Piyush Somani[2]**

*[1]Jaswant Rai Speciality Hospital, India*
*[2]Thumbay Hospital, Dubai*

***Background/Aims:*** Portal venous system (PVS) is one of the most inaccessible systems of the body. Endoscopic ultrasound (EUS) guided access to the PVS is possible. We report EUS guided thrombolysis of acute PVS thrombosis in 10 cases.

***Materials and Methods:*** Between December 2015 and June 2019, all symptomatic patients presenting with non-cirrhotic acute thrombosis of PVS with/ without mesenteric ischemia were included in the study. Diagnosis was achieved by clinical evaluation and CT abdomen. All patients received intravenous fluids, antibiotics and low molecular weight heparin. Patients without clinical improvement to anticoagulation therapy and/or progression of thrombosis at 24-48 hours were taken for EUS guided thrombolysis. Entry into the PVS was possible by EUS guided puncture and injection of streptokinase was given as continuous catheter thrombolysis with 30000 units/hour in 5 cases. Bolus injections of 50000 units were given in portal vein, splenic vein and superior mesenteric vein (SMV) in 5 cases.

***Results:*** All patients had resolution in pain and ileus. There was no mortality. There was complete resolution of thrombus in 7 cases with partial resolution in 3 cases

***Conclusion:*** EUS guided thrombolysis should be considered in life threatening acute PVS thrombosis.

***Keywords:*** Thrombosis

---

***PP-920***

## *Liver fibrosis and steatosis in patients with metabolic syndrome*

**Ruxandra Mare, Ioan Sporea, Patricia Lupulescu, Roxana Sirli, Alina Popescu, Mirela Tomescu**

*The Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

***Background/Aims:*** Patients with metabolic syndrome have in many cases liver steatosis (NAFLD) and sometimes this can be followed by significant liver fibrosis. To determine the severity of liver steatosis and fibrosis in a cohort of patients with metabolic syndrome, using non-invasive methods: Transient Elastography (TE) with Controlled Attenuation Parameter (CAP).

***Materials and Methods:*** 112 patients with metabolic syndrome were prospectively enrolled. Evaluation of liver fibrosis and steatosis was made using TE (FibroScan) with CAP using both M and XL probes. Reliable liver stiffness measurements (LSM) were defined as the median value of 10 LSM with an IQR/median <30%. The evaluation of steatosis was performed by CAP and we used the following cut-off values proposed by the manufacturer: S1 (mild) <230, S2 (moderate): 275-300 db/m, S3 (severe) > 300 db/m. On the other hand, a cut-off value of 8.5 kPa was used to define clinically relevant fibrosis (F≥2).

***Results:*** Reliable LSM were obtained with TE in 88.4% (99/112). The mean age value was 59.4± 10.5 and the BMI was 35.1± 5.02kg/m$^2$. Moderate and severe steatosis by means of CAP was found in 13.1% and 64.6% of cases respectively. Clinically relevant fibrosis was detected by means of TE (LSM≥8.5 kPa) in 18.2% (18/99) of subjects and all subjects concomitantly had CAP values ≥ 300db/m, suggesting severe steatosis.

***Conclusion:*** In our group, 77.7% of patients with metabolic syndrome had moderate and severe steatosis by CAP and 18.2% of them had clinically relevant fibrosis by TE.

***Keywords:*** Metabolic syndrome, liver fibrosis, steatosis

---

***PP-921***

## *Epidemiology of liver disease in pregnancy: A 6-year retrospective study in a tertiary center*

**Sofia Silva Mendes, Dalila Costa, Natacha Sousa, Juliana Almeida, Margarida Gonçalves, Pedro Antunes, Tiago Leal, Ana Célia Caetano, Raquel Gonçalves**

*Braga Hospital, Braga, Portuguese*

***Background/Aims:*** Liver diseases in pregnancy (LDP) comprise significative morbimortality for mother and child. Data on its epidemiology are scarce worldwide. This work aims to describe the epidemiology of LDP, including maternal and fetal outcomes, in a tertiary center. Additionally, it intends to characterize the management of these patients.

***Materials and Methods:*** Pregnancies with follow-up in consultations or hospital admissions between 2012 and 2018 with laboratory alterations potentially related with hepatic disease (total bilirubin >1mg/dL, aspartate transaminase >37U/L, alanine transaminase >78U/L, Gamma-glutamyltransferase >85U/L, alkaline phosphatase >117U/L or hepatotropic viruses positive serologies) or with a diagnosis of liver disease in pregnancy (ICD9 646.7 or ICD10 O26.6) were identified. Clinical records were analyzed in order to confirm LDP and to collect data on demography, previous liver disease, diagnostic and therapeutic approach and maternal and fetal outcomes.

***Results:*** Between 2012 and 2018, 223 pregnancies with any LDP were identified, corresponding to 1.3% of the deliveries in the institution. The most frequent diagnosis was pre-eclampsia/eclampsia (23.6%, n=60), followed by HELLP syndrome (21.1%, n=47), intra-hepatic cholestasis of pregnancy (17.7%, n=45) and fatty liver of pregnancy (2.8%, n=7). The LDP motivated premature interruption of pregnancy in 21.1% (n=47) with an average gestational age of 29.5±0.5 weeks and caused maternal admission in an intensive care unit in 11.7% of cases (n=26) with one maternal death. Regarding fetal outcomes, 22.0% (n=49) of the newborns demanded admission in an intensive care neonatology unit, with 2 fetal deaths in utero. From the 223 pregnant women with LDP, fifty-seven (22.4%) had chronic hepatitis B, and none of them needed to initiate antiviral therapy during pregnancy. The Gastroenterology unit participated in the management of 38 cases (17.0%).

***Conclusion:*** LDP are a heterogeneous group of pathologies with a relevant prevalence and variable severity. Gastroenterologists should be involved in the management of these diseases and joint clinical protocols should be encouraged.

***Keywords:*** Liver disease, pregnancy

---

***PP-922***

## *Eosinophilic gastroenteritis: Still a challenging diagnosis*

**Sofia Silva Mendes, Dalila Costa, Tiago Leal, Aníbal Ferreira, Ana Célia Caetano, Raquel Gonçalves**

*Braga Hospital, Braga, Portuguese*

A 36-year-old woman with previous history of asthma and urticaria was admitted to the hospital for the study of an acute diarrhea (1-2 liquid stools per day with no blood or mucus), abdominal swelling and asthenia with onset 2 weeks before. The patient also reported wheezing episodes in the past week. Physical examination revealed moderate volume ascites being otherwise unremarkable. In those 2 weeks before hospital admission, she looked for medical assistance for three times being discharged with symptomatic treatment. Laboratory results revealed peripheral eosinophilia (7000 eosinophils/µl, 45% of the leucocytes) and increased seric immunoglobulin E (1083 IU/ml, normal levels < 129 IU/ml). Cell count of the ascitic fluid revealed 89% of eosinophils (8337/µl). Computerized tomography revealed thickening of distal esophagus and of jejunal and ileal loops apart from moderate volume ascites. Investigation of the alternative causes of peripheral eosinophilia and infiltration of other organs by eosinophils was negative. Empirical treatment with oral prednisolone and diet with exclusion of six potential allergenic foods was initiated. A rapid clinical improvement was observed with normalization of intestinal transit and reduction of abdominal volume and marked reduction in peripheral eosinophilia. Posteriorly, duodenal and ileal biopsies confirmed infiltration by eosinophils (> 50 eosinophils per high power field, HPF), less expressive on esophageal and colonic biopsies (10 eosinophils/HPF). Eosinophilic gastro enteritis (EoG) is a rare condition with a yet poorly understood pathophysiology and variable prognosis. Despite being diagnosed by exclusion, it is important to suspect of EoG with subserosa involvement in patients presenting with the uncommon association of ascites and vague gastrointestinal symptoms, particularly if there is an history of allergies.

***Keywords:*** Eosinophilic gastroenteritis, ascites

---

***PP-923***

## *Pelvic floor disorders: Approach in a multidisciplinary consultation*

**Sofia Silva Mendes, Ana Célia Caetano, Sandra Martins, Cátia Lia Abreu, Pedro Cabrita, Manuela Coelho**

*Braga Hospital, Braga, Portuguese*

***Background/Aims:*** Pelvic floor disorders (PFD) have a rising prevalence and a significant negative impact on the quality-of-life of affected patients. Due to the complexity of these conditions, patients often require and benefit from a multidisciplinary approach.

***Materials and Methods:*** This work aimed to characterize the multidisciplin ary pelvic care meeting and associated outpatients consultation (PCMAOC) regarding reference and management of PFD at a tertiary center. A retrospective cohort study was conducted. The clinical records of all the patients referred to the PCMAOC PFD from its genesis in July 2015 to August 2018 were reviewed.

***Results:*** A total of 119 patients were evaluated in the PCMAOC, mostly female (95.8%), with a mean age of 56±14.1 years. From the 119 patients, 55 (46%) were referred to the PCMAOC from Gynecology, 36 (30.3%) from Physical Medicine and Rehabilitation, 22 (18.5%) from General Surgery, 3 from Gastroenterology and 3 from Urology. Regarding the reference, the most frequent motif was urinary incontinence (50.3%, n=74), followed by defecatory dysfunction (16.3%, n=24) and fecal incontinence (11.6%, n=17). Within the patients with two or more consultation motives, the most common combination was urinary incontinence and defecatory dysfunction (28.6%, n=8). Analyzing the subgroup of patients with defecatory disorders (n=51), the majority was oriented to pelvic floor rehabilitation (64.7%). Surgery was proposed in 35% of cases, 27.4% were submitted to rehabilitation treatments previously. Regarding the clinical perception of resolution of the patients' symptoms, 7 (13.7%) patients were discharged for significant improvement, 36 (70.6%) had a partial improvement and in 8 (15.7%) the symptoms persisted. No patient reported worsening of the symptoms.

***Conclusion:*** In conclusion, upon the diversity of diagnosis and limited therapeutic solutions, a holistic approach in the PCMAOC with optimization of non-invasive treatments may improve the quality-of-life of these patients.

***Keywords:*** Pelvic floor disorders, multidisciplinary consultation

---

***PP-924***

## *Management of anomalous opening of the common bile duct into the duodenal bulb*

**Derya Arı, Bülent Ödemiş**

*Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*

***Background/Aims:*** The common bile duct (CBD) normally goes next to the medial wall of the second part of the duodenum and opens into ampulla of Vateri.However, entrance into third or fourth part of the duodenum and less commonly into more proximal sites such as the stomach, pylorus or bulb have been described in the literature.In this study, we evaluated the clinical and radiological features, treatment modalities and long-term follow-up results of bulbus opening anomalies.

***Materials and Methods:*** Data were collected from Endoscopic Retrograde Cholangiopancreatography (ERCP) records between 2010-2018. The medical records of the patients who had anatomically abnormal opening of the common bile duct (CBD) into the first part of duodenum have been collected and their transabdominal ultrasound computerized tomography, upper endoscopy and ERCP findings have been reviewed.

***Results:*** The opening of the CBD into the duodenal bulb was detected in 51 cases. There was a striking male preponderance (44 male, 7 female).Median age of the group was 58,7 years.10 patients (19,6%) had a history of failed ERCP at the external center. CBD stone was the most common indication (49 patients, 96%).37 patients (72,5%) presented with biliary pain 11 patients (21,5%) with biliary pain and fever, and 3 patients (5,8%) with fever.9 patients (17,6%) had a history of recurrent cholangitis. 25 patients (49%) had cholecystectomy. All patients had apical stenosis. A total of 134 ERCPs (1 in 24 patients, 2 in 9 patients, 3 in 6 patients, 4 in 12 patients) were performed. Balloon dilatation was performed in 24 patients (47%) with biliary orifice (8mm-12mm balloon) and 5 patients (9,8%) with bulbus apical stenosis (12mm-18mm balloon). The mean follow-up period was 13,5 months (1 month to 95 months).During ERCP, 1 patient (1,9%) developed leaking hemorrhage which did not require treatment, and 2 patients (3,9%) developed perforation (12 mm balloon dilatation of the biliary orifice).Biliodigestive surgery was performed in 12 patients (due to recurrent cholangitis in 7 patients, repeated ERCP requirement in 6 patients and technical difficulty of ERCP in 1 patient).

***Conclusion:*** Anomalous opening of the CBD into the duodenal bulb is a very rare anomaly.When the endoscopist cannot see the papilla in the second part of the duodenum or apical stenosis or patient has a history of gastroenterostomy, must suspect

anomalous opening of the CBD.Performing ERCP in these patients is technically difficult and requires high endoscopic ability. Therefore, surgery should be considered in patients after ≥2 cholangitis attacks or in case of repeated ERCP.

***Keywords:*** Anomalous biliary opening, biliodigestive surgery, ERCP

---

***PP-925***

## *Endoscopic treatment of complications of hydatid cysts in the liver broken in the bile ducts: Experience of a Moroccan department*

**Sara Jamal, Hassan Seddik, Khaoula Loubaris, Michael Samy, Reda Berraida, Ilham El Koti, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology Ii of The Military Training Hospital Mohammed V Of Rabat Morocco, Morocco*

***Background/Aims:*** The Hydatid cyst of the liver is a parasitic disease due to the development of the larval form of the Taenia of the dog Echinococcus granulosus. By its clinical latency, the Diagnosis is most often at the stage of complications. Fistulization of the cyst hydatid in the bile ducts is the most common complication. Endoscopy is necessary because of the therapeutic problems and risks associated with surgery. The objective of our study was to evaluate and analyze the effectiveness of ERCP in the diagnosis and treatment of Hydatid cysts of the liver broken in the pathways ducts.

***Materials and Methods:*** This is a 15-year retrospective and descriptive study, ranging from January 2004 to January 2019, focused on patients with fistulized Hydatid cyst in the pathways bile duct. ERCP and endoscopic biliary sphincterotomy were performed in all patients, 18 times pre-operatively and 21 times post-operatively.

***Results:*** 39 patients with broken Hydatid cyst in the biliary duct, 2.4% of the indications ERCP in our series were included. The average age of patients was 47, with male predominance in 65% of cases. KHF broken in the ways galls were complicated by persistent external biliary fistula post operatively in 34% of cases. Sphincterotomy was performed in all patients allowing removal of Hydatid material by extraction balloon or Dormia basket. The evolution was marked by the disappearance of jaundice after 5 to 12 days in average after endoscopic gesture and dryness of external biliary fistula after 10 to 12 days.

***Conclusion:*** The results of our study confirm the efficacy and safety of ERCP and the endoscopic sphincterotomy in biliary complications of echinococcosis hepatic. It makes it possible to shorten the post-operative stay and to avoid are operation, often difficult and haemorrhagic.

***Keywords:*** Hydatid cyst, complications, endoscopic retrograde cholangiopancreatographie

---

***PP-926***

## *Outcomes of short term training in ERCP: Analysis of 300 trainees from a single centre*

**Malay Sharma[1], Rahul Talele[4], Piyush Somani[3], Mysore Nagraja[2]**

*[1]Jaswant Rai Speciality Hospital, Meerut, Up, India*
*[2]Northridge Hospital Medical Center, Northridge, USA*
*[3]Department of Gastroenterology, Thumbay Hospital, Dubai*
*[4]Mgm Medical College and Research Institute, Aurangabad*

***Background/Aims:*** The demand for ERCP in developing countries has been steadily increasing over the years. However, present opportunities for ERCP training are inadequate to cater to the increasing demand. ERCP training is further complicated by the lack of clear definitions of ERCP competence and volume based thresholds to assess ERCP skill levels.

***Materials and Methods:*** Between January 2005 to January 2019, 300 qualified gastroenterologists, were given supervised hands-on short term training in ERCP. Most of the doctors were trained for one week. The extension of training was done as per the requirement of trainees. The impact of training on ERCP competence was assessed telephonically.

***Results:*** Of 300, 254 (84.7%) trainees were from India; 46 (15.3%) were from other countries. 264 (88%) trainees were given one week of training, and 36 (12%) required 2 or more weeks of training. 220 (73.34%) trainees did not have any prior ERCP training, 80 (26.67%) trainees had previous training in ERCP. Of the total trainees; 278 (92.67%) are independently performing ERCPs. 121 (43.52%) are doing 0-100 ERCPs a year and 157 (56.47%) are doing more than 100 ERCPs a year independently.

***Conclusion:*** Imparting Short term, individually tailored hands-on ERCP training to qualified gastroenterologists at a high volume centre, can be helpful to address the high demand of ERCP in underdeveloped and developing countries.

***Keywords:*** ERCP, training

---

***PP-927***

## *Liver reserve and dosimetry evaluation using 68Ga-NOTA Hexa-lactoside and 111In-DTPA Hexa-lactoside imaging biomarkers*

**Mei-hui Wang, Hung-man Yu, Chuan-yi Chien, Ping-yen Wang**

*Institute of Nuclear Energy Research, Taoyuan, Taiwan*

***Background/Aims:*** Asialoglycoprotein receptors on hepatocyte membrane correlate with liver reserve, because it involved most liver functions, including hepatocyte-specific adsorption, metabolism and excretion. $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside were designed for asialoglycoprotein receptor imaging. In this study, we aim to compare the radiation dose exposure between them to see if shorter physical half-life of $^{68}$Ga-NOTA hexa-lactoside would contribute lower radiation exposure.

***Materials and Methods:*** The specific activity we used for $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside is 82.7 and 175.61 MBq/nmol, respectively. The radiation-absorbed doses predicted for humans were based on the biodistribution data calculated using OLINDA software.

***Results:*** Both $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside exhibited liver targeting property and performed similar liver uptake in rodents. The projected doses in a human adult of approximately 75kg were 0.0156 and 0.0088 mSv/MBq in liver and 0.03 and 0.026 mSv/MBq in whole-body for $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside, respectively. The clinical radiation dose is 5 mCi for $^{99m}$Tc-GSA for liver reserve measurement; however, it has more than 30% background in the liver. Due to the effective liver-targeting for $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside, 3.5mCi should be the maximum dose for first-in-human trial. Then, it was predicted that a 75kg person would receive doses of 2 and 1.1 mSv maximum in liver for $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside, respectively, and doses of 3.9 and 3.4 mSv maximum in whole-body for $^{111}$In-DTPA hexa-lactoside and $^{68}$Ga-NOTA hexa-lactoside, respectively.

***Conclusion:*** Our data indicates either $^{111}$In-DTPA hexa-lactoside or $^{68}$Ga-NOTA hexa-lactoside has similar time activity curve profile. Both of them are liver targeting and have as low as unwanted exposure in other organs. Although we use 2-fold higher specific activity in $^{68}$Ga-NOTA hexa-lactoside scintigraphy, its exposure dose in liver was 45% less compared to $^{111}$In-DTPA hexa-lactoside. In addition, its systemic exposure 3.4 mSv is in safe acceptable for human administration, compared to $^{18}$F-FDG in clinical use (7-14mSv).

***Keywords:*** Asialoglycoprotein receptor, $^{111}$In-DTPA hexa-lactoside, $^{68}$Ga-NOTA hexa-lactoside, radiation dosimetry

***PP-928***

## *FIB-4 AND NAFLD fibrosis scores have poor performance to rule out significant fibrosis among NAFLD patients in primary care: Data from the largest primary care NAFLD pathway in North America*

**Abdel-aziz Shaheen, Kiarash Riazi, Wendy Schaufert, Kelly Burak, Alexandra Medellin, Deepak Bhayana, Mark Swain**

*University of Calgary, Calgary, Alberta, Canada*

***Background/Aims:*** Identifying NAFLD patients with advanced fibrosis in primary care is challenging. FIB-4 or NAFLD fibrosis score (NFS) were proposed as evaluation tools, but their accuracy in primary care is unknown. We used the Calgary NAFLD clinical care pathway, using shearwave elastography (SWE) to risk-stratify fibrosis among NAFLD patients, to evaluate the performance of the serum fibrosis markers FIB-4 and NFS.

***Materials and Methods:*** Calgary NAFLD pathway was developed to enable primary care physicians (PCP) to risk-stratify NAFLD patients. PCP can directly access the pathway for patients with: obesity, diabetes mellitus, elevated liver enzymes, or fatty liver on imaging. Patients with suspected NAFLD (tests excluding other causes of liver disease) are assessed by SWE. Those with liver stiffness by SWE >8 kPa (or inconclusive result) were referred to hepatology, and those with SWE< 8.0 kPa were managed by their PCP using a management pathway. Approximately 230 patients/month were evaluated.

***Results:*** We identified 1,958 NAFLD patients (March-October 2018), including 1,251 and 894 with data to calculate FIB-4 and NFS. Median SWE was 4.4kPa (IQR:3.7-5.5kPa), while median FIB-4 and NFS were 0.99 (IQR: 0.69-1.48) and-1.12 (IQR:-2.1,-0.01), respectively. 1,586 patients (91.5%) had SWE< 8kPa, while 167 had either SWE >8kPa (3.4%) or an inconclusive result (5.1%) and were referred to hepatology. FIB-4 and NFS classified 31.7% and 58.5% of NAFLD patients above cut-off of 1.30 and-1.45 respectively. In our cohort, both FIB-4 and NFS were not correlated with 2D-SWE (r=0.16 and 0.30), and AUROC for FIB-4 and NFS were 0.70 and 0.75 respectively.

***Conclusion:*** Both FIB-4 and NFS exhibited poor performance compared to 2D-SWE. Using serum-based fibrosis scores (FIB-4, NFS) would have led to significantly higher referral rates to hepatology. Our findings indicate the feasibility for PCP-accessible SWE assessment to streamline referral of NAFLD patients.

***Keywords:*** Non-alcoholic fatty liver disease, non-invasive fibrosis assessment, risk stratification

---

***PP-929***

## *A case of hydrogen peroxide toxicity*

**Faezeh Razjouyan**

*George Washington Hospital, Washington, USA*

Ingestion of high concentration hydrogen peroxide solution, whether accidental or intentional, results in extensive injury to surrounding tissues by oxygen gas formation and corrosive damage. We report a case of an attempted suicide by ingestion of a highly concentrated (35%) solution of hydrogen peroxide causing portal venous gas. A 20-year-old male patient with history of depression, PTSD, EtOH abuse, HIV presented to the emergency department after attempted suicide by ingestion 35% hydrogen peroxide. Immediately following ingestion, he experienced profuse vomiting and called 911. He was taken to the nearest emergency department. There, he continued to experience severe nausea and blood tinged emesis. He denied any neurological symptoms. A computed tomography (CT) abdomen performed showed extensive portal venous gas throughout the liver with few gas droplets seen in the extraluminal distal esophagus as well as pneumatosis in the wall of the gastric antrum. Subsequently, patient was transferred to the nearest hospital with hyperbaric oxygen chamber (HBOT) for treatment. HBOT aids in dissolution of gaseous emboli back into the tissue or the plasma. Patient had marked improvement of symptoms and on the second day of admission, a repeat CT abdomen showed minimal portal venous gas with resolution of pneumatosis and extraluminal air within the distal esophagus. Hydrogen perox-

ide is a common agent in household products such as detergents, disinfectant, tooth whitening products, etc. Concentrated hydrogen peroxide (>35%) is considered a caustic agent and when ingested it can cause local tissue damage via three main mechanisms: corrosive damage, oxygen gas formation and lipid peroxidation. Symptoms include CNS damage due to arterial gas embolization, irritation of the gastrointestinal tract including blistering of oral mucosa, laryngospasm, stridor, sub-epiglottic narrowing, hematemesis, rupture of the hollow viscus secondary to oxygen liberation. Early airway management in critical patients is essential. In cases of persistent emesis, epigastric pain and severe damage to oral mucosa, endoscopy is indicated. Therapy is primarily supportive, plus hyperbaric oxygen therapy particularly if neurological symptoms of present suggestive of gas emboli.

***Keywords:*** Hydrogen peroxide, penumoatosis, portal venous gas, H2O2, computed tomography, endoscopy

---

***PP-930***

## *Predictors of high shear wave elastography (SWE) measurements among nonalcoholic fatty liver disease (NAFLD) patients in primary care*

**Abdel-aziz Shaheen, Kiarash Riazi, Wendy Schaufert, Kelly Burak, Alexandra Medellin, Deepak Bhayana, Mark Swain**

*University of Calgary, Calgary, Alberta, Canada*

***Background/Aims:*** NAFLD is prevalent in the general population. In tertiary care, previous studies have found that age or elevated liver enzymes predict high liver stiffness measurements (LSM). However, these have not been validated in primary care.

***Materials and Methods:*** We used data from the Calgary NAFLD clinical care pathway (CNCCP), which enables PCP to directly investigate suspect NAFLD patients (obesity, diabetes mellitus, elevated liver enzymes, or fatty liver on imaging) with shear wave elastography (SWE). If SWE >8.0kPa (or inconclusive result) they are referred to hepatology, while those with SWE <8.0kPa are managed by PCP using a standardized management pathway. Logistic regression models were used to identify independent predictors of LSM >8.0kPa. Regression models were adjusted for patient demographics, comorbidities, body mass index (BMI), and ALT.

***Results:*** We evaluated 2,081 patients with suspected NAFLD from March-November 2018. NAFLD prevalence by ultrasound was 94.1% (n=1,958) and varied by BMI (97.1% among BMI>30; 92.3% for BMI 25-30). NAFLD was seen more in women (53.7%) with a median age of 55 (IQR: 45-63). Patients having impaired glucose tolerance (IGT), diabetes, hypertension, and obesity were prevalent in our cohort (33.6%, 28.7%, 40.8%, and 62.9% respectively). Overall, median SWE was 4.4 kPa (IQR: 3.7-5.5 kPa). Only 67 patients (3.4%) had LSM >8.0kPa. In our adjusted models, obesity (aOR 1.93: 1.01-3.75), diabetes (aOR 2.18: 1.11-4.29), and having hypertension (aOR 2.17: 1.18-3.96) were the only independent predictors of LSM > 8.0kPa. Age, sex, elevated ALT, and IGT were not independently associated with elevated LSM.

***Conclusion:*** In this large primary care based NAFLD cohort, we report that diabetes, hypertension, and obesity were independent predictors of elevated LSM, but elevated ALT was not. These findings may enable PCP to better prioritize evaluation of NAFLD patients in primary care.

***Keywords:*** Non-alcoholic fatty liver disease, fibrosis, prognosis

---

***PP-931***

## *Billiary obstruction after tips placement in patient after liver transplant*

**Darina Gogova[1], Peter Macinga[1], Eva Honsova[1], Libor Janousek[1], Jan Raupach[2], Pavel Taimr[1], Julius Spicak[1], Jan Peregrin[1], Jiri Novotny[1], Tomas Hucl[1]**

*[1]Institute for Clinical and Experimental Medicine*
*[2]University Hospital Hradec Králové, Czech Republic*

***Introduction:*** Transjugular intrahepatic portosystemic shunt (TIPS) is a conventionally used method in portal hypertension treatment, the most common indication being refractery ascites and bleeding from oesophageal varices. Frequently observed complications include bleeding and liver encephalopathy development, the ones affecting biliary tree as bilioportal fistula and biliary stenosis are much less common. Placement of TIPS in liver transplant patient is rare and implicate technically challenging procedure.

***Case:*** Fourty years old patient diagnosed with alcoholic cirrhosis underwent whole liver transplantation. Postoperatively, there were no complications observed and patient was discharged from the ward. Aproximately two months after the procedure, he was admitted to our clinic with ascites and fluidothorax. The portosystemic gradient was 28 mmHg at the time and gastroesophageal varices were found by gastroscopy. Liver biopsy was performed, with microvascular damage corresponding with the sinusoidal obstruction syndrome (SOS) described, therefore the patient was recommended for TIPS placement. The first attempt for shunt placement was technically unsuccesful, second one was succesful with regress of ascites and fluidothorax. However, shortly after, there was an apparent rise in cholestatic enzymes level and an absceding cholangitis with dorsal right-lobe bile duct dilatation was diagnosed by MRCP. ERCP discovered a tight stenosis located in bile duct branching for dorsal segments, caused by external impression by previously implanted stentgraft. Trial for an endoscopic resolution of the stenosis was unsuccesful, therefore an external transhepatic drainage was embedded, exchanged for an internal.external transhepatic drainage during second look procedure. The procedure was followed by significant drop in linflammatory markers level and obstructive liver function tests.

***Conclusion:*** Our case report describes rare complicaton of TIPS placement, a biliary tree stenosis, which was succesfully resolved by percutaneous internal-external transhepatic drainage. The case described is the first complicaton of this kind described in liver transplant patient.

***Keywords:*** Liver transplant, TIPS, biliary obstruction, sinusoidal obstruction syndrome (SOS)

---

***PP-932***

## *The importance of serum thiol levels in gastric intestinal metaplasia*

**Nilay Danış[1], Ayşegül Ertınmaz Özkan[1], Fatih Karataş[1], Cagdaş Aktan[2], Nurhayat Sevencan[1], Burçak Kayhan[1]**

*[1]Karabük University Training and Research Hospital, Karabük, Turkey*
*[2]Beykent University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Serum Native Thiol (NT), Total thiol (TT), and Disulfide (SS) are important components of the natural antioxidant system and they protect human cells against oxygen radicals. Preliminary studies showed that, they may play a role of gastric cancer. We conducted this prospective study to investigate the possible importance of thiols in gastric intestinal metaplasia for understanding of starting development of carcinogenesis.

***Materials and Methods:*** A total of 58 subjects, including 29 patients with intestinal metaplasia and 29 control groups were included in this non-randomized prospective case-control trial. Fasting venous blood serum samples from participants were stored at-80°C for equal time and, TT, NT and SS levels were measured spectrophotometrically. The differences in serum TT, NT and SS levels between the groups and their relationship with demographic data were compared.

***Results:*** Age and gender distirubiton were found matched between study and control groups (study group mean age 57.5±11.2, healthy controls mean age 58.5 ± 4.7) (study group 55% male (16/29) ; control group 59% (17/29) male). In study group, NT levels were found significantly lower than healthy controls (160±85 umol/L; 265 ± 55 umol/L respectively. p<0.001), while TT levels were not found significantly different (p=0.2) compared to the control group. SS levels were found significantly higher in study group than healthy controls (90±61 umol/L; 19 ± 4.7 umol/L; p<0.001). Moreover, the ratios of disulphide/native thiol; disulphide/total thiol ratios were higher in study group than healthy controls, and native thiol/total thiol ratios (p<0.001 for all) were found significantly lower in study group compared to the control group.

***Conclusion:*** Intestinal metaplasia is closely associated with serum thiol levels.

***Keywords:*** Serum thiol disulfide, intestinal metaplasia, oxidative stress

***PP-933***

## *The effectiveness of endoscopic dilations in benign digestive stenosis in a Moroccan population: Retrospective study about 93 cases*

**Sara Jamal, Fedoua Rouibaa, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** Endoscopic dilations are an interventional endoscopy technique indicated in the organic and motor stenosis of the digestive tract. The purpose of our work is to evaluate the effectiveness of this technique in the treatment of benign digestive stenosis.

***Materials and Methods:*** This is a descriptive retrospective study, in a period of 9 years, from March 2010 to March 2019. We included 93 patients having a benign digestive stenosis treated endoscopically by dilation with candles or balloon, collected at the department of Hepato-Gastroenterology I of the Military Training Hospital Mohammed V of Rabat in Morocco.

***Results:*** The average age was 45.2 years with a slight female predominance. The main symptomatology was dysphagia for esophageal stenosis. The causes of these stenosis were: achalasia in 30 cases, peptic stenosis in 21 cases, anastomots in 18 cases, a Vincent Plummer Syndrom in 12 cases and caustic stenosis in 3 cases, 3 stenosis after sleeverectomy and 6 cases of colic stenosis. 54 patients received candle-dilation and 39 patients were treated with pneumatic balloon dilation. The number of dilation was on average 2 sessions (extreme: 1-4 sessions). No immediate complications were reported. The evolution of the patients was satisfactory, a case of anastomotic stenosis (oeso-jejunal anastomosis for carcinoid tumor operated 6 years ago) that was resistant to dilation several times.

***Conclusion:*** Endoscopic dilation is an effective technique in the management of benign digestive stenoses and is an alternative to surgery, its complications are exceptional when the rules of action are respected.

***Keywords:*** Endoscopic dilations, benign digestive stenosis, organic and motor stenosis

---

***PP-934***

## *Endoscopic abnormalities in reflueurs patients: Series of 324 cases in a Moroccan population*

**Sara Jamal, Fedoua Rouibaa, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** Gastroesophageal reflux disease (GERD) is a common reason for gastroenterology consultation. AMD-related endoscopic lesions are found in 20-50% of cases and clinical signs are not correlated with the severity of endoscopic lesions. The purpose of our work is to describe the prevalence of endoscopic abnormalities and the consistency between clinical manifestations and the severity of endoscopic lesions found.

***Materials and Methods:*** This is a retrospective study, in a period of 7 years, from June 2011 to June 2018, collected in the department of Hepatology and Gastroenterology I of the Military Training Hospital of Mohammed V of Rabat in Morocco, including 324 cases of patients carrying a GERD. Data were collected from high endoscopy records in patients with GERD.

***Results:*** 324 patients were explored by high endoscopy. The average age was 43 years (16-80) with a male predominance (174 H-150 F). Esogastroduodenal endoscopy was normal in 46% of cases (n-138), recovered endoscopic lesions are represented by esophagitis in 25% of cases (n-75) of which 61% of cases (n-46) was stage I esophagitis, 12% of cases (n.9 cases) esophagus stage II, 12% of cases (n-9) an endobrachy-esophagus (EBO), 10% of cases (n-8) an ulcer and 5% of cases a peptic stenosis (no.4). Hiatal hernia is found in 29% of cases (n-35). No cases of oesogastric tract cancer are found in our series.

***Conclusion:*** The endoscopic lesions associated with GOD found in our series are for the majority of benign cases. There is also no parallelism between clinical signs and the severity of the lesions.

***Keywords:*** Endoscopic lesions, reflueurs patients, severity of the lesions, benign cases, GERD, endobrachy-esophagus

***PP-935***

## *Population based study of liver stiffness using fibroscan in a transition society of South Kerala, India*

**Shenoy KT, Kondarappassery Balakumaran Leena, Aithal GP**

*Population Health and Research Institute, Trivandrum*

***Background/Aims:*** There are no population based studies on liver stiffness using fibroscan in Kerala and we studied the risk factors and liver stiffness.

***Materials and Methods:*** Study was undertaken in Kerala, which has the highest literacy, and a diverse population in relation to diet, ethnicity and religion. The study was community-based, and included the 12 blocks with 78 panchayats in the rural area, and the 81wards in the urban corporation area. We adopted a multistage cluster sampling to enroll the study participants.6219 participants were eventually recruited by a field team, through house to-house survey. The study was approved by the ethical committee of Sree Gokulam Medical College. We calculated descriptive statistics of demographic characteristics for the study population, including age, sex, BMI, residential area, religion, the status of pan masala chewing and cigarette smoking, alcohol intake. Liver stiffness was assessed by fibroscan (ECHOsens). Logistic regression model was used to obtain odds ratio (ORs) with 95% confidence intervals (CIs) for potential risk factors in relation to the presence of higher liver stiffness (7.2 or greater). A p-value of < 0.05 is considered statistically significant. All statistical analyses were done by SPSS statistical software.

***Results:*** 3070 were males and 3149 were females. 1617 (26%) had high liver stiffness. Liver stiffness (mean±SD) was 7.5± 5.6 in males and 6.29 ± 3.7 among females and !Q range was 5.1 to 7.3 and 4.5 to 6.9 respectively. 1524 had a median stiffness of 7.2 or more and this was 57.1% among the males and more in the rural domicile, those with a BMI of greater than 23 (p<0.001). 20.5% had diabetes in this cohort and those with diabetes mellitus, hypertension and ischemic heart disease, any previous liver disease such as NAFLD had higher liver stiffnees (p< 0.001). Coffee intake was seen in 11.1% of those with higher liver stiffness but not significant. In the multivariate logistic regression model, age greater than 60, rural domicile, male sex, BMI greater than 23, alcohol abuse, diabetes mellitus, and any previous disease are independent risk factors for higher liver stiffness

***Conclusion:*** High degree of liver stiffness in our population needs intervention strategies and follow up for thesequele

***Keywords:*** Liver stiffness fibroscan population study

***PP-936***

## *Pattern of chronic hepatitis B and modalities of treatment in kerala South India*

**Kondarappassery Balakumaran Leena, Shenoy KT**

*Population Health and Research Institute, Trivandrum*

***Background/Aims:*** Kerala state in Sindia has higher prevalence of hepatitits B and very little data is available on the patterns of chronic hepatitis B and the treatment modalities. We evaluated the biochemical, virological and treatment responses in a cohort of chronic HBV as defined by the Asia Pacific Guidelines

***Materials and Methods:*** One thousand eight hundred and fifty subjects (male 1270 and females 580) were recruited from Medical College, Trivandrum (2005 September to April 2006) and Sree Gokulam Medical College (2006 Mat till 2018 December) and followed up prospectively every 3 to 6 months. AST, ALT. HBeAg were estimated in all the study subjects and HBV DNA quantification and HBsAg quantification was carried out in 1012 subjects.

***Results:*** Mean age (SD) was 36.85 (±13.45). Cirrhosis was noted in the baseline in 270 (14.6%) and 8.9% were HBeAg positive; non cirrhotics (85.4%) and 11.2% were HBeAg positive. ALT was abnormal in 37%. DNA qauntification showed high values (>20,000 IU/mL) in 21% and moderale values (2000 to 20,000 IU/mL) in 44% and in the rest, it was <1500 IU/ml/. 84 patients received pegylated interferon for 48 weeks and 16 received sequential therapy with interferon and antivral. 394 subjects received antivirals for 12 months or more. 6.4% in the interferon treated lost HBsAg at 48 weeks and none in the oral therapy group.

***Conclusion:*** Treatment with interferon shows promising result and need further long term studies

***Keywords:*** Chronic HBV Interferon antiviral

---

***PP-937***

## *Preliminary study on the correlation between HBS antigenemia and viral load in a Moroccan population followed for chronic viral hepatitis B*

**Sara Jamal, Fedoua Rouibaa, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V Of Rabat, Morocco*

***Background/Aims:*** Viral Hepatitis B (VHB) plays a major role in public health. The interest in quantifying AgHbs began with the observation of a correlation with the mNAccc (viral load of hepatitis B). This quantification represents a simpler and less expensive marker than PCRs quantification of the viral genome for patient monitoring and follow-up. The objective of the study is to find a correlation between the quantification of Antigen (Ag) Hbs and the viral load of VHB in Moroccan patients followed for chronic viral hepatitis B.

***Materials and Methods:*** The study population included 261 patients. The quantification of Ag Hbs was carried out by ECLIA technique, real-time PCR viral load and the Pearson test correlation study.

***Results:*** The study showed a male predominance of around 79.7%. AgHbes serological research showed that 96% of patients had a negative AgHbe. The correlation study showed a strong positive, statistically significant correlation (r-0.83, p-0.001) in the group of treated patients and a low positive correlation (r-0.23, p-0.05) in the naïve patient group.

***Conclusion:*** Our work represents a preliminary study on the correlation of the quantification of Ag Hbs with viral load in the Moroccan population. Further forward-looking studies on a larger scale are needed.

***Keywords:*** Viral hepatitis B (HVB), preliminary study, the quantification of Ag Hbs, viral load of hepatitis B

---

***PP-938***

## *Predictors of good response to entecavir during chronic viral hepatitis B (VHB) in a Moroccan population*

**Sara Jamal, Safia El Aboudi, Mouna Tamzaourte, Fedoua Rouibaa, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V Of Rabat, Morocco*

***Background/Aims:*** Viral hepatitis B (VHB) is a common infection that is a major public health problem in its risk of progressing to liver cirrhosis and hepatocellular carcinoma (CHC). The purpose of our work is to assess the predictors of good response to Entecavir and its benefits in chronic carriers.

***Materials and Methods:*** We conducted a cross-sectional retrospective study of a series of 160 patients, treated with Entecavir and followed in a hepatology consultation of our service.

***Results:*** The average age of the patients was 43 years with a clear male predominance. 80% of patients were asymptomatic, and the diagnosis was most often made during a screening check-up. The pre-core mutant profile was predominant. 12.5% of patients were cirrhotic, 72.5% of patients had a viral load between 2,000 IU/l and 10,000,000 IU/ml. Regarding the biochemical response to Entecavir, 72% of patients normalized their ALAT levels by the 3rd month of treatment. This rate increased to 90% in the 12th month. In terms of virological response, 525.5% of patients negatively reported their viral load in the 3rd month of treatment. This rate reached 85% in the 12th month. The therapeutic tolerance was excellent. Only one case of resistance has been reported.

***Conclusion:*** The almost constant effectiveness of Entecavir in terms of viro-suppression, its excellent tolerance and strong genetic barrier make Entecavir an attractive first-line therapeutic option in both AG Hbe positive and negative.

***Keywords:*** Viral hepatitis B (VHB), Entecavir, viro-suppression, liver cirrhosis, HepatoCellular Carcinoma (CHC)

---

***PP-939***

## *Efficacy and safety of the first Moroccan generics of direct antivirals in the management of viral hepatitis C (VHC)*

**Sara Jamal, Fedoua Rouibaa, Sanaa Berrag, Fouad Nejjari, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** The treatment of chronic Viral Hepatitis C (VHC) has changed dramatically in recent years since the emergence of new Direct Antiviral Agents (DAA). These treatments are very effective, well tolerated and in the majority of cases lead to viral eradication. The management of VHC infection in Morocco has been hampered by inadequate and highly expensive treatments. For 2 years, we have had our own generic of two molecules: Sofosbuvir and Daclatasvir. The objective of our study is to evaluate the efficacy and therapeutic tolerance of these generics in the management of Moroccan patients with VHC.

***Materials and Methods:*** This is a prospective study conducted within our department, including 83 patients with HVC, all genotypes, cirrhotic or not, naïve relapsers or non-responders. All patients received a pre-therapeutic assessment in line with international recommendations.

***Results:*** The average age of our patients was 57 years 30 to 84 years. A male predominance was noted in 54.5% of patients with an H/F ratio sex of 1.2. The median pre-therapeutic viral load was 5.57 log [4.15-7 Log]. In this series, genotype 1 was predominant and was found in 34 cases (77.2%), genotype 2 involved 10 cases or 22.7% of cases. 6 patients (13.6%) had minimal fibrosis (F0-F1) at Fibroscan®, 9 patients (20.4%) had moderate fibrosis (F2), 10 patients (22.7%) had severe fibrosis (F3) and 19 patients were cirrhotic (F4) or 43% of cases. 12 patients had Child A cirrhosis, 6 had Child B cirrhosis and 1 patient had Child C cirrhosis. Patients naive to any treatment accounted for 63.6%, relapsers were 22.7% and non-responders were 13.63%. 43 patients had a Rapid Virological Response (RVR) or 97.7%. Early virological response as well as virological response at the end of treatment were obtained in 100% of patients. 97% of patients seen in consultation 24 weeks after discontinuation of treatment had an undetectable viral load. Treatment was suspended in a patient who developed esophageal candidiasis. Only one patient presented a transient deep asthenia.

***Conclusion:*** Until recently, the management of HCV infection in Morocco has been hampered by inadequate and highly expensive treatments. The accessibility of the generic drug 100% Moroccan has today made it possible to envisage the total eradication of hepatitis C in the Kingdom, in line with the objectives and ambitions of national health authorities.

***Keywords:*** Chronic Viral Hepatitis C (VHC), Moroccan generics, genotype, cirrhosis, the total eradication of hepatitis C

---

***PP-940***

## *A prospective randomized controlled study about the effects of the combination OF Saccharomyces Boulardii with sequential therapy in the eradication OF Helicobacter Pylori*

**Sara Jamal, Hassan Seddik, Hanae Boutallaka, Khaoula Loubaris, Reda Berraida, Fouad Nejjari, Ilham El Koti, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology Ii of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** The eradication of Helicobacter Pylori (HP) remains valid because of constantly evolving data. The recent Maastricht V recommendations stipulate that concomitant quadritherapy and quad bismuth therapy take place on sequential treatment because of a higher eradication rate (90% vs. 82%), but at the cost of increased adverse effects. The aim of our work was to study the effects of the combination of probiotics with sequential therapy on HP eradication rates and the incidence of adverse events.

***Materials and Methods:*** One hundred and ninety-nine patients with documented HP infection on histological study of gastric biopsies were included, over a period from May 2014 to May 2017, in a single-center randomized controlled open-label randomized study in two groups: a control group receiving a standard sequential therapy comprising a daily double dose of Omeprazole 20mg, and Amoxicillin 1g for the first five days, followed by a daily double dose of Omeprazole 20mg, Clarithromycin 500mg, and Metronidazole 500mg for 5 days later, and an experimental group receiving the same protocol associated with a double daily intake of 250mg of Saccharomyces Boulardii (Ultralevures®) during the 10 days of treatment. All patients were reviewed at the end of treatment to assess adherence and the incidence of side effects. Bacterial eradication was then verified 4 to 6 weeks after the end of treatment with the marked urea breath test. The statistical analysis of the data was performed by SPSS 20 software, the logistic regression model was used for the analysis of the effect of Saccharomyces Boulardii on the efficacy of treatment and the occurrence of adverse effects.

***Results:*** The two groups were matched in terms of age (mean age=44.3 +/-13.8 years vs 43 +/-13.2 years), sex (sex ratio H / F=1.15 vs 1, 05), medical history, smoking, and endoscopic and histological findings. In intent to treat ITT and per PP protocol, the eradication rate was significantly higher for the experimental group (86.6% ITT, 87.5% PP) compared to the control group (78.2% ITT 74.7%). PP), p=0.02. The combination of Saccharomyces Boulardii significantly decreased the rate of adverse reactions overall (RR=0.26, 95% CI [0.14-0.47], p <0.001), the rate of onset of diarrhea (RR=0.07, 95% CI [0.028-0.20], p <0.001), and also reduced the rate of onset of nausea and vomiting, dizziness, asthenia and metallic taste, but this not statistically significant. In multi-variate analysis, SB is associated with optimization of the eradication rate (RR=2.4, 95% CI=[0.19-1.09], p=0.02), and a decrease in the rate of eradication, antibiotic-associated diarrhea (RR=0.07, 95% CI=[0.02-0.26], p <0.001).

***Conclusion:*** Based on our results, the combination of Saccharomyces Boulardii with sequential treatment allows a significant reduction of sides effects, especially of antibiotic-related diarrhea, and an optimization of the rate of eradication of HP.

***Keywords:*** Saccharomyces Boulardii, sequential treatment, combination of probiotics, Randomized Controlled Study, reduction of sides effects

***PP-941***

## *Abdominal surgery for Crohn's disease: Single instituiton experience*

**Murat Şen, Özgen Işık, Ersin Öztürk, Ahmet Tuncay Yılmazlar**

*Department of Surgery, Bursa Uludağ University School of Medicine, Bursa, Turkey*

***Background/Aims:*** Surgical treatment may frequently be necessary in most of the Crohn's patients. This paper aims to present the characteristics and outcomes of patients who underwent abdominal surgery for Crohn's related issues.

***Materials and Methods:*** All patients who have histopathologically proven Crohn's disease and underwent abdominal surgery for Crohn's related problems between 2006 and 2018 were included. Perianal procedures were excluded. Patient demographics and characteristics, surgical features and outcomes were documented.

***Results:*** In total there were 54 patients operated during the study period. Median age was 42.5 (20-79) and 38 (70.4%) were male. Disease type was structuring in 24 (44.5%), fistulizing in 22 (40.7%) and inflammatory in 8 (14.8%) patients. Most of the patients underwent elective procedures (61.1%), and mechanical bowel obstruction (24.1%) was the most common indication for surgery. Majority of the patients underwent ileocolic resection (47.2%).

***Conclusion:*** In our series, the need for abdominal surgery was mostly for bowel obstruction in stricturing disease. Multidisciplinary follow up of Crohn's patients, including surgeons in the team, is necessary.

***Keywords:*** Crohn's disease, surgery, inflammatory bowel disease, IBD, ileocolic resection, anastomosis, leakage, bowel obstruction

---

***PP-942***

## *Is the diverticular papilla a factor in the failure of catheterization of the main bile duct in lithiasis pathology? Experience of a Moroccan department: About 846 cases*

**Sara Jamal, Hassan Seddik, Fouad Nejjari, Khaoula Loubaris, Reda Berraida, Ilham El Koti, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology Ii of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** The duodenal diverticula are frequent (6 to 20%), and they preferentially sit in the papillary region and are called juxta-, peri-para-papillary or valerian. The latter may be a difficulty in the catheterization of the main bile duct and are more common in cases of associated cholelithiasis. The objective of our study is to calculate the prevalence of juxta-papillary diverticula (JPD) in patients with VBP lithiasis and evaluate their influence on the success rate of main bile duct catheterization in lithiasis pathology.

***Materials and Methods:*** This is a retrospective study conducted from April 2004 until April 2018. There were included 846 patients having benefited from an ERCP for lithiasis of the main bile duct. The presence or absence of a juxta-papillary diverticulum has been noted. We compared the success rate of catheterization of the main bile duct in patients with juxta-papillary diverticulum (group I) versus patients without diverticular disc (group II).

***Results:*** The mean age of the patients was 58 ± 13 years, 515 women and 331 men (sex ratio H / F: 0.64). Patients with a diverticular disc (group I) accounted for 9.6% of the patients included (81 patients). Group II consisted of 765 patients (90.4%). The success rate of the main bile duct catheterization was 96.4% in group II versus 86.5% in group I (p: 0.007). The overall rate of early complications was 6% in group II versus 7.4% in group I (p=0.12).

***Conclusion:*** The presence of a PDI appears to significantly decrease the success rate of the main bile duct catheterization in lithiasis pathology without increasing the risk of early complications. Prospective studies with large series, however, remain necessary to confirm these results.

***Keywords:*** Juxta-papillary diverticula (JPD), prevalence, lithiasis of the main bile duct, success, catheterization in lithiasis pathology

---

***PP-943***

## *Recto-colic polyps: Prevalence and support (Experience of a Moroccan department)*

**Sara Jamal, Hassan Seddik, Samir Mrabti, Khaoula Loubaris, Hanae Boutallaka, Reda Berraida, Ilham El Koti, Ahmed Benkirane**

*Department of Hepatology and Gastroenterology Ii of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** Colorectal polyps are common in the general population. Endoscopy is used to detect and characterize the type of polyp. This is fundamental to determining the technique to be used to perform the resection. The objective of our study is to determine the prevalence of colcolic polyps within our department and their management.

***Materials and Methods:*** This is a descriptive and analytical retrospective study, spanning a period of 19 years, from January 2000 to April 2019, collected in the service of Hepao-Gastroenterology II of the Mohammed V Military Training Hospital in Rabat, Morocco. The Inclusion Criteria was patients aged 18 with less than 4 colorectal polyps over 3 mm and having undergone endoscopic resection. Resection techniques have been studied as well as complication management. The statistical analysis was done using SPSS 24.0 software.

***Results:*** 3.23% (n-214) of patients who received total colonoscopy during the study period (n-6607) had one or more polypectomies. The average number of polyps in each patient was 1.32-0.66. The history of cto-colic cancer operated on was 13.2% (n-27). The indication of total colonoscopy was dominated by rectorrhies in 22.9% (n-47). During colonoscopy, the majority of polyps were located in the left colon in 45.1% (n-93) with a predominance of sessile polyps (Is) which accounted for 73.83% (n-158). The most commonly used resection technique was exeresis clamp biopsy and polypectomy. The rate of early complication was 2% (no.2), and the rate of late complication after endoscopic hemostasis was zero.

***Conclusion:*** Endoscopic resection of rectocolic polyps is currently an alternative to radical surgery, decreasing incidence and mortality from colcolic cancer. In our department the prevalence was 3.23%, the most commonly used resection technique was exeresis clamp biopsy and polypectomy.

***Keywords:*** Recto-colic polyps, prevalence, colcolic cancer, polypectomy

---

***PP-944***

## *Severe acute colitis: Predicting response factors to intravenous corticosteroid therapy about 81 cases in a Moroccan department*

**Sara Jamal, Sanaa Berrag, Fouad Nejjari, Mouna Tamzaourte, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** Severe acute colitis may be a revelation or occur in the course of a known chronic intestinal inflammatory disease, particularly hemorrhagic colitis. Intravenous corticosteroid therapy is the first-line medical treatment for the severe acute colitis. The purpose of our work is to assess the predictors of response to intravenous corticosteroid therapy during severe acute colitis.

***Materials and Methods:*** This is a 5 year retrospective study, from June 2013 to December 2018, including 81 cases of severe acute colitis collected in the Department of Hepatology and Gastroenterology I of the Military Training Hospital of Rabat in Morocco. The severe acute colitis was defined by a Lichtiger score above 10. Clinical, biological, endoscopic and radiological data were collected and analyzed by SPSS20.

***Results:*** The average age of our patients is 37.9-17.1 years with a clear female predominance (63 F/ 18 H), 16 patients (22.2%) had a known inflammatory bowel disease (IBD). The average Lichtiger Scale was 13-1.45, 34 patients (33.3%) were naive to steroids, 31 patients (33.3%) had endoscopic gravity criteria. In univariate analysis, the factors significantly associated with intravenous corticosteroid therapy failure were: J3-elevated CRP (45mg/l), blood presence at J3, pancolic impairment, non-naïve corticosteroid status. In multi-variance analysis and adjusting for the above factors, only CRP (c-reactive protein) was 45mg/l at J3 is significantly associated with intravenous corticosteroid therapie failure (OR 1.3, p-0.02).

***Conclusion:*** Our study supports the literature on the value of pCR-to-J3 dosage to assess response or failure to intravenous corticosteroid therapy in the initial management of severe acute colitis.

***Keywords:*** Severe acute colitis, intravenous corticosteroid therapy, response factors, chronic intestinal inflammatory disease, hemorrhagic colitis

---

***PP-945***

## *Direct antivirals in the treatment of viral hepatitis C in chronic hemodialysis: Results of a prospective study in a Moroccan population*

**Sara Jamal, Tarik Addajou, Sanaa Berrag, Fouad Nejjari, Mouna Tamzaourte, Fedoua Rouibaa, Aziz Aourarh**

*Department of Hepatology and Gastroenterology I of The Military Training Hospital Mohammed V of Rabat, Morocco*

***Background/Aims:*** Chronic Viral Hepatitis C (VHC) is a real public health problem. It is more common and more severe in chronic hemodialysis patients. Its therapeutic management and the management of its side effects remain difficult in this population. The main objective of this work is to assess the efficacy and tolerance of direct antivirals in Moroccan chronic hemodialysis patients with Viral Hepatitis C.

***Materials and Methods:*** This is a prospective study, conducted in the Department of Hepatology and Gastroenterology I of the Military Training Hospital of Rabat, in Morocco, over a period of two years including 20 patients with chronic (VHC) with chronic kidney failure on hemodialysis under treatment with Sofosbuvir 400 mg (3 tablets/week) and Daclatasvir 60mg (1tablet/day). Viral VHC load (viral RNA), ALAT levels and kidney function were the main follow-up points.

***Results:*** The average age of our patients is 52 years [30-82 years] with a sex ratio of 0.66%. Genotype 1 accounts for 75% of cases. The average viral load is 5.7 log. 90% of patients are naive of previous HVC treatment. Viral load was undetectable in 100% of patients at the 4th week of treatment. Sustained viral response was obtained in 100% of cases. Clinical and biological tolerance was good except for three patients, two of whom had deep asthenia and one patient had headaches.

***Conclusion:*** The results of our study are consistent with those of the literature that highlight the efficacy and good tolerance of the treatment regimen combining Sofosbuvir and Daclatasvir in the treatment of viral hepatitis C in chronic hemodialysis. However, the use of this treatment must be combined with close monitoring of kidney function in order to stop it if it worsens.

***Keywords:*** Chronic Viral Hepatitis C (VHC), in chronic hemodialysis, direct antivirals, efficacy, tolerance

***PP-946***

## *Characterization of patients with biopsy-proven non-alcoholic fatty liver disease and normal aminotransferase levels*

**Celal Ulaşoğlu[1], Feruze Enc[1], Eda Kaya[2], Yusuf Yılmaz[3]**

*[1]Department of Gastroenterology, Medeniyet University Göztepe Training and Research Hospital, İstanbul, Turkey*
*[2]İstanbul University-Cerrahpaşa Cerrahpaşa School of Medicine, İstanbul, Turkey*
*[3]Department of Gastroenterology, Marmara University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** Non-alcoholic fatty liver disease (NAFLD) is one of the major causes of abnormal liver function tests in hepatology practice. However, not all patients with NAFLD show increased aminotransferase levels. The aim of this study was to compare the clinical and histological characteristics of patients with biopsy-proven NAFLD showing normal versus elevated serum aminotransferases.

***Materials and Methods:*** We examined 515 patients with biopsy-proven NAFLD. Patients with ALT ≤40 U/L and AST ≤37 U/L were considered as having normal liver enzymes. A histological fibrosis score F≥3 was used to define advanced fibrosis

***Results:*** Of the 515 study participants, 107 (20.8%) had normal liver enzymes. The general characteristics of the patients with normak and elevated liver enzymes are presented in Table 1. Compared with patients showing elevated liver enzymes, those with aminotransferases levels within normal ranges were older and most commonly women. Moreover, they had a higher body mass index and more frequently showed metabolic risk factors (metabolic syndrome, diabetes mellitus, hypertension, greater waist and hip circumferences). The histological characteritics of the study patients are depicted in Table 2. Although liver histology generally tended to be less severe in patients with normal liver enzymes, the prevalence of advanced fibrosis was similar in the two groups. Diabetes mellitus (odds ratio [OR]=2.12, 95% confidence interval [CI]=1.46–3.91, P < 0.001) and age (OR=1.14, 95% CI=1.07–1.24, P < 0.05) were identified as independent predictors of advanced fibrosis in patients with normal aminotransferases.

***Conclusion:*** NAFLD with normal liver enzymes is characterized by a severe metabolic profile and a prevalence of advanced fibrosis similar to that identified in cases with elevated aminotransferases.

***Keywords:*** Non-alcoholic fatty liver disease, liver enzymes, advanced fibrosis

---

***PP-947***

## *Clinical course of inflammatory bowel disease and primary sclerosing cholangitis after liver transplantation*

**Ülkü Dağlı[1], Diğdem Özer Etik[1], Aydıncan Akdur[2], Fatih Hilmioğlu[1], Sedat Boyacıoğlu[1], Gökhan Moray[2], Mehmet Haberal[2]**

*[1]Department of Gastroenterology, Başkent University School of Medicine, Ankara, Turkey*
*[2]Department of Surgery, Başkent University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Primary sclerosing cholangitis (PSC) is a rare progressive cholestatic liver disease with presumed autoimmune etiology. It is characterized by inflammation and fibrosis of the intrahepatic and extrahepatic bile ducts. There is a strong association between PSC and inflammatory bowel diseases (IBDs), particularly ulcerative colitis (UC). The history of inflammatory bowel disease (IBD) after liver transplantation (LT) for PSC has been reported as variable. Even though in majority of the cases, IBD symptoms do not change or improve, there also cases of deterioriation reported. Approximately one third of patients with PSC may develop de nova IBD 10 years after LT. Several studies have focused on the course of IBD after LT. These studies found conflicting results. There is no data of our country in this subject.

***Materials and Methods:*** There were six patients transplanted for PSC who survived more than 12 months. Ulcerative colitis was diagnosed in four of the six (67%) patients before transplantation. Colonoscopy and biopsy were performed before and after transplantation for all patients. Patients were followed for an average 56 (24-96) months. All received tacrolimus and prednisone with or without azathioprine as maintenance immunosuppression.

***Results:*** A total of six PSC patients were included in this study, three males and three females. The mean age at LT was 33.6 (18-43) years. Four of six patients with PSC had UC before liver transplantation. After LT, two patients (50%) had quiescent disease and were receiving no additional medications other than standard immunosuppression. Two patients (50%) had severe flares which could not be controlled by oral and IV prednisone or azathioprine and undergone total colectomy. Multifocal dysplasia was detected in colectomy specimens in one of the two cases. De novo IBD was diagnosed in two patients. PSC recurred after an average of eight years in five of six patients. Two of those patients developed de novo UC at the same time. Four of the patients with recurrent PSC had active UC.

***Conclusion:*** Preexisting ulcerative colitis often has an aggressive course, while de novo ulcerative colitis may develop in patients transplanted for primary sclerosing cholangitis.An increased risk of colorectal cancer is present also after LT in IBD patients with primary sclerosing cholangitis.Regarding the higher clinical complexity of this subgroup of IBD patients, the management of IBD after LT requires close coordination between transplant surgeon, hepatologists and IBD experts.

***Keywords:*** Primary sclerosing cholangitis, liver transplantation, inflammatory bowel diseases

---

***PP-948***

## *Predictors of adherence to cirrhosis care quality measures*

**Nizar Talaat[1], Faris Elkhidir[2], Ahmed Hamed[3], Hans Tillmann[3]**

*[1]Mayo Clinic, Minnesota, USA*
*[2]Cleveland Clinic, Ohio, USA*
*[3]East Carolina University, USA*

***Background/Aims:*** Adherence to practice guidelines and evidence based quality indicators to improve the care provided to patients with cirrhosis has been reported to be suboptimal. This could be due to the complexity of patients seen in the busy outpatient setting. We aim to determine the predictors for adherence to these quality indicators, namely esophageal varices (EV) screening, hepatocellular carcinoma (HCC) screening, hepatitis A & B (HAV, HBV) vaccination, achieving target heart rate for patients on beta blockers, hepatic encephalopathy (HE) management and liver transplant (LT) evaluation.

***Materials and Methods:*** Retrospective chart review of patients with cirrhosis seen in the gastroenterology (GI) clinic between 2011-2017. Clinical and laboratory data were collected. Cirrhosis was determined by histology, imaging, non-invasive laboratory testing, or clinical evidence of decompensation. We used multivariate logistic regression analysis to examine the association between patient or disease characteristics and adherence to quality indicators.

***Results:*** A total of 482 patients were eligible for the study. Table 1. Summarizes the baseline characteristics of patients. Majority of the patients (81%) are established in the practice with a mean follow up duration of 2 years. The most common cause of cirrhosis is alcohol (46%) followed by hepatitis C (36%). Majority of the patients (65%) had prior hepatic decompensation. Most of the patients underwent EGD screening for EV (83%) and imaging for HCC screening (88%). Less than half of the patients received vaccination against HAV (40%) and HBV (42%). Although majority of the patients had prior hepatic decompensation, only 39% of the patients were evaluated for liver transplantation. In multivariate logistic regression, a MELD score higher than 15 was a predictor for LT evaluation (OR 1.63; 95% CIs [1.13, 2.35]) regardless of age, sex or cause of liver cirrhosis. Decompensated cirrhosis was independently associated with OLT evaluation (OR 3.57; 95% CIs [2.26, 5.74]). There were no statistically significant difference in predictors of adherence to HCC and EV screening per guidelines identified in our sample.

***Conclusion:*** In our sample, a significant portion of patients seen in outpatient GI clinic had decompensated cirrhosis and liver transplant evaluation was more likely in this group of patients. However, majority did not receive prophylaxis against HAV or HBV. These findings represent an opportunity to improve the quality of outpatient care rendered to cirrhosis patients.

***Keywords:*** Cirrhosis care, liver transplant evaluation, hepatitis vaccination

| | All patients (n=482) |
|---|---|
| Age * | 58 ± 10 |
| Gender, Male | 272 (56) |
| New patients | 89 (19) |
| Follow up duration, months * | 24 ± 15 |
| Race | |
| White | 260 (54) |
| Black | 170 (35) |
| Hispanic | 36 (8) |
| Other | 16 (3) |
| BMI ≥ 30 | 212 (44) |
| Cause of cirrhosis | |
| ETOH | 220 (46) |
| HCV | 171 (36) |
| HBV | 10 (2.1) |
| NASH | 90 (19) |
| Other | 76 (16) |
| Method of cirrhosis diagnosis | |
| Histology | 69 (14) |
| Clinical | 54 (11) |
| Imaging | 303 (63) |
| Non-invasive method | 56 (12) |
| MELD Score * | 12±6 |
| Prior decompensation | 312 (65) |
| Ascites | 248 (52) |
| Hepatic encephalopathy | 190 (39) |
| Variceal bleeding | 87 (18) |

* Mean±SD

***PP-949***

## *Predictives of early relapse in Crohn's disease*

**Derya Arı[1], İsmail Hakkı Kalkan[2], Ferhat Bacaksız[1], Volkan Gökbulut[1], Ertuğrul Kayaçetin[1]**

*[1]Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*
*[2]Department of Gastroenterology, TOBB University of Economics and Technology, School of Medicine, Ankara, Turkey*

***Background/Aims:*** Crohn's disease (CD) has a natural course characterized by alternating periods of remission and relapse. Although prolonged remission may occur, discrete periods of symptomatic disease may re-appear over many decades suggesting recurrence or re-activation of this inflammatory process. We aimed to detect prevalence and predictive factors of early clinical relapse of luminal Crohn's disease.

***Materials and Methods:*** Clinical, demographic and laboratory data of patients were extracted from our Inflammatory Bowel Disease Outpatient Clinic follow-up medical records. Early relapse was defined as clinical relapse observed in first year period

following first clinical remission after diagnosis of luminal CD. The study involved the patients who were newly diagnosed with CD and clinical remission was observed after a 12 week remission induction treatment period.

***Results:*** The study included 153 patients (mean age: 44.5, 54.9% male). L2 disease was observed due to Montreal classification in 42.5% of patients. Early relapse was detected in 35.3% (54/153) of patients. Univariate analysis showed that basal median Harvey-Bradshaw index (HBI) score (p=0.001), platellet (p=0.04) and fibrinogen (p=0,01) levels were significantly higher in early relapse group. Also early relapse rate was significantly higher in patients with ileocolonic disease (p=0.03). Binary logistic regression analysis showed that basal HBI was only independent predictive factor for early relapse(p=0.01). Also ileocolonic disease was nearly statistically significant for the development of early relapse (p=0.08).

***Conclusion:*** This study is unique in the literature in term of investigating prevalence and predictives of early relapse in luminal CD. Our findings suggest that basal HBI score and ileocolonic CD seem to be predictive for early relapse in luminal CD.

***Keywords:*** Crohn's disease, early relapse, Harvey-Bradshaw index

---

***PP-950***

## *The relationship of biofeedback therapy and colon transit time in patients with dyssynergic defecation*

**Derya Arı, Ömer Öztürk, İlyas Tenlik, Ferhat Bacaksız, Volkan Gökbulut**

*Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*

***Background/Aims:*** Constipation is not a disease but a subjective symptom that is interpreted differently from person to person. The prevalence of chronic constipation is between 12-19% and 24-50% in the elderly population. There are abnormalities in physiological tests, manometry, electromyography (EMG), radiological findings. In this study, colon transit time and response to biofeedback therapy were evaluated in patients with dyssynergic defecation.

***Materials and Methods:*** The medical records of 17 patients who had dyssynergic defecation in our hospital's motility outpatient clinic between 2015-2018 were retrospectively collected and demographic characteristics, anal manometers, colon transit times and biofeedback treatment results of these patients were recorded. Patients with autonomic and motor neuropathy-causing conditions (diabetes mellitus, hypothyroidism, neurological disease, medulla spinalis injury, etc.) and those who had previously undergone abdominal surgery for any reason were excluded from the study.

***Results:*** 14 patients were female and 3 patients were male. The mean age was 45.6 (range 19-80). Patients had constipation for an average of 116 months (range 12 to 30 months). Two patients had anal surgery due to anal fissure. There were no internal and external sphincter insufficiencies in the anal manometers. In rectal capacity measurements test, 9 patients (52.9%) had normal rectal sensation, 7 had rectal hyposensitivity and 1 had rectal hypersensitivity. Colon transit time were found normal in 10 patients (58.8%) and prolonged in 7 (41.2%) patients. There was no correlation between colon transit time and gender (p:0.311) and anal sphincter tonus at rectal digital examination (p: 0.686). There was no significant relationship between colon transit time and rectal sensation (p: 0.96). However, rectal hyposensitivity was present in 5 (71.4%) of those who had prolonged colon transit time. All patients underwent biofeedback therapy. While 15 sessions biofeedback therapy were completed for those who benefited from the treatment, the treatment of those who did not benefit was terminated after 7 sessions. After biofeedback therapy, dyssynergic defecation of 6 patients (35.3%) disappeared in anal manometry and they also had no clinical complaints. There was not statistically significant between colon transit time and biofeedback treatment benefit (p: 0,161), however 60% (6/10) of those with normal colon transit time benefited from biofeedback treatment, while only 14.3% (1/7) of those with prolonged colon transit time benefited from colon transit time.

***Conclusion:*** As a result, in patients with dyssynergic defecation, colon transit time prior to biofeedback treatment may predict the response to treatment.

***Keywords:*** Biofeedback therapy, colon transit time, dyssynergic defecation

***PP-951***

## *Protective effect of Mesalazine on Thromboembolic Event Risk in Crohn's Disease*

**Ekin Yiğit Köroğlu[1], Kerem Kenarlı[1], Zeynep Melekoğlu Ellik[2], Serkan Duman[2], Aysun Çalışkan Kartal[2], Murat Törüner[2], Arif İrfan Soykan[2], Hülya Çetinkaya[2]**

*[1]Department of Internal Medicine, Ankara University School of Medicine, Ankara, Turkey*
*[2]Department of Gastroenterology, Ankara University School of Medicine, Ankara, Turkey*

***Background/Aims:*** In patients with Crohn's Disease (CD), thromboembolic events (TE) are one of the major causes of morbidity and mortality. In this study, we aimed to show the effect of mesalazine treatment on thromboembolic events and coagulation parameters in patients with CD in comparison to healthy volunteers(HV).

***Materials and Methods:*** A retrospective, analytic study including all patients with CD who under mesalazine treatment in our department between January,2010-December,2018. Patients who have any rheumatologic or hematologic disease were excluded. Patients treated with mesalazine and HV were compared on TE, coagulation parameters, thrombocyte counts and MPVs. We also compared the patients with endoscopically active and inactive disease; and the patients who only use mesalazine and who use additional treatment options.

***Results:*** A total of 100 CD patients with a mean age of 42,6(18-76) and 60 HV with a mean age of 49,9 (19-78) were enrolled. All patients use mesalazine. TE were seen in %4 of CD and %3.3 in HV(p>0,05). Median value of INR was founded 1,0 (0,9-1,6) in CD and 1,0 (0,9-1,2) in HV(p=0,031). Median thrombocyte counts were 299.5 (108-647) in CD and 280,5(180-561) in HV(p=0,431). Mean MPV was 9,069 on CD and 10,273 on HV (p=0.05). We compared the endoscopically inactive 38 patients(SES-CD-score:0-1) and endoscopically active 62 patients(SES-CD-score:2-3);it's seen that, under mesalazine treatment, TE ratio was%2,6 vs%4.8(p=0,509), respectively. Patients who gets additional treatment options like azathiopurine or anti-TNF drugs, TE ratio was%4,8(n=41) and%3,4(n=59) on the patients who only gets mesalazine(p=0,561). There is also no significant difference on coagulation parameters and MPV but thrombocyte count is higher in the patients who gets additional treatment(334,38 vs 290,67,p=0,038).

***Conclusion:*** Our results suggest that; using mesalazine in CD is protective from TE independently from additional treatments and endoscopically severity. Despite there is higher INR values and higher thrombocyte count in some subgroups,that doesn't result into a coagulation dysfunction or TE.

***Keywords:*** Mesalazine, crohns, thromboembolic event

---

***PP-952***

## *A profile of patients with chronic hepatitis C infection: Real-life data from Turkey*

**F. Tabak, S. Köse, B. Kurtaran, N.O. Çuvalcı, S. Ocak, G. Yörük, Y.K. Kaya, T. Yamazhan, A. Batırel, N. İnce, R. Karaali, E.Y. Zerdali, H.O. Çeri, and Hep-C Study Group**

***Background/Aims:*** Chronic hepatitis C virus (HCV) infection is a challenging health care problem in Turkey with an approximately 1% of prevalence. The epidemiology and patient profiles show regional differences in the country. The recent approval and reimbursement of the direct-acting antivirals (DAAs) provided effective treatment for a large group of chronic HCV infection. Two big medical societies of the country, Turkish Viral Hepatitis Society (VHSD) and Infectious Diseases and Clinical Microbiology Specialty Society (EKMUD) created an online database and collect data of patients with chronic hepatitis C (CHC) patients using in Turkey. We aimed to evaluate patient characteristics

***Materials and Methods:*** Between April 2017 and January 2018, 37 centers from Turkey recorded 1807 patients to the database. The centers well represented the country. All patients older than 18 years with CHC under DAAs were enrolled in this

non-interventional observational study. Demographics, clinical information, DAAs used, efficiency and safety information were recorded. Efficiency and safety results are given for the patients with 12 weeks after end of treatment (SVR12) data. An intention-to-treat analysis was performed. The study was approved by ethics committee and registered to clinicaltrials.gov (NCT03145844).

***Results:*** Among the 1807 patients; 919 (50.9%) were female and mean age was 56 ±15 years (range: 18-97) years. idi 64.7±10.7 years. The most common HCV genotype was G1: 1547 (85.7%), followed by G3: 132 (7.3%), G2:68 (3.8%), G4:53 (2.9%), and G5:5 (0.3%). Among G1, 86.7% was G1b and 13.3% was G1a. Cirrhosis was detected in 235 (13%) and 206 (86.5%) were compensated (Child-Pugh A) and 32 were (13.5%) decompensated (Child-Pugh B-C). Liver biopsy was available in 991 (55%); mean histologic activity index (HAI) was 7.68 and fibrosis score was 2.58. HAI was mild (1-6) in 35%, moderate (7-12) in 60%, and severe (13-18) in 5%. Fibrosis was mild in 48%, moderate in 43%, and advanced in 9%. Among the patients, 293 (16) were diabetic. Baseline viral load was 4.11 x$10^6$ copies/mL. Baseline laboratory studies were as follows: ALT 40 IU/mL, AST 38 IU/mL, albumin 4.3 gr/dL, and prothrombin time 12.6 sec.

***Conclusion:*** The study results which represent the HCV patient's profile in the country show that HCV patients are almost evenly distributed to both genders, in middle to advanced ages and infected with genotype 1b. Liver inflammation is moderate to severe in 2/3 of the patients, and fibrosis is moderate to advanced in almost half of the patients. Current patient profile suggests that the patients with HCV cannot be diagnosed or treated early. Diagnostic and therapeutic strategies should be effectively used for management of the patients in an early stage.

---

***PP-953***

## *Efficiency and safety of direct-acting antiviral in cirrhotic hepatitis C infection patients: Real-life data from Turkey*

**T. Yamazhan, Y. Taşova, S. Esen, N.C. Öztoprak, Y. Önlen, N.D. Sarı, I.E. Yıldız, D. İnan, E.Y. Zerdali, R. Güner, S. Barut, H.K. Kumbasar, S. Kaya, N. İnce, İ. Dökmetaş, M. Namidru, A. Batırel, O. Günal, S.A. Coşkuner, H. Karsen, I. Köksal, E. Akıncı, G.G. Tosun, H.C. Gül, F. Sırmatel, K. Türker, F. Duygu, M. Sünnetçioğlu, N. Erben, O. Karabey, A. Şener, E. Şenateş, G. Çelebi, A.S. Tartar, N. Baykam, U. Aslıhan, G. Yörük, F. Tabak, and Hep-C Study Group**

***Background/Aims:*** Anti-HCV treatment in cirrhotic patients was less effective than in noncirrhotic patients in pre-direct-acting antiviral (DAA) era. In cirrhotics, a significant increase in the incidence of liver-related events, including mortality, is likely in the following years. The development and approval of several DAAs in recent years has revolutionized antiviral therapy especially for cirrhotic patients. Turkish Viral Hepatitis Society (VHSD) and Infectious Diseases and Clinical Microbiology Specialty Society (EKMUD) created an online database and collect data of patients with chronic hepatitis C (CHC) patients using in Turkey. We aimed to evaluate effectiveness and safety of DAA in cirrhotic CHC patients.

***Materials and Methods:*** Between April 2017 and January 2018, 37 centers from Turkey recorded 1807 patients to the database. The centers well represented the country. Patients >18 years with CHC under DAAs were enrolled in this non-interventional observational study. Demographics, clinical information, DAAs used, efficiency and safety information were recorded Efficiency and safety results are given for the patients with 12 weeks after end of treatment (SVR12) data. The study was approved by ethics committee and registered to clinicaltrials.gov (NCT03145844).

***Results:*** Among the 1807 patients; 238 (13%) were cirrhotic. Of those, 118 (49.6%) were male and mean age was 64.7±10.7 years. Among cirrhotics, 206 (86.5%) were compensated (Child-Pugh A) and 32 were (13.5%) decompensated (Child-Pugh B-C). The most common HCV genotype was G1: 215 (90.3%; among G1 93% G1b, 7% G1a), followed by G2 (9, 3.8%), G3 (9, 3.8%), G4 (3, 1.3%), G5 (1, 0.4%). Previous treatment information was available for 228 patients: 111 out of the patients (49%) were treatment-experienced (64, 58% relapser and 47, 42% non-responder): 89% had used peginterferon/ribavirin, 8% peginterferon/ribavirin+boceprevir and 4% peginterferon/ribavirin+telaprevir. Baseline viral load was 4.11 x$10^6$ copies/mL. Baseline laboratory studies were ALT 50 IU/L, AST 51 IU/L, albumin 3.9 g/dL, and prothrombin time 13.5 sec. DAAs given to the patients are shown in Table 1. Viral responses at treatment week 4, at the end of treatment and at SVR12 were 85%

(147/173), 100% (188/188), and 98% (150/153) respectively (Figure 1). Laboratory studies at SVR 12 were ALT 23 IU/L, AST 28 IU/L, albumin 4.18 g/dL, and prothrombin time 12.7 sec. DAAs were generally well tolerated. On treatment; 53 patients (22.3%) experienced 88 adverse events: asthenia (9%), pruritus (8%), nausea (5%), insomnia (4%), headache (3%), herpes labialis activation (2%), anemia (15), and miscellaneous (5%).

***Conclusion:*** Real-life data show that HCV treatment with DAA is highly efficacious and safe in cirrhotic patients as well. Being decompensated or decompensated, treatment-naïve or previously treated (relapse or non-responder) do not seem to affect the response rate.

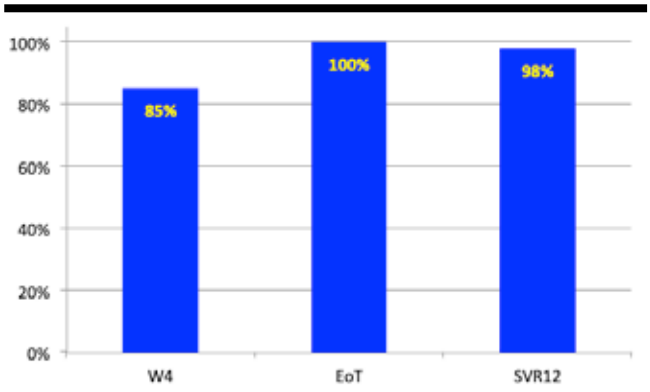



**Figure 1.** Virologic response rates on treatment week 4 (W4), end of treatment (EoT), and 12 weeks after the end of treatment (SVR12) (cut-off point <12 IU/mL).

***Table 1.*** Direct-Acting Antivirals Used in the Treatment of Cirrhotic Patients

| DAA | n | % |
|---|---|---|
| Sofosbuvir + Ledipasvir | 115 | 51 |
| Paritaprevir + Ritonavir + Ombitasvir + Dasabuvir | 53 | 24 |
| Sofosbuvir + Ledipasvir + Ribavirin | 37 | 16 |
| Paritaprevir + Ritonavir + Ombitasvir + Dasabuvir + Ribavirin | 9 | 4 |
| Sofosbuvir + Ribavirin | 9 | 4 |
| Paritaprevir + Ritonavir + Ombitasvir + Ribavirin | 3 | 1 |

***PP-954***

## *Efficiency and safety of direct-acting antivirals in geriatric HCV patients in Turkey*

**N.D. Sarı, T. Yamazhan, S. Kaya, F. Kusçu, Y. Önlen, A. Batırel, N. İnce, H.O. Çeri, N.C. Öztoprak, I.E. Yıldız, I. Köksal, R. Karaali, S. Tosun, S Köse, F. Sırmatel, A. Akbulut, O. Günal, F. Duygu, G. Çelebi, M. Namiduru, D. İnan, R. Güner, H. Karsen, E.Y. Zerdali, N. Baykam, H.C. Gül, K. Türker, K. Hizel, S. Barut, O. Karabay, M. Sünnetçioğlu, A. Sener, H.K. Kumbasar, E. Senates, I. Özgüneş, A. Gündüz, G. Yoruk, B. Kurtaran, F. Tabak, and HEP-C Study Group**

***Background/Aims:*** Advanced age is an unfavorable determinant affecting liver-related outcomes. Aging is an unfavorable factor for regression of fibrosis and HCC development even after HCV elimination. In interferon+ribavirin era, many geriatric patients left untreated due to increased prevalence of multiple comorbid conditions associated

with higher risk of side effects. Direct-acting antivirals (DAAs) have been recently reimbursed for HCV treatment in Turkey and HCV patients including those with advanced age are being treated. These patients are especially treated also for the prevention of transmission. Two big societies of the country, Viral Hepatitis Society (VHSD) and Infectious Diseases and Clinical Microbiology Specialty Society (EKMUD) have prepared to database to fill in the information of IDUs treated with DAAs. The information was analyzed for the efficiency and safety of DAAs for Turkish geriatric HCV patients.

***Materials and Methods:*** Thirty seven centers from different parts of the country were enrolled into the study. All HCV patients older than 18-year-old planned DAA treatment were entered to the database. The patients entered from April 2017 to February 2018 were included into the study. Among all patients, those in geriatric age (>65 years) were determined. The demographics, clinical findings, treatment information including adverse events and response data were recorded. Efficiency and safety of treatment were evaluated during and at the end of treatment and 12 weeks after the end of treatment (sustained viral response-SVR12). Intention to treat analysis was used for evaluation. The study was approved by the Ethics Committee of Cerrahpasa Medical School, and the study was recorded to www.clinicaltrials.gov (NCT03145844).

***Results:*** Among 1807 patients recorded in the database, 563 (31%) were in geriatric age group: 356 (63%) female, mean age 72 ±5 years (range 66-99 years). Comorbid conditions were: hypertension 289 (51.3%), diabetes 145 (25.8%), asthma 10 (1.8%), and COPD 9 (1.6%). Genotypes were Gt1: 529 (94%); Gt2: 18 (3.2%); Gt3: 9 (1.6%), Gt4: 6 (1%), and Gt5: 1 (0.2%). Among Gt1, 489 were subgenotyped: Gt1b: 456 (93%) and Gt1a: 33 (7%). Among geriatric patients, 117 (%21) were cirrhotic: compensated (Child-Pugh A): 101 and decompensated (Child-Pugh B-C): 16. Liver biopsy was available in 291 (%52) patients. Mean histologic activity index (HAI) was 8.17 and fibrosis score was 2.82. HAI was mild (1-6) in 28%, moderate (7-12) in 64%, and severe (13-18) in 8%. Fibrosis was mild in 43%, moderate in 44%, and advanced in 14%. 274 patients (48.7%) were treatment-experienced (relapse 66%, non-responder 34%): pegylated-interferon+ribavirin (PR) in 254 (93%), PR+Telaprevir in 11 (4%), and PR+Boceprevir in 9 (3%). At baseline, viral load was $5 \times 10^6$ copies/mL and biochemistry was as follows: ALT 46 IU/mL, AST 47 IU/mL, albumin 5.46 gr/dL, and prothrombin time 14.3 sec. DAAs given to the patients are shown in Table 1. Viral responses at treatment week 4, at the end of treatment and at SVR12 were 83% (305/366), 99% (395/398), and 98% (312/318) respectively. At SVR12, biochemistry was as follows: ALT 17 IU/mL, AST 20 IU/mL, albumin 4.34 gr/dL, and prothrombin time 12.8 sec. DAAs were generally well tolerated. On treatment; 121 patients (21.5%) experienced adverse events: asthenia 54 (10%), pruritus 47 (8%), nausea 22 (4%), headache 15 (3%), insomnia 13 (2%), body pain 6 (1%), weight gain 5 (1%), and miscellaneous 30(5%).

***Conclusion:*** The rate of cirrhotics among geriatric patients (117/563, 21%), was more frequent when compared to general HCV patient population in the database (235/1807, 13%) ($p<0.001$). While genders were almost evenly distributed in general HCV population (919 female-51%, 888 male-49%), female gender was more frequent in geriatric population (356 female-63%, 207 male-37%) ($p<0.001$). The findings show that cirrhosis and female gender are more frequent in geriatric HCV patients in the country. DAAs are efficacious and safe in older HCV patients as well.

***Table 1.*** Direct-Acting Antivirals Used in the Treatment of Geriatric Patients

| DAA | n | % |
|---|---|---|
| Paritaprevir + Ritonavir + Ombitasvir + Dasabuvir | 230 | 42.9 |
| Ledipasvir + Sofosbuvir | 197 | 36.7 |
| Ledipasvir + Sofosbuvir + Ribavirin | 48 | 9.0 |
| Paritaprevir + Ritonavir + Ombitasvir + Dasabuvir + Ribavirin | 37 | 6.9 |
| Sofosbuvir + Ribavirin | 18 | 3.4 |
| Paritaprevir + Ritonavir + Ombitasvir + Ribavirin | 4 | 0.7 |
| Paritaprevir + Ritonavir + Ombitasvir | 2 | 0.4 |

***PP-955***

## *Direct acting antivirals are effective and safe in intravenous drug users with chronic HCV infection: First report from Turkey*

**F. Sarıgül, B. Kurtaran, E.Y. Zerdali, S. Tosun, S. Esen, N.C. Öztoprak, K. Türker, N.C. Sarı, Y. Önlen, T. Yamazhan, K. Hizel, H. Karsen, S. Kaya, A. Batırel, Y. Taşova, A. Ulu, F. Tabak, and Hep-C Study Group**

***Background/Aims:*** More than half of the injection drug users (IDUs) are infected with hepatitis C infection (HCV) in Turkey and there has been a trend to increase in the numbers of IDUs. Direct-acting antivirals (DAAs) have been recently reimbursed for HCV treatment. These patients are especially treated also for the prevention of transmission. Two big societies of the country, Viral Hepatitis Society (VHSD) and Infectious Diseases and Clinical Microbiology Specialty Society (EKMUD) have prepared to database to fill in the information of IDUs treated with DAAs. The information was analyzed for the efficiency and safety of DAAs for Turkish IDUs.

***Materials and Methods:*** Thirty seven centers from differing parts of the country were enrolled into the study. All HCV patients older than 18-year-old planned DAA treatment were entered to the database. The patients entered from April 2017 to February 2018 were included into the study. Among all patients, IDUs were determined. The demographics, clinical findings, treatment information including adverse events and response data were recorded. Efficiency and safety of treatment were evaluated during and at the end of treatment and 12 weeks after the end of treatment (sustained viral response-SVR12). Intention to treat analysis was used for evaluation. The study was approved by the Ethics Committee of Cerrahpaşa Medical School, and the study was recorded to www.clinicaltrials.gov (NCT03145844).

***Results:*** Among the 1807 patient entered in the database, the way of transmission was unknown in 1434, and among the remaining 373, 123 (6.8% of all) were IDUs (114, 93% male; 9, 7% female, mean age 34±13 years, range 18-77 years). Genotypes were G1: 49 (40%); G3: 47 (38%), G2: 14 (12%); G4: 11 (9%), and G5: 1 (1%). Among G1, 46 were subgenotyped: 23 (50%) were G1a and 23 (50%) were G1b. Seven (6%) patients were cirrhotic; 6 Child-Pugh A, 1 Child-Pugh B-C. In 78 (63%), a liver biopsy was available: mean histologic activity index (HAI) was 7.70 and fibrosis score was 2.46. HAI was mild (1-6) in 31%, moderate (7-12) in 66%, and severe (7-12) in 3%. Fibrosis was mild in 48%, moderate in 49%, and advanced in 3%. 17(14%) patients were treatment-experienced (relapse 12, non-responder 4): pegylated-interferon+ribavirin (PR) in 14 (82%), PR+Boceprevir in 2 (12%), and PR+Telaprevir in 1 (%6). At baseline, viral load was 3.9 x $10^6$ copies/mL and biochemistry was as follows: ALT 84 IU/mL, AST 52 IU/mL, albumin 4.34 gr/dL, and prothrombin time 12.8 sec. Viral responses at treatment week 4, at the end of treatment and at SVR12 were 90.7% (39/43), 100% (65/65), and 98% (55/56) respectively. At SVR12, biochemistry was as follows: ALT 22 IU/mL, AST 23 IU/mL, albumin 4.38 g/dL, and prothrombin time 12.8 sec. DAAs were generally well tolerated. On treatment; 9 patients (7.3%) experienced adverse events: pruritus 3 (2.4%), insomnia 3 (2.4%), asthenia 2 (1.6%), headache 2 (1.6%), weight gain 2 (1.6%), and miscellaneous 4 (3.3%).

***Conclusion:*** Compared to all of the patients in the database, IDUs were younger (56 ±15 years vs.34±13 years, p<0.00001) and the rate of male/female was higher (888 male-49%/919 female-51% vs. 114 male-%93/9 female-7%, p<0.00001). Cirrhosis frequency was lower (235/1807; 13% vs. 7/123; 6%, p<0.05). The majority of genotypes among all of the patients is G1(86%, and among them1b), and G2 plus G3 are 11%. However among IDUs, rate of G1 is 40%, G3: 38%, and G2: 12%. Among G1, rates of G1a and G1b are comparable. IDUs with HCV were shown to younger, higher rate of male gender, and with less severe liver disease. DAAs were found efficacious and safe in this group as well.

***Table 1.*** Direct acting antivirals used in HCV patients using intravenous drug

| Drugs | n | % |
|---|---|---|
| Sofosbuvir + Ribavirin | 58 | 49.5 |
| Ledipasvir + Sofosbuvir | 18 | 15.4 |
| Paritaprevir + Ritonavir + Ombitasvir + Dasabuvir | 14 | 12.0 |
| Paritaprevir + Ritonavir + Ombitasvir + Dasabuvir + Ribavirin | 14 | 12.0 |
| Paritaprevir + Ritonavir + Ombitasvir + Ribavirin | 9 | 7.7 |
| Ledipasvir + Sofosbuvir + Ribavirin | 4 | 3.4 |

***PP-956***

## *A rare subepithelial lesion in the stomach: Over carcinoma metastasis*

**Ferhat Bacaksız, Sabite Kacar, Hale Gökcan, Bayram Yeşil, Volkan Gökbulut, Derya Arı, Mahmut Yüksel, Ömer Öztürk, İlyas Tenlik, Meral Akdoğan**

*Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey*

***Introduction:*** Subepithelial lesions are intramural or extramural origin lesions that are usually incidentally detected during endoscopic examination of the gastrointestinal tract, lumen protruding, covered with normal mucosa. Endosonography (EUS) is the gold standard method for detecting the wall floor or organ from which the subepithelial lesions originate. The stomach was diagnosed by EUS FNAB (Fine Needle Aspiration Biopsy). We aimed to present our case of ovarian ca metastasis which caused infiltrative subepithelial mass with propria.

***Case:*** A 52-year-old female patient was examined with abdominal pain and abdominal distention. A subepithelial lesion of approximately 2 cm in diameter was detected in the posterior wall of the corpus. In linear EUS, 25 mm diameter, heterogeneous, hypoechoic echo, m. The lesion was seen in the propria floor and had a slight irregular margin and suspected malignancy. As a result of FNAB, cytopathology findings were found to be consistent with primary ovarian carcinoma or papillary carcinoma of serous surfaces.

***Conclusion:*** Subepithelial mass lesions of the stomach are caused by wall or compression. EUS FNAB procedure has high diagnostic value. Tumor metastasis to the gastrointestinal wall is seen in low rates. Lesions originating from M. propria are often leiomyoma and GIST. Atypical metastases of the ovary such as endobronchial and leptomeningeal, as well as gastric metastases detected as subepithelial tumors have been reported in several cases in the literature. When evaluating subepithelial lesions in the stomach, it should be included in the differential diagnosis of metastasis in cancers associated with other organs such as ovary.

***Keywords:*** Endosonography, ovarian carcinoma, subepithelial lesion

---

***PP-957***

## *Esophageal motility disorders in patients with scleroderma: A single center experience*

**Ferhat Bacaksız, Ömer Öztürk, Derya Arı, Özlem Akdoğan, İlyas Tenlik, Volkan Gökbulut**

Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey

***Background/Aims:*** Systemic sclerosis is a rare, multisystemic disease characterized by an excessive amount of collagen synthesis and storage in the skin and visceral organs, the etiology of which is unclear. The esophagus is the most commonly involved segment in the gastrointestinal tract. Esophageal peristalsis, low LES (Low Esophageal Sphincter) pressure and accompanying gastroparesis in some patients are the main causes of increased acid reflux frequency. Initial assessment of GIS involvement is important in scleroderma disease. Early detection of esophageal involvement raises awareness of aggressive therapies for reflux. In this study, we investigated the demographic, endoscopic, manometric and 24 hour ph monitorization findings of patients with symptomatic scleroderma.

***Materials and Methods:*** Between January 2008 and December 2018, patients with scleroderma who presented with dysphagia or reflux complaints were included in the study. Demographic characteristics, esophageal 24 hour ph monitoring, endoscopic and manometric findings were retrospectively analyzed. These data were compared with the control group with similar gender, age, and number distribution and randomly selected examinations with normal complaints of esophageal manometry.

***Results***: Twenty-six patients with scleroderma were included in the study. The mean age was 47.9 years. 96.1% of the patients were female. All patients were symptomatic. 46.1% of the patients presented with reflux and 53.9% presented with dysphagia. The mean BMI in patients with scleroderma was 24.1 ± 5.6 and was significantly lower than the control group (p=0.017). The frequency of esophagitis was significantly higher when compared with the endoscopy findings of the control group (p=0.005). Approximately 61% of the patients had esophagitis. Pathological reflux was detected in 90% of the 10 patients with 24-hour pH monitoring and was significantly higher than the control group (p=0.013). The mean LES site distance of 26 patients with scleroderma in manometric measurements was 43.6. cm. The LES site distance of the control group is 43.03. It was measured in cm and was similar to patients with scleroderma (p> 0.05). The mean esophageal body resting pressure of the patients with scleroderma was-0.73 mmHg and was significantly lower than the control group (p=0.0001). The mean LES Resting Pressure was 3.3 mmHg and was significantly lower (p=0.028).

***Conclusion:*** Esophageal involvement is one of the most common presentations of scleroderma. Esophageal involvement is very likely when they become symptomatic, usually with reflux and dysphagiaScleroderma causes motility disorder and LES deficiency in esophagus. This condition precipitates reflux in patients. Chronic reflux exposure disrupts esophageal motility, and complications occur more frequently as long as this vicious cycle continues. Therefore, patients with scleroderma should be evaluated early in terms of esophageal involvement in the asymptomatic period, and diagnosed and treated early.

***Keywords:*** Esophageal manometry, gastroesophageal reflux disease, scleroderma

---

***PP-958***

## *Ustekinumab treatment in moderate or severe Crohn's Disease: Single center experience*

**Ferhat Bacaksız, Volkan Gökbulut, Derya Arı, Ömer Öztürk, Ertuğrul Kayaçetin**

Department of Gastroenterology, Ankara City Hospital, Ankara, Turkey

***Background/Aims:*** Ustekinumab is a monoclonal antibody that acts by inhibiting cellular activation and cytokine synthesis by interleukin (IL)-12 and IL-23 receptor blockade. In recent years, anti-TNF and anti-integrin monoclonal antibodies have been used effectively as induction and maintenance of remission in moderate and severe Crohn's disease (CD) as targeted therapies in CD. However, despite these treatments, remission induction failure or loss of achieved remission maintenance may be present in these patients. In recent years, another monoclonal antibody, ustekinumab, has been used in different countries around the world in case of insufficient response to conventional treatments or other biological agents or loss of remission or intolerance to anti-TNF agents in moderate and severe CD. We wanted to share our experience with ustekinumab in our study.

***Materials and Methods:*** Ten patients diagnosed with moderate or severe CD were included in the study. Ustekinumab treatment was initiated in 8 patients due to non-responsiveness to at least one biological agent treatment, and 2 patients were started due to side effects of other biological agents. The first subcutaneous 90 mg injection treatment was given 3 months after IV induction dose according to their weight. Subsequently, 90 mg subcutaneous ustekinumab treatment was continued every two months. Crohn's Disease Activity Index (CDAI) scores were recorded before and at the beginning of each treatment.

***Results:*** The median age of the patients was 37 (22-58) years. 7 patients were male and 3 were female. %90 of the patients had experience of 2 biological agents. While 1 patient was in remission with Ustekinumab treatment, he also had Ankylosing Spondylitis (AS). Although CD was in remission, because of the activation of AS, ustekinumab was discontinued on the recommendation of the rheumatology department and the patient was excluded from the study. In% 66.6 of 9 patients, CDAI regressed below 150 points after 28 weeks of follow-up. CDAI could not be calculated due to ileostomy in 1 patient, but the patient was clinically in remission. Although CDAI decreased significantly in 1 patient, CDAI was accepted as a partial response because it was above 150 points. Treatment was discontinued in 1 patient (11%) due to insufficient response. Periodic CDAI results and final status of the patients are given in table-1.

***Conclusion:*** Ustekinumab appears to be effective on moderate and severe CDs that had previously been treated with a biological agent. Studies with more patients are needed.

***Keywords:*** CDAİ, Crohn's disease, ustekinumab

***Table 1.*** CDAI results and final status of patients

| | CDAI before IV infusion dose (point) | CDAI before 1. SC dose (point) | CDAI before 2. SC dose (point) | CDAI before 3. SC dose (point) | final status |
|---|---|---|---|---|---|
| Patient 1 | 402 | 193 | 243 | 149 | Remission |
| Patient 2 | 262 | 60 | 135 | 89 | Remission |
| Patient 3 | 165 | 27 | 30 | 24 | Remission |
| Patient 4 (AS) | 178 | 64 | - | - | Stopped |
| Patient 5 (Ileostomy) | ? | ? | ? | ? | Clinically in remission |
| Patient 6 | 264 | 392 | - | - | Stopped |
| Patient 7 | 195 | 124 | - | 92 | Remission |
| Patient 8 | 397 | 260 | - | 173 | nearly remission |
| Patient 9 | 237 | 103 | 68 | 61 | Remission |
| Patient 10 | 362 | 256 | 113 | 130 | Remission |

***PP-959***

## *The extraction of the more than 100 stones from choledoc and intrahepatic bile ducts with ERCP*

**Gökhan Güngör**

*Department of Gastroenterology and Hepatology, Selçuk University School of Medicine, Konya, Turkey*

A 40-years old male patient admitted to our hospital with, right upper quadrant pain, jaundice, dyspeptic symptoms, weight loss, chills and fever. His history revealed that gall bladder was operated and ERCP was performed at another center 2 weeks ago. On physical examination, his vital signs were stable, fever was 37.6 C, heart-lung examination were normal, there was tenderness in the upper right abdomen and mildly jaundice in conjunctivas. On laboratory analysis, hemoglobin, hematocrit, platelet count were normal, White blood cell count was 12.700 $mm^3$, C-reactive protein 72 mg/dL, erythrocyte sedimantation rate, 64 mm/h, procalcitonin 0,55 ug/L, aspartate/alanine aminotransferases 98/119 u/L, gamma glutamyl transferase 1143 u/L, alkaline phosphatase 1003 u/L, total bilirubin 5,71 mg/dL, direkt bilirubin 3,7 mg/dL, Ca 19-9 7143 u/mL. Abdominal MRI and MR-cholangiopancreatography was performed to patients, liver vertical size was 205 mm, gall bladder operated, choledocus diamater was 11 mm, common hepatic bile duct 14 mm, right intrahepatic bile duct 10 mm, left intrahepatics minimal dilate, bile ducts dilated and tortuozed; there were too many large and small stones in choledoc, comon hepatic and intrahepatic bile ducts. There were also cholangitis signs. (Figure 1) Endoscopic retrograd cholangiopancreatography (ERCP) was performed to patients. In cholangiogram, choledoc, common bile duct and intrahepatic were wide and multiple stones were observed, especially in the choledoc and right intrahepatic bile duct. Extensive endoscopic sphincterotomy was performed, later choledoc and intrahepatic bile ducts were repeatedly cleaned with balloons, more than one hundred stones were extracted into the duodenal lümen (Figure 2). After ERCP, the patient's complaints regressed and cholestatic enzymes and bilirubins decreased. Control ERCP was performed 4 weeks later, residual stones was not observed in cholangiogram and contrast agent rapidly discharged from bile ducts. Liver function tests, cholestatic enzymes and bilirubins were normal. ERCP is an effective method for the extraction of the bile duct stones and therapeutic procedures of biliary tract. This case who was cleaned more than 100 stones was an interesting experience for us.

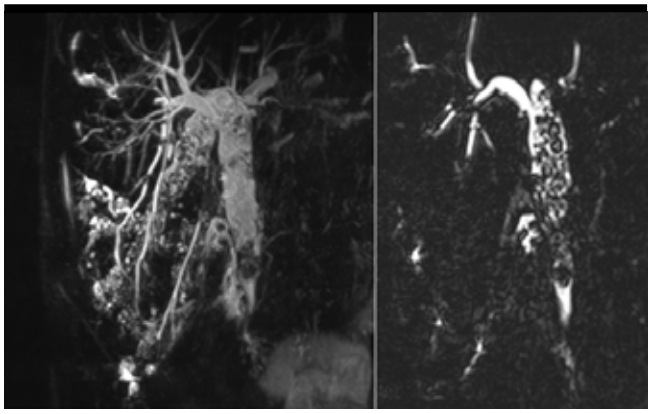


**Figure 1.** MRCP shows a lot of stones.

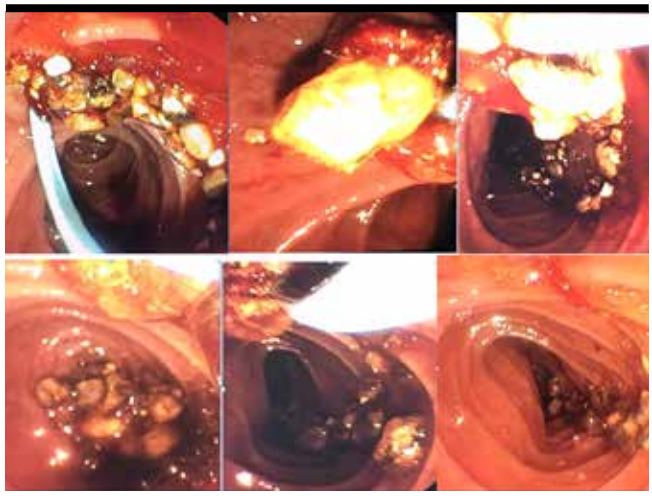


**Figure 2.** The extraction of the multipl stones by ERCP.

***PP-960***

## *The frequency of allergic susceptibility to non-gluten foods in patients with gluten sensitive enteropathy*

**Sema Terkenli[1], Gökhan Güngör[2], Şevket Arslan[3], İbrahim Güney[1]**

*[1]Department of Internal Medicine, Konya Training and Research Hospital, Konya, Turkey*
*[2]Department of Gastroenterology Selcuk University School of Medicine, Konya, Turkey*
*[3]Department of Allergy and Immunology, Necmettin Erbakan University School of Medicine, Konya, Turkey*

***Background/Aims:*** Previous studies reported that allergic manifestations more often in patients with gluten-sensitive enteropathy (Celiac Disease / CD), whereas recent studies have reported that the frequency of allergic diseases in these patients are similar to the normal population. In this study, we evaluated whether is allergic susceptibility to non-gluten foods more often or not in patients with CD.

***Materials and Methods:*** Between 18 and 65 aged, 52 patients with serologic, endoscopic and histopathologic proven CD and as a control group 35 adult volunteers without CD from the gastroenterology outpatient clinic were included in the prospective-controlled study. The absence of CD in the control group was excluded by serologic antibodies, HLA-DQ2 and DQ8. Epidermal skin prick test (allergopharma) containing food allergens was applied to the forearm volar surface of all subjects and food allergy stories were questioned. In prick test, cow's milk, egg, chicken, hazelnut, peanut, walnut, almond, soy, rice, oat, corn, rye, tomato, orange, banana and kiwi antigens were used and 1% histamine was used as positive control, 0.9% saline and 0.4% phenol solution was used as negative control. Test results were evaluated 15 minutes after administration. Epidermal prick test was accepted as positive in the presence of erythema and edema of 3x3 mm or more. Prick to prick test and elimination-provacation tests were also planned to individuals who were positive skin prick test.

***Results:*** There were no statistical difference in terms of gender distribution, weight, body mass index and history of autoimmune disease in CD and control group. The mean age of the CD patients was higher than the control group. There was a celiac family history in 6 patients in the CD group and 1 person in the control group. Skin prick test including respectively peanut, almont and orange antigens were positive in 3 patients with CD (5,8%), but none of them had a clinical allergy history to these foods. Also, prick to prick tests were negative and atopy was not observed in oral provocation tests. Skin prick test was negative in all control group. The characteristics and results of the groups are given in the Table 1.

***Conclusion:*** Our results supported that there is no increased allergy frequency to non-gluten food by epidermal prick test in celiac disease compared with control group.

***Keywords:*** Gluten-sensitive enteropathy, food allergies, epidermal skin prick test

***Table 1.*** The characteristics and results of the groups

| Parameters | CD group (n=52) | Control group (n=35) | p |
|---|---|---|---|
| Gender (M / F) | 37/15 | 20 / 15 | 0.178 |
| Age (year) | 41.2 ± 15.1 | 33.3 ± 5.8 | 0.001 |
| Weight (kg) | 67.6 ± 12.2 | 68.9 ± 16.3 | 0.690 |
| Height (cm) | 167.3 ± 9.8 | 168.2 ± 9.1 | 0.667 |
| BMI (kg/m$^2$) | 24.2 ± 4.1 | 24.1 ± 3.8 | 0.874 |
| CD family history (n) | 6 / (%11.5) | 1 / (%2.9) | 0.234 |
| Autoimmune disease history (n) | 5 / (%9.6) | 3 / (%8.6) | 0.869 |
| Skin prick test pozitivity (n /%) | 3 /%5.8 | - | 0.270 |
| Prick-to prick test pozitivity (n) | - | - | - |
| Food (non-gluten) allergy history (n) | - | - | - |
| Provacation tests (n) | - | - | - |

***PP-961***

## *The prevalance of non-alcoholic fatty liver disease is alarming*

**Vahide Betul Canitez[1], Gökhan Güngör[2], İbrahim Guney[1], Mehmet Sedat Durmaz[3], İsmet Tolu[4], Mehmet Uyar [5]**

[1]Department of Internal Medicine, Konya Training and Research Hospital, Konya, Turkey
[2]Department of Gastroenterology and Hepatology, Selçuk University School of Medicine, Konya, Turkey
*[3]Department of Radiology, Selçuk University School of Medicine, Konya, Turkey*
*[4] Department of Radiology, Konya Training and Research Hospital, Konya, Turkey*
*[5]Department of Public Health, Necmettin Erbakan University School of Medicine, Konya, Turkey*

***Background/Aims:*** The global prevalence of non-alcoholic fatty liver disease (NAFLD) is known to be approximately 25%, but it is estimated to increase gradually in recent years. Ultrasonography (USG) is an imaging modality recommended as a non-invasive examination in epidemiologic screening and in the first step of NAFLD diagnosis. The purpose of this study was to predict the prevalence of NAFLD with USG screening in Konya province of Turkey.

***Materials and Methods:*** The number of individuals for reflect the prevalence of the City Center was calculated by the Public Health Department. The cluster sampling method was used with deviation persentage by 7%, 80% power and 95% confidence interval. The number of people calculated as minimum 392 combined with design effect. Forty-five people were called from each of the 10 randomly selected family health centers. The demographic data, height, weight, waist circumference, body mass index (BMI) measurements, biochemical analysis of the participants were recorded and HOMA-IR and Fib-4 scores were calculated. Ultrasonography was performed to the participants by two experienced radiologists. Steatosis was graded according to the increase in liver echogenicity, diaphragm and intrahepatic vessel borders in USG. The presence of the liver disease history, alcohol and drugs usage such as corticosteroid, amiodarone, methotrexate, tamoxifen, diltizem, valproate was determined exclusion criterias.

***Results:*** Three hundred and ninety-five people completed the study, 36 people refused the study, 6 people were excluded, 18 people discontinued to research. Of the participants, 85 were from Karatay, 151 were from Meram and 159 were from Selcuklu region, 198 were male (48.1%) and 197 were female (47.8%), the mean age was 38.7 ± 12.0 years (18-65), mean weight was 79,2 kg, mean body mass index was 28,7 kg/m$^2$ (> 25-overweight). Of 395 individuals, 220 (55,6%) had steatosis and 175 (44,4%) were normal. Steatosis rates were 56,6% in men, 54,8% in female. The measurement and laboratory analysis of groups were given Table 1. As the degree of ultrasonographic steatosis increases (Grade 1-3); BMI, waist circumference, blood pressure, glucose, insulin HOMA-IR, ALT, GGT, total cholesterol, triglyceride levels were significantly higher (ANOVA test, p<0.05) (Table 2). Hepatosteatosis rate was 88.4% in diabetics and 51.7% in non-diabetics. The mean fib-4 score was also higher in patients with steatosis (0.67/0.80, p<0.001,

independent T test). There was a positive correlation between the stage of steatosis and Fib-4 scores (r=0.191, p<0.001).

***Conclusion:*** In this cross-sectional study, the prevalence of NAFLD was found to be 55.6%. The prevalence is 20-40% in the general population, 55-60% in diabetics, 70% in metabolic syndrome, 75-90% in morbidly obesity. It has been reported as 20-51% in histological studies, 17-46% in ultrasonographic studies and 31% in a study performed with MR spectroscopy. Our study was a cross-sectional, non-invasive, sonographic screening and the outcome was higher than expected. Ultrasonographic evaluation, although criteria, includes an operator-dependent subjectivity. However, this higher rate may be related to the overweight of our study population. As the degree of ultrasonographic steatosis increases, deterioration of metabolic parameters supports this situation. With these rates, NAFLD is not only a disease but also a public health problem.

***Keywords:*** Non-alcoholic fatty liver disease, prevalance, ultrasonography, cross-sectional screening

***Table 1.*** The measurement and laboratory analysis of groups

| | Steatotic (n=220) | Non-steatotic (n=175) | p |
|---|---|---|---|
| Age (years) | 43,08 | 33,36 | < 0,001 |
| BMI (kg/m$^2$) | 31,4 | 25,4 | < 0,001 |
| Waist circumference (cm) | 99,7 | 85,0 | < 0,001 |
| Systolic BP (mmHg) | 127,8 | 119,9 | < 0,001 |
| Dyastolic BP (mmHg) | 84,2 | 77,1 | < 0,001 |
| Glucose (mg/dL) | 105,9 | 87,6 | < 0,001 |
| Insülin (ıu/mL) | 18,1 | 10,3 | < 0,001 |
| HOMA-IR | 5,44 | 2,27 | 0,001 |
| Creatinine (mg/dL) | 0,85 | 0,83 | 0,194 |
| AST (ıu/mL) | 23,7 | 21,6 | 0,01 |
| ALT (ıu/mL) | 25,4 | 18,0 | < 0,001 |
| GGT (ıu/mL) | 31,2 | 21,8 | 0,001 |
| T. Bilirubin (mg/dL) | 0,64 | 0,65 | 0,804 |
| T. Cholesterol (mg/dL) | 196,2 | 181,6 | < 0,001 |
| LDL (mg/dL) | 120,7 | 113,9 | 0,056 |
| HDL (mg/dL) | 43,1 | 45,1 | 0,039 |
| Triglyceride (mg/dL) | 166,3 | 119,4 | < 0,001 |

(Independent T test)

***Table 2.*** The differences between groups according to ultrasonographic grading

| | Hepatosteatosis (n) | | | | |
|---|---|---|---|---|---|
| | Absence (n=175) | Grade 1 (n=130) | Grade 2 (n=78) | Grade 3 (n=12) | p |
| BMI (kg/m$^2$) | 25.4 | 30.5 | 32.1 | 35.8 | < 0.001 |
| Waist circumference (cm) | 85.0 | 96.7 | 102.8 | 112.7 | < 0.001 |
| Systolic BP (mmHg) | 119.9 | 126.1 | 128.4 | 133.0 | < 0.001 |
| Dyastolic BP (mmHg) | 77.1 | 83.6 | 84.2 | 90.6 | < 0.001 |
| Glucose (mg/dL) | 87.6 | 103.8 | 104.6 | 136.4 | < 0.001 |
| Insülin (ıu/mL) | 10.3 | 16.5 | 19.3 | 28.7 | < 0.001 |
| HOMA-IR | 2.2 | 4.7 | 5.9 | 8.9 | 0.003 |
| AST (ıu/mL) | 21.6 | 23.3 | 24.1 | 24.9 | 0.059 |
| ALT (u/L) | 18.0 | 23.2 | 28.4 | 29.1 | < 0.001 |
| GGT (u/L) | 21.8 | 27.1 | 26.2 | 38.9 | < 0.001 |
| Total cholesterol (mg/dL) | 181.6 | 194.3 | 201.1 | 184.8 | 0.002 |
| LDL (mg/dL) | 113.9 | 120.1 | 122.7 | 114.1 | 0.224 |
| HDL (mg/dL) | 45.1 | 43.8 | 42.0 | 43.2 | 0.110 |
| Triglyceride (mg/dL) | 119.4 | 158.1 | 180.8 | 160.5 | 0.004 |
| Fib-4 score | 0,67 | 0,78 | 0,82 | 0,92 | 0.003 |

(ANOVA test)

***PP-962***

## *Multisystem manifestations of a Crohn's disease: Unfortunate course*

**İlker Şen, Canan Alkım, Hüseyin Alkım**

*Department of Gastroenterology, Şişli Hamidiye Etfal Training and Research Hospital, İstanbul, Turkey*

In Crohn's disease, patients primarily present with abdominal pain and diarrhea, besides this classical presentation, patients with Crohn's disease may also present with many extraintestinal manifestatitons. Patient, we report herein has skin involvement which has misdiagnosed as Verrucous Carcinoma, and Primary sclerosing cholangitis progressed to chirrosis. 38 years old man, he had been followed up with the diagnosis of ileocolonic Crohn's disease and sclerosing cholangitis for 20 years. He had used systemic corticosteroids and azathioprine for Crohn but had stopped the treatment and follow up 4 years ago on his own. During this period presented to another hospital with extensive verrucous plaques on the left foot, knee, and thigh. Plastic surgery clinic consideres these lesions as Verrucous Carcinoma. Right thumb and partial right foot amputations performed respectively (Figure 1). After these operations patient expereinced a Crohn's activation and referred to our clinic again. During phisical examination, irregular verrucous vegetating plaques on the left foot, knee, inner thigh, inguinal region, umbilicus, and gluteal areas were observed. The lesions had elevated, well-defined, and erythem-atous borders, which were partially surmounted by pustules and yellow crusts on the plaque surface. Multiple skin biopsies taken from limb lesions revealed marked pseudoepitheliomatous hyperplasia, intraepidermal and mostly eosinophilic and neutrophilic pustules, microabscesses, edema, and a dense, superficial, and deep dermal inflammatory infiltrate composed mainly of eosinophils, neutrophils, and lympho-cytes (Figure 2). Pyoderma vegetans diagnose associated with Crohn's made and reevaluation of previous histopathologic samples with a diagnosis of verrucous carcinoma, it is found that the diagnosis of PV would be appropriate also for former lesions. Prednisolone at a starting dose of 60 mg per day was introduced. The patient was also on ursodeoxycholic acid, oral ciprofloxacin and metronidazole, and local wound care. The therapy improved the lesions in a short time. At the end third month steroid stopped ant anti-TNF therapy started. During follow up, Primary Sclerosing cholangitis progressed to end stage cirrhosis and during assessment for liver transplantation. cardiology consulatiton revealed severe mitral stenosis and spontaneous echo contrast in left atrium. Preparation for transplant halted. In conclusion, when patients with inflammatory bowel disease present with other system involments, differential diagnosis should carefully be done with related clinics. PV is also considered a marker for IBD. Intestinal and liver workups are indicated in PV.

**Figure 1.** Irregular verrucous vegetating plaques on the left foot.

**Figure 2.** Multiple foci of pustules composed of both eosinophils and neutrophils within the acanthotic epidermis

***PP-963***

## *Determination of hepatitis C genotype types in thrace and comparison of data in Turkey*

***Background/Aims:*** There are over 200 million Hepatitis C infected individuals worldwide, and estimated 71 million people have chronic hepatitis c infection. Six main genotypes and 70 subtypes have been identified. Geographical differences play an important role in HCV genotype distribution. Determination of hepatitis C virus genotype is critical in the treatment and eradication of chronic hepatitis c infection.

***Materials and Methods:*** Genotypes of 75 patients (45 female, 30 male) who were followed due to chronic hepatitis c infection were examined from hospital electronic system and patient files. A total of 24 clinical trials data conducted in Turkey between the years 2007-2018 were analysed (3892 patients). Studies were separated by geographical regions in Turkey and compared with our data.

***Results:*** The most common genotype is type 1b(%75) in Turkey. Then respectively genotype type 1a (9.3%), 3 (5.4%), 2 (3%) and 4 (2.6%). In our study, genotype 1 (subtip 1b 86.1% and 1a 13.8%) was found with the highest rate of 86.6%. Genotype 3 (6.6%), genotype 4 (5.3%) and genotype 2 (1.3%) were determined. The majority of patients were female (60%) and over 60 years (56%).

***Conclusion:*** Hepatitis C virus genotype distribution in Thrace and Turkey was similar, but the frequency of genotype 4 is more.

***Table:*** Hepatitis C virus genotype data based on geographical regions in Turkey

| Geographical Regions | Patients(n) | Genotype (G)% 1a | 1b | 1(other) | G2% | G3% | G4% | G5% | G6% |
|---|---|---|---|---|---|---|---|---|---|
| Thrace | 75 | 13.8 | 86.1 | | 1.3 | 6.6 | 5.3 | | |
| Mediterranean | 1464 | 7.7 | 69.5 | | 4.7 | 15.8 | 1.6 | 0.8 | 0.4 |
| Antalya | 422 | 14.7 | 63.3 | 5.4 | 3.5 | 11.1 | 1.6 | | |
| Adana | 119 | 12.6 | 58.8 | | 7.6 | 16.8 | 3.4 | 0.8 | |
| Mersin | 236 | 1.7 | 84.7 | 5.9 | 2.1 | 4.2 | 0.8 | | 0.4 |
| Hatay | 324 | 1.9 | 71.2 | | 9.2 | 0.9 | 1.7 | | |
| K.maraş | 313 | | | 51.7 | 1.2 | 46 | 0.9 | | |
| Aegean | 520 | 9.9 | 88.6 | | 1.3 | 0.9 | 5.1 | | |
| İzmir | 345 | 9.9 | 87.2 | | 0.9 | 1.4 | 1.6 | | |
| Manisa | 100 | | 90 | 2 | 2 | | 5 | | |
| Aydın | 41 | | | 90.2 | 2.4 | 2.4 | 4.9 | | |
| Afyon | 34 | | | 91.1 | | | 8.9 | | |
| Marmara | 785 | 22.9 | 56.5 | | 0.4 | 10.4 | 1.8 | | |
| İstanbul | 554 | 22.9 | 56.5 | | 0.5 | 16.9 | 0.5 | | |
| Bursa | 231 | | | 92.6 | 0.4 | 3.9 | 3.1 | | |
| Central Anatolia | 207 | 2.4 | 53.0 | | 4.8 | 0.6 | 8.9 | | |
| Konya | 80 | | 100 | | | | | | |
| Kayseri | 375 | 2.4 | 57.6 | | 3.2 | 1.1 | 32 | | |
| Eskişehir | 203 | 2.4 | 17.7 | 74.4 | 1.5 | 2 | 2 | | |
| Nevşehir | 170 | | 37 | 45.1 | 14.5 | 1.2 | 1.6 | | |
| Black Sea | 425 | 9.5 | 84.8 | | 1.3 | 2.0 | 0.2 | | |
| Doğu Karadeniz | 304 | 5.3 | 87.5 | | 1.6 | 4.9 | 0.7 | | |
| Zonguldak | 39 | 2.6 | 97.4 | | | | | | |
| Amasya | 82 | 20.7 | 69.5 | 6.1 | 2.4 | 1.2 | | | |
| Southeastern Anatolia | 351 | 2.8 | 85.8 | | 6.4 | 2.7 | 0.9 | | |
| Diyarbakır | 74 | | 87.8 | 4.1 | 2.7 | 5.4 | | | |
| Gaziantep | 160 | | 98.0 | | 0.7 | 1.2 | | | |
| Adıyaman | 71 | 8.4 | 71.8 | 4.2 | 11.2 | 4.2 | | | |
| Sanlıurfa | 46 | | | 85.2 | 11.1 | | 3.7 | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Eastern Anatolia | 140 | 10.1 | 86.9 | | 2.1 | 5.6 | | | |
| Erzurum | 69 | 10.1 | 86.9 | | 1.4 | 1.4 | | | |
| Elazıg | 71 | | | 87.3 | 2.8 | 9.8 | | | |
| Total | 3967 | 9.8 | 76,4 | | 2.7 | 5.5 | 3.6 | 0.1 | 0.1 |

***PP-964***

## *A new risk-scoring system for colorectal cancer and Polyp screening: Turkish colorectal cancer and Polyp study group*

**Levent Erdem[1], Erdem Akbal[1], Dilek Tucer[2], Enver Üçbilek[3], Erdem Koçak[1], Ahmet Uyanıkoğlu[4], Can Dolapçıoğlu[5], Emel Ahısalı Erim[6], Göktuğ Şirin[7], Hüseyin Alkım[8], Aliye Soylu[9], Levent Doğanay[10], Kemal Kürbüz[11], Kamil Özdil[10], Hakan Alagöz[12], Tuğba Erürker Öztürk[13], Mesut Sezik[14], Gupse Adalı[10], Mehmet Çoban[16], Saadettin Hülagü[7], Ali Değertekin[15], Alp Atasoy[16], Filiz Akyüz[16], İlam Gaffarlı[17], Murat Saruç[17], Engin Altıntaş[3], Orhan Sezgin[3], Nurdan Tözün[17]**

*[1]Department of Gastroenterology, İstanbul Bilim University, İstanbul, Turkey*
*[2]Department of Gastroenterology, Edirne State Hospital, Edirne, Turkey*
*[3]Department of Gastroenterology, Mersin University School of Medicine, Mersin, Turkey*
*[4]Department of Gastroenterology, Harran University School of Medicine, Şanlıurfa, Turkey*
*[5]Department of Gastroenterology, Kartal Training and Research Hospital, İstanbul, Turkey*
*[6]Department of Gastroenterology, Koç University School of Medicine, İstanbul, Turkey*
*[7]Department of Gastroenterology, Kocaeli University School of Medicine, Kocaeli, Turkey*
*[8]Department of Gastroenterology, Şişli Hamidiye Training and Research Hospital, İstanbul, Turkey*
*[9]Department of Gastroenterology, Bakırköy Sadi Konuk Training and Research Hospital, İstanbul, Turkey*
*[10]Department of Gastroenterology, Ümraniye Training and Research Hospital, İstanbul, Turkey*
*[11]Department of Gastroenterology, İstanbul, Turkey*
*[12]Department of Gastroenterology, Medikal Park Hospital, Ankara, Turkey*
*[13]Department of Gastroenterology, Uludağ University School of Medicine, Bursa, Turkey*
*[14]Department of Gastroenterology, Sancaktepe Hospital, İstanbul, Turkey*
*[15]Department of Gastroenterology, Ufuk University School of Medicine, Ankara, Turkey*
*[16]Department of Gastroenterology, İstanbul University School of Medicine, İstanbul, Turkey*
*[17]Department of Gastroenterology, Acıbadem University School of Medicine, İstanbul, Turkey*

***Background/Aims:*** We aimed to investiaged incidence of CRC and polyp and clinical risk factors. Another important purpose of this study develop a new scoring system for early detect to CRC and polyp.

***Materials and Methods:*** We enrolled 6508 subjects with colonoscopic screening over the 18 age. We exluded current or previous symptoms suggestive of CRC, a personal history of CRC, colonic adenoma, inflammatory bowel disease, other malignancy. We recorded age, smoking, alchol comsumption, body mass index, polyp incidence, polyp size, number and localication and pathologic findings. Logistic regression analysis was used risk factor for CRC and polyp. Receiver curve analysis was used for scoring system. Sensivity, specifity, positive and negative predictive values were calculated.

***Results:*** We detected CRC incidence% 2.4 and polyp incidence% 31. Adenomatous polyp incidence was detected% 80 in all polyp subtypes. Age, male gender, obesity (BMI>30), smoking (>20 packetayears) and family history were found to be independently risk factors for adenomatous polyp. We have developed a new scoring systems used to these factors. Turkish Colorectal Cancer and Polyp Study Group screeningscore for prediction of risk for colorectal adenomatous polyp. This score >4 adenomatous polyp detection, sensivity% 81, specifity% 40 (AUC ve p değeri, CI). Odds Ratio: 2.3,% 95 CI (2.3-3.6), p<0.001. Positive Predictive Value :% 25.68 (CIo24.79-26.60). Negative Predictive Value: % 89.84 (CIo88.0-91.3).

***Conclusion:*** Although screenig of colon cancer and polyp starts at 50 years in the world, we recommend that screening for colorectal cancer can start under at 50 years according as Turkish Colorectal Cancer and Polyp Study Group screening. When the score was ≥ 4, subjects must be included screning tests for colorectal cancer and polyp.

***Keywords:*** Colon C9ncer, polyp, screening metod

---

***PP-965***

## *Development of ovarian cancer during treatment with a TNF-α antagonist for Crohn's disease: An unusual case report*

**Muhammed Bahaddin Durak[1], Ertuğrul Kayaçetin[1], Volkan Gökbulut[1], Derya Arı[1], Bayram Yeşil[1], Ferhat Bacaksız[1], Ahmed Enes Demirci[1], Buket Karsavuranoğlu[1], Berfin Şenol[1], Mustafa Özdemir[2], Kevser Oğuz[3]**

[1]Department of Gastroenterology, Health Science University Ankara City Hospital Bilkent, Ankara, Turkey
[2]Department of Radiology, Health Science University, Ankara City Hospital Bilkent, Ankara, Turkey
[3]Department of *Gynecology and Obstetrics, Health Science University, Ankara Etlik Zubeyde Hanim Women's Disease Training and Research Hospital, Ankara, Turkey*

***Introduction:*** The increased risk of lymphoma and non-melanoma skin cancer in inflammatory bowel disease (IBD) is well recognized using long term TNF-α antagonists. In this case, we present an unusual case of development of ovarian cancer during treatment infliximab (IFX) in CD.

***Case:*** A 54-year-old woman presented abdominal pain, fatigue, nausea and vomiting was referred to gastroenterology department of the Turkey Yüksek İhtisas Hospital, in march 2007. Inflammatory markers (white blood cell, c-reactive protein, erythrocyte sedimentation rate) increased and was performed colonoscopy. Colonoscopy findings and histopathologic features was compatible with localized ileocaecal CD. She had negative malignity history in first degree relatives. Mesalazine was started 4g/d. And then the patient was followed up each 6 months to assessment Harvey-Bradschaw index and inflammatory markers. She complained intermittent mild abdominal pain and fatigue during outpatient visits. The patient presenting with moderate abdominal pain was admitted to the emergency room in june 2014 and increased inflammatory markers. Computerized tomography (CT) was taken. The CT scan showed thickening of the terminal ileum wall and narrowing of distal ileal segments. The patients was admitted to the ward and started steroid for remission induction combined with azathiopurine (AZA) 100mg/d for maintenance therapy. The patient showing clinical remission was discharged from the ward. During AZA therapy decreased neutrophil count, decreased dose to 50mg/d and was administered IFX 5mg/kg infusion. Her complaints improved after the third IFX infusion and continued maintenance therapy per in an 8 weeks for 44 months. AZA was stopped at the end of a year. The patient was asymptomatic and had negative inflammatory markers during outpatient visits. Abdominal ultrasonography taken in January 2019, showed a 2.5 cm solid left adnexal mass. Due to this finding an magnetic resonance image (MRI) was scheduled. The MRI showed 10x11 cm size left adnexal mass with solid and cystic components. She was consulted gynecologist and decided to perform total abdominal hysterectomy with bilateral salpingo-oophorectomy procedure. Histopathologic findings was compatible ovarian serous adenocarcinoma. Postoperative 6 cure chemotherapy regimen of paclitaxel and carboplatin was administered. The patient is currently in remission from CD and is continuing with mesalazine treatment.

***Conclusion:*** Recent data suggests that anti-TNF agents increase the risk of non-Hodgkin's lymphoma; however, there is limited evidence on the risk of solid tumors. The case we describe is to our knowledge the second reported in the world literature concerning an ovarian cancer and the first reported in Turkey literature concerning a solid organ cancer in a CD patient taking IFX.

***Keywords:*** Ovarian cancer, infliximab, Crohn's disease

***PP-966***

## *Retrospective analysis of patients with granuloma formation in liver biopsy*

**Mustafa Emre Duygulu[1], Talat Ayyıldız[2], Beytullah Yıldırım[2], İbrahim Gören[2], Burçin Şeyda Çorba[3], Ahmet Bektaş[2]**

*[1]Department of Internal Medicine, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[2]Department of Gastroenterology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[3]Department of Statistics, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*

***Background/Aims:*** Detection of granuloma formation in liver biopsy is a clue to the underlying disease and requires extensive evaluation and treatment of the patient for systemic diseases that may cause granuloma. In this study, we aimed to retrospectively investigate the cases with granuloma formation in the liver specimens in our center over a 13-year period.

***Materials and Methods:*** Liver biopsy which were applied to patients over 18 years of age between 2005-2018 in Ondokuz Mayıs University Hospital were reviewed retrospectively. Liver biopsies reports were investigated by examining the electronic database. Thirty-six patients with granuloma formation of the liver parenchyma were included in the study.

***Results:*** A total of 36 patients were included in the study. Sixteen patients (44%) were male and 20 patients (56%) were female. The age range of the patients was 21-85 years. The mean age of the patients was 49,7 years, 48,8 years for men and 50,4 years for women. Indications for biopsy were as follows; 21 (58%) patients to investigate the etiology of liver enzyme elevation, 12 (33%) patients to increase the etiology of liver mass or nodule, 2 (5%) patients to investigate the etiology of hepatosplenomegaly in the liver, 1 (2%) patient for the etiology of liver cyst.When the etiologies that may cause granuloma in the liver are examined; Sarcoidosis in 8 patients (22.2%), chronic viral hepatitis in 7 patients (19.4%), primary biliary cholangitis in 5 patients (13.8%), etiology unknown in 5 patients (13.8%), tuberculosis in 2 patients (8.3%) 5.5%), autoimmune hepatitis in 3 patients (8.3%), hydatid cyst in 2 patients (5.5%), chronic myeloproliferative disease in 2 patients (5.5%), acute brucellosis in one patient (2.7%), toxocara canis in one patient (2.7%) (Table 1). The most common cause in men was chronic viral hepatitis in 5 patients (31%) and the second most common cause was sarcoidosis in 4 patients (25%). The most common cause was primary biliary cirrhosis in 4 patients (20%), sarcoidosis in 4 patients (20%) and autoimmune hepatitis in 3 patients (15%).

***Conclusion:*** Dıseases that can cause hepatıc granuloma reported in the literature are sarcoidosis, drug effect, tuberculosis, neoplastic diseases, primary biliary cirrhosis and systemic infections. When the etiology of our patients was examined, it was found to be consistent with the literature data. When the mean age of the patient population was taken into consideration, it was seen that the middle age group was the majority. Autoimmune disease was more common in female patients. Cases with granuloma in liver biopsy results are presented to literature as single center data.

***Keywords:*** Liver, granuloma

***Table 1.*** Underlying diseases that may cause hepatic granuloma

| Etiology | Number (n) | Percentage (%) |
|---|---|---|
| Sarcoidosis | 8 | 22.2 |
| Chronic viral hepatitis | 7 | 19.4 |
| Primary biliary cirrhosis | 5 | 13.8 |
| Etiology unknown | 5 | 13.8 |
| Autoimmune hepatitis | 3 | 8.3 |
| Tuberculosis | 2 | 5.5 |
| Hydatid cyst | 2 | 5.5 |
| Chronic myeloproliferative disease | 2 | 5.5 |
| Acute brucellosis | 1 | 2.7 |
| Toxocara canis | 1 | 2.7 |
| Total | 36 | 100 |

***PP-967***

## *Behçet's Disease with atypical intestinal presentation*

**Mustafa Ergin**

*Department of Gastroenterology, Gazi University School of Medicine, Ankara, Turkey*

We present a case of atypical intestinal presentation of enterobehçet presenting with bloody diarrhea and diagnosed as Behçet's Disease(BD). 24-year-old male patient complained of bloody and mucous defecation, which started 4 months ago, and had periumbilical abdominal pain. In laboratory tests hb:6.2 g/dL, wbc:14400, ESR:46 mm/h, CRP:102 mg/L. No stool and bacterial growth was detected in stool examination and there were dense erythrocytes and leukocytes. In colonoscopy the mucosa was edematous, hyperemic and granular and the submucosal vascular network had disappeared. Millimetric superficial ulcers with white exudate were observed, the mucosa was fragile by touch. Because of the development of oral aphthae and erythema nodosum in the follow-up, the patient was considered in favor of Behçet's disease. The patient was treated with prednisolone and azathioprine for BD and his complaints regressed and discharged. Patients with Behçet's intestinal involvement may be mistaken for inflammatory bowel disease and other pathologies under conditions of initial or dominant symptoms. In our case, BD had atypical intestinal involvement, all colon segments were affected less frequently in the literature, ileum was preserved, and the patient presented with multiple ulcers. BD should also be considered in patients with inflammatory bowel disease or infectious colitis-like diagnosis.

***Keywords:*** Behçet's disease, colonic involvement

---

***PP-968***

## *Determination of subclinical pancreatic exocrine insufficiency by fecal elastase in IBD patients during remission*

**Pervane Ahmedova[1], Öykü Tayfur Yürekli[2], Ahmet Rıfat Balık[3], Naciye Şemnur Büyükaşık[2], Osman Ersoy[2]**

*[1]Department of Internal Medicine, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*
*[2]Department of Gastroenterology, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*
*[3]Department of Biochemistry, Yıldırım Beyazıt University School of Medicine, Ankara, Turkey*

***Background/Aims:*** Inflammatory bowel disease (IBD) patients frequently complain about bloating and gas even after control of intestinal inflammation. This may result unnecessary repeat colonoscopic examinations or even unnecessary IBD treatment escalations. Subclinical exocrine pancreatic insufficiency(EPI) may be an underlying factor for these symptoms. In fact EPI has been proposed as an etiologic factor for multiple diseases like diabetes or nonulcer dyspepsia.

***Materials and Methods:*** 58 adult IBD patients in clinical and endoscopic remission for the last 6 months but still having complaints of bloating and abdominal pain had been included in this study. 30 healthy adults with normal colonoscopy findings done for screening or search for the etiology of positive fecal occult blood test were included as the control group. Control group patients had no history of alcohol use, cancer or IBD. Fecal elastase levels were measured by Bioserv Diagnostics Fecal Pancreatic Elastase ELİSA test. Fecal elastase levels between 201-500 µg/g were accepted as normal, between 100-200 µg/g mild-moderate EPI,-,< 99 µg/g as severe EPI.

***Results:*** There were no significant differences in terms of age and gender between patients and the controls (table 1) There were no significant differences in terms of fecal elastase between IBD patients and the control group(Table-2). There were no significant differences either between ulcerative colitis and Crohn's Disease patients. Only hemoglobin levels were significantly lower in the control group.

***Conclusion:*** Our results failed to show that fecal elastase may be used to detect subclinical EPI in patients with IBD. This may be due strict inclusion criteria of our IBD patients. Larger scale studies are needed.

***Table 1.*** Main demographic variables of the study group.

| | Ulcerative Colitis n:40 | Crohn's Disease n:18 | Control n:30 | p |
|---|---|---|---|---|
| Age | 45.69±9.4 | | 51.33±11.01 | 0,41 |
| Gender | | | | |
| Female | 13 (32,5%) | 6 (33,3%) | 12 (40%) | |
| Male | 27 (67,5%) | 12 (66,7%) | 18 (60%) | 0,5 |
| Disease localization | Left sided 20 (50%) | Ileocolonic 4 (22,2%) | | |
| | Extensive 12 (30%) | Colonic 7 (38,9%) | | |
| | Rektitis 8 (20%) | Ileal 7 (38,9%) | | |
| Disease duration (years) | 4,3±3.4 | 5,02±5,7 | | 0,7 |

***Table 2.*** Main laboratory results of IBD patients and the control group

| | IBD (Mean±SD) | Control(Mean±SD) | p |
|---|---|---|---|
| Fecal elastase (µg/g) | 401±179,4 | 387,9±194 | 0,552 |
| HGB (gr/dL) | 14,3±1,6 | 13,2±2,7 | 0,03 |
| MVP (Fl) | 10,6±0,9 | 10,2±1,6 | 0,01 |
| Erythrocyte Sedimentation Rate (mm/saat) | 12,1±8,2 | 14,2±7,7 | 0,78 |
| CRP (mg/L) | 3,5±3,4 | 3,5±2,2 | 0,94 |

***PP-969***

## *Effectivity of anti-HCV antibody testing in hepatitis C virus screening*

**Rabia Deniz[1], Seda Karslı[1], Ömer Burak Ekinci[1], İlkane Kalantarova[1], Alp Atasoy[2], Mustafa Önel[3], Ali Ağaçfidan[3], Filiz Akyüz[2], Kadir Demir[2], Fatih Beşışık[2], Sabahattin Kaymakoğlu[2]**

*[1]Department of Internal Medicine, İstanbul University- İstanbul School of Medicine, İstanbul, Turkey*
*[2]Department of Gastroenterology, İstanbul University- İstanbul School of Medicine, İstanbul, Turkey*
*[3]Department of Medical Microbiology, İstanbul University- İstanbul School of Medicine, İstanbul, Turkey*

***Background/Aims:*** The treatment availability with direct-acting antiviral agents (DAAs) for chronic hepatitis C (HCV), makes it a curable disease, when an affected patient detected and treated on time. We aimed to identify the effectivity of HCV screening in hospital care and rate of treatment administration.

***Materials and Methods:*** In this cross-sectional study, all patients screened for HCV between January 2014 and June 2017 were included. After detecting from medical records, we used telephone-based interview with patients own.

***Results:*** Totally 77.783 patients were screened for HCV, and anti-HCV were positive in 1373. 943 (1.21%) patients remained after remocal of duplicated requests (n=430, 31.3%). Of the 943 patients, 455 could not be reached for various reasons. 488 patients (F/M: 266/222; mean of age 52.81±16.5 years) was interviewed. HCV transmission route was declared as unknown (37%), blood transfusion (23%), surgery (12%), dental care (9%), haemodialysis (14%), tattoo-piercing (1%), risky behaviour (1%), intravenous drug abuse (1%), liver disease in family (1%). Sixty-nine (14.1%) anti-HCV positive patients did not admit to hospital for HCVRNA test. HCV RNA was positive in 309(74%) of the 419 patients. Of HCVRNA positive patients, 268 had treatment (86%) while 41 not (14%). Distribution of treatment regimens were interferon-based (46%), DAA (27.4%), multiple therapy (26.2%). 71% (29/41) of untreated patients despite HCV RNA positivity, were actually proper to receive treatment. Thus, 14% of anti-HCV positive patients and 13% of HCVRNA positive patients could not reach treatment (23% of infected patients). The reason of requesting anti-HCV among all were general screening (32%), pre-operative screening (27%), elevated liver enzymes (21%), hemodialysis (7%), unknown (5%), blood donation (3%), self-interest (2%). On HCV RNA untested group, the main reason for anti-HCV testing was preoperative screening (42%).

***Conclusion:*** Requesting anti-HCV test for HCV screening is not enough for the successful HCV elimination. In DAAs era, approximately a quarter of patients could not successfully progressed from detection to treatment of HCV infection. Giving information to patients about anti-HCV test results, and if positive referring to HCV-RNA test is important. Electronic patient record systems may prevent unnecessary duplicated test requests. Administration of treatment should be encouraged in HCV-RNA positive patients unless there is an absolute contraindication.

---

***PP-970***

## *Long term follow-up of autoimmune hepatitis: A tertiary center experience*

**Selin Çakmak Demir[1], Ezgi Pınar Özbalak[1], Alp Atasoy[2], Mine Güllüoğlu[3], Filiz Akyüz[2], Kadir Demir[2], Fatih Beşışık[2], Sabahattin Kaymakoğlu[2]**

*[1]Department of Internal Medicine, İstanbul University- İstanbul School of Medicine, İstanbul, Turkey*
*[2]Department of Gastroenterology, İstanbul University- İstanbul School of Medicine, İstanbul, Turkey*
*[3]Department of Pathology, İstanbul University- İstanbul School of Medicine, İstanbul, Turkey*

***Background/Aims:*** The aim of this study was to evaluate the response, complications and survival rates of patients with autoimmune hepatitis (AIH) who were followed for a long time under immunosuppressive treatment.

***Materials and Methods:*** The study included 95 patients treated with *standard immunosuppressive regimen (*prednisolone ± azathioprine) for at least 12 months who were diagnosed with definite or probable AIH according to the International Autoimmune Hepatitis Scoring System. Patients with overlap syndrome and other causes of liver disease were excluded. Complete remission was defined as normal aminotransferase and gamma globulin levels.

***Results:*** The mean follow-up period of patients (67% type 1, 4% type 2, 29% autoantibody-negative AIH) was 82 months (range; 12-296 months). Patients with acute presentation were very often (72% acute hepatitis, 5% fulminant hepatitis). At the time of diagnosis, 56% of patients were in noncirrhotic stage, 23% compensated cirrhosis, and 21% decompensated cirrhosis. Concomitant autoimmune disorders were recognised in 20% of patients. Complete remission was achieved in 72% patients and partial remission in 8% patients with standard therapy at $6^{th}$ month. In total of 94% patients achieved remission with standard therapy during follow-up period. 40% of initially decompensated patients became compensated. Spontaneous relapses were seen in 56% of patients under the maintenance treatment (corticosteroid ± azathioprine), mostly occurred in patients with cirrhosis at the onset ($p<0.05$). In 6% of patients with complete remission, treatment was stopped after median 86 months. Reactivation occurred 12 months after cessation of treatment in one of these patients, the others remained in remission. Second line therapy (tacrolimus, mycophenolate) was used in 6 (6%) patients, in 5 of them remission was achieved in 3 months. In 22% of all patients, liver disease progressed at the end of follow-up period. Hepatocellular carcinoma was not seen. One patient had liver transplantation. Various drug-related side effects were seen in 12% of patients. Diffuse large B cell lymphoma developed in 1 patient.

***Conclusion:*** Acute hepatitis attack is the most common presentation form of AIH. Complete remission is achieved in the vast majority of patients with standard regimen, but spontaneous relapses are common during maintenance period. Drug-related side effects are rare even in patients using azathioprine for more than 10 years, and patient survival is very good.

***Keywords:*** Autoimmune hepatitis, immunosuppressive treatment, tacrolimus

***PP-971***

## *Seroprevalance of hepatitis e in 900 healthy blood donors in Mersin, Turkey*

**Serkan Yaras[1], Seda Tezcan Ülger[2], Eyüp Naci Tiftik[3], Gönül Aslan[2], Orhan Sezgin[1]**

*[1]Department of Gastroenterology, Mersin Univesity School of Medicine, Mersin, Turkey*
*[2]Department of Microbiology, Mersin Univesity School of Medicine, Mersin, Turkey*
*[3]Department of Hematology, Mersin Univesity School of Medicine, Mersin, Turkey*

***Background/Aims:*** Hepatitis E virus (HEV) is a non-enveloped, single-stranded RNA virus that causes acute hepatitis. Drinking water contaminated with feces is an important source of contamination. The frequency of HEV infection varies greatly depending on the geographical region, socioeconomic status, age and different risk factors. HEV prevalence in the adult population in Turkey is an average of 10% in various studies. In a previous pilot study, we found the incidence to be 3.3% in a small healthy blood donor group. However, this frequency was well below our expectations and we suggested that it should be investigated in large groups. In this study, we investigated the incidence of HEV antibodies in a large group of healthy blood donors admitted to the blood center of our hospital.

***Materials and Methods:*** The study included 900 volunteers who applied to Mersin University Medical Faculty Hospital Blood Center for 4 years between 04.10.2011 and 09.06.2017 and accepted to participate in the study. Following the written consent of each volunteer, 5 mL blood sample was taken for the study. After centrifugation, these samples were stored in the Laboratory of Clinical Microbiology at-80 ° C. After completing the samples, IgG Anti HEV was studied by ELISA method.

***Results:*** The mean age of the 900 volunteers included in the study was 35.22±9.60 years. The male/female ratio was determined as 889/11. Anti HEV IgG positivity was detected in 116/900 (11%) of serum samples. The mean age of the volunteers with seropositivity was 40.40±9.72 years, of which 2/116 were female and 114/116 were male.

***Conclusion:*** Seropositivity rate of HEV IgG in healthy blood donors was found to be 11%. This result was similar to the previously reported rates in our country.

---

***PP-972***

## *Colorectal cancer screening awareness among turkish gastroenterologists, surgeons, and internists. Do they recommend screening to their patients and do they attend screening themselves?*

**Süleyman Yıldırım, Selma Bozcan, İlkay Gültürk, Tuğçe Eşkazan, Oğuz Kağan Bakkaloğlu, Enes Ali Kurt, Murat Tuncer, Aykut Ferhat Celik, İbrahim Hatemi**

***Background/Aims:*** Although there are many community based studies about the awareness of colorectal cancer screening (CCS), data about the awareness of CCS program among specialists is scant. The aim of this study is to determine the rate of CCS recommendation among specialists and to note if they act similarly for themselves.

***Materials and Methods:*** We did a survey by phone to gastroenterologists, internists and general surgeons who are over 40 years old. This survey consists of 13 questions, regarding colorectal cancer screening including a question whether they advise the same screening for themselves. We excluded doctors who are younger than 40 years old and who did not give their consent.

***Results:*** We called 250 physicians, of which 239 (190 male, 49 female, mean age 53.8 ± 8.8) answered the questionnaire. A total of 116 gastroenterologists, 65 general surgeons, and 58 internists were included. The rate of CCS recommendation was 75.7% (181/239) in the whole group. The rate of CCS recommendation among gastroenterologists and the rest of the group was 86.2% (100/116) and 65.8% (81/123), respectively (p=0.0002). The rate of participation to the screening program was

44.8% (52/116) and 30% (37/123) among gastroenterologist and others respectively (p=0.018). This rate was not significantly different among male and female specialists (76/190-40% vs 13/49-26.5%, p=0.08). The rate of CCS recommendation rate among female specialists (77%) was not significantly different than males (75%) either. The rate of CCS suggestion among the doctors who have a first degree relative with colorectal cancer (N: 25) was not significantly higher than the rest of the group (72% vs 76% p=0.64), however the rate of participation to the screening program was significantly higher (72% vs 34%) (p=0.0002).

***Conclusion:*** The rate of CCS screening recommendation and participation to CCS among specialists was about 75% and 37% respectively. The rates of both CCS recommendation and participation to CCS among the gastroenterologists were significantly higher. We conclude that specialists do not fully believe in the CCS; as their rate of CCS recommendation for themselves is about half of the rate of CCS recommendation for their patients.

| | n | Mean Age | Secreening Suggestion Rate | Self Screening | p |
|---|---|---|---|---|---|
| Gastroenterologists | 116 | 55.4±9.4 | 86.2% | 44.8% | 0.0002 |
| Internist & Surgeons | 123 | 53.2±8.2 | 65.8% | 30% | 0.018 |

***PP-973***

## *EUS guided fine needle aspiration from peritoneal carcinomatosis*

**Serkan Doğan, Şeyda Seferoğlu**

*Kayseri City Hospital, Kayseri, Turkey*

***Background/Aims:*** The peritoneum is involved in many diseases. Primer diseases are like mesothelioma and infectious disease like tuberculosis. Sekonder diseases are such as disseminated malignency as a peritoneal carcinomatosis. Peritoneal carcinomatosis can be analyzing multiple imaging modalities including CT scan. There have been few cases of endoscopic ultrasound (EUS) being used as a means for diagnosis of this condition. Endoscopic ultrasound guided fine needle aspiration is safer than laporoscopic biopsy. Patient has no surgery but has the biopsy. We describe 85 year old female presenting with abdominal distension with weight loss over one year.Her radyologically tests are showed her peritoneal implants.The biopsy was taken with EUS-FNA which revealed that ovarian serous carsinoma lead to implants. A 85 year old female with no significant medical history. The patient presented a stomachache to our clinic. A palpabl mass was identified on her abdomen on the physical examination. Laboratory examination showed low serum acites albumin gradients with low polymorphonuclear leukocyte.Her abdomen ultrasound and contrast enhanced computed tomography of the abdomen revealed acites and omentum deposits(peritonitis carsinomatosa?) Her endoscopy and colonoscopy showed no sign of malignancy. Her thorax ct showed the plevral effusion and she had depressing of respritory system.Tube draniage was done by thoracic surgeon.The pleural liquid sent cytologically analysis. Her pleural liquid cytologically was reported class 3.

***Materials and Methods:*** Finally endoscopic ultrasonography was performed from stomach with the aim of fine needle aspiration of omental deposits. The procedure of EUS-FNA from the peritoneal nodules involves EUS using(curvi) linear echoendoscope from the gastric or duodenal station.The acites was visualized as an anechoic area close to the stomach.The nodules was sampled with 22 G EUS –FNA needle.The omentum was thick.The peritoneal biopsy was taken fine needle aspiration from hiperintense area.

***Results:*** Pathology of the aspiration showed ovarian serous carsinoma lead to implants.

***Conclusion:*** EUS-guided fine needle aspiration have become important tools in evaluation of patients who have various gastrointestinal and nongastrointestinal disorders. With over 10 years of worldwide published clinical data, the collective experience suggests that EUS is a safe tool. There are various measures that may be undertaken to help minimize the risks.

***PP-974***

## *Association of SOCS-1 1478 CA/DEL gene polymorphisms with outcomes of HBV infection in Turkish population*

**İbrahim Hayek[1], Macit Gülten[2], Barbaros Oral[3], Talat Ayyıldız[4]**

[1]Department of Internal Medicine, Uludağ University School of Medicine, Bursa, Turkey
[2]Department of Gastroenterology, Uludağ University School of Medicine, Bursa, Turkey
[3]Department of Immunology, Uludağ University School of Medicine, Bursa, Turkey
[4]Department of Gastroenterology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey

***Background/Aims:*** Hepatitis B virus (HBV) infection affects more than 360 million people all around the world. Some individuals can develop acute HBV infection and achieve complete immune clearance of virus, yielding a life-long immunity, while others can develop chronic HBV infection or asymptomatic carrier. The outcomes of hepatits B infection is more related to the host immoderate immune response than viral factors. Suppressor of cytokine signaling-1 (SOCS-1) is one of the most important protein that regulates the immun system by preventing it from the overreactivity. Any mutation or polymorphism that changes the SOCS-1 function, may be harmfull to the liver because of exaggerate immune respone. The aim of our study is to investigate whether there is a relationship between the outcome of hepatitis B and SOCS-1 gene polymorphism.

***Materials and Methods:*** 35 chronic hepatitis B patients, 36 asymptomatic carriers and 45 spontaneously recovered from HBV infection subjects as a control group were enrolled in this study. All the subjects were analyzed for SOCS-1 1478 CA/DEL polymorphism by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP).

***Results:*** The overall frequencies in chronic hepatitis B were 14 (%40) CA/CA, 21 (%60) CA/DEL and 0 DEL/DEL genotyps. The frequencies for asymptomatic carriers were 18 (%50) CA/CA, 18 (%50) CA/DEL and 0 DEL/DEL genotyps. The frequencies in spontaneously recovered from HBV infection subjects were 24 (%53.3) CA/CA,19 (%42.2) CA/DEL and 2 (%4.5) DEL/DEL genotyps. These differences between three groups were not statistically significant.

***Conclusion:*** In conclusion in Turkish population, there were no differencies in frequencies of SOCS-1 1478 CA/DEL polymorphism and the outcomes of hepatitis B. In order to achieve exact results studies with larger populations are required for SOCS-1 polymorphisms.

***Keywords:*** Chronic hepatitis B, SOCS-1 CA/DEL 1478, gene polymorphism

---

***PP-975***

## *The effects of drugs and other factors on the nonvariceal upper gastrointestinal bleeding*

**Zeynep Evdirir Tüzün[1], Talat Ayyıldız[2], Beytullah Yıldırım[2], İbrahim Gören[2], Ahmet Bektaş[2]**

*[1]Department of Internal Medicine, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*
*[2]Department of Gastroenterology, Ondokuz Mayıs University School of Medicine, Samsun, Turkey*

***Background/Aims:*** Non variceal upper gastrointestinal bleeding is a common medical condititon with high mortality and morbidity rates as well as high medical care costs. In this study, it was aimed to compare the effects of increasing antiaggregants, anticoagulants and increasing use of nonsteroidal antiinflammatory drugs (NSAIDs) on the upper gastrointestinal system in recent years with the increase of cardiovascular and cerebrovascular diseases and to obtain up-to-date data related to our region and country.

***Materials and Methods:*** The study was retrospectively performed between January 2015 and June 2017 at the Ondokuz Mayıs University Medical Faculty. The clinical features of drugs in the risk group leading to bleeding and non-drug causes were included in the study.

***Results:*** 140 patients were included in the study, 91 (65%) were male and the mean age of all patients was 63.7 ± 17. Melena (53.6%) was the most common complaint in patients. When comorbid features of the patients were examined, 45 (32.1%) patients had diabetes mellitus, 36 (25.7%) patients had malignancy and 32 (22.9%) patients had ASHD (atherosclerotic heart diseases). The incidence of ASHD, heart failure, and diabetes mellitus was higher in patients using drugs that could cause bleeding (in order of p: <0,001, 0,003, 0,041). At the time of admission, 79 (56%) patients were enrolled in our study using drugs that could cause bleeding. Of the patients, 36 (22.1%) received aspirin, 19 (13.6%) NSAIDs, 7 (5%) corticosteroid, 8 (5.7%) warfarin, 14 (10%) platelet inhibitors, 4 (2.9%) direct oral anticoagulants (apixaban, dabigatran, rivaroxaban, etc.). The mean hemoglobin level of all patients was 9,5 ± 2,7 gr/dL; the mean hematocrit percentage was 29.5 ± 8.3; the INR level averaged 1.3 ± 0.9. Peptic ulcer was detected as the most frequent bleeding in our study. The mortality rate in our study was calculated as 7.8%. The incidence of malignancy, low moleculer weight heparin use, and rebleeding rate were significantly higher in patients who died within the first 30 days of non-variceal upper GI bleeding (in order of, p:0,024, 0,004, 0, <0,001)

***Conclusion:*** This study showed that increasing age-average and the use of medications that could cause bleeding could increase bleeding rates. This suggests that our study correlates with the presence of atherosclerotic heart disease and malignancy, which is associated with increased age and comorbid conditions at high age.

***Keywords:*** Antiaggregants, anticoagulants, comorbid diseases, nonvariceal upper gastrointestinal bleedings

# VIDEO PRESENTATIONS

***VP-01***

## *Direct image-guided retroperitoneal approach and treatment to the pancreas using notes and endoscopic ultrasound (EUS)*

**Sosa-Valencia Leonardo, Swasntröm Lee, Averous Gerlinde**

*Institute of Image Guided Surgery-IHU, Strasbourg, France*

***Background/Aims:*** The pancreas is difficult to access surgically. EUS can access it with needle based accessories. EUS large biopsies, lesion resection and distal pancreatectomy could provide clinical advantages. We propose a hybrid intervention combining a NOTES approach and EUS pre-treatment with intraoperative guidance from a trans-gastric approach.

***Materials and Methods:*** In 4 adult pigs (3 acute and 1 survival), after general anaesthesia, contrast CT scan and pancreatic EUS with Doppler/Elastography was performed. First Procedure, (time= 62''): 1) body-tail localization,2) introduction of a fiducial marker, 3) miniembolization of intra pancreatic vessels around the fiducial using HEA, 4) right and the left radiofrequency (RF) ablation. 5) placement of 2 clips on the gastric mucosa overlying the lesion. All pigs were survived for 4 days with antibiotics, AINES, enteral liquids nutrition and analgesics. Second procedure, (mean time=94'') under general anaesthesia and CO2 insufflation. EUS identified the targeted area and an India ink tattoo was placed. Using an upper endoscope fitted with a cap, and starting 2 cm proximal to the E-G junction a 3 cm long submucosal tunnel was made before exiting the scope through the gastric muscularis and into the retroperitoneal space. Using spray coagulation, a 6 cm tunnel to the pancreas was made. Once at the pancreas, progressive dissection of the pancreatic tail was made to identify the target lesion. Pancreatic biopsies using a jumbo biopsy forceps and small pancreatic resection with a 2.5x5.5 cm polypectomy snare were performed. The oesophagus was closed with endoscopic clips. Three animals were sacrificed and their pancreas harvested for pathologic examination. One pig was followed for 4 days (same treatment). Return to OR for contras CT and MRI with euthanasia and distal pancreatectomy afterwards.

***Results:*** No pancreatitis or pain during the survival. All cases of EUS embolization-ablation were satisfactory, endoscopic retroperitoneal tunnelling/targeting was satisfactory in one case. Ablated areas varied from 5-7 cm, 1 had a 2 cc clear liquid cyst. Normal surrounding parenchyma and pancreatic ducts in the head, and right pancreas body were found.

***Conclusion:*** EUS assisted Endoscopic direct retro-gastric access to the pancreas is possible. EUS pancreatic ablation and endoscopic pancreatic partial resection in combination are possible.

***Keywords:*** Endoscopic ultrasound, radiofrecuency ablation, pancreas

---

***VP-02***

## *New surgical technique applied in multiple giant hepatolithiasis patients: Ultra-mini percutaneous hepatolithotomy First 6 cases*

**Mehmet Giray Sönmez[1], Faruk Aksoy[2], Süleyman Bakdik[3], Gökhan Ecer[1], Ahmet Atıcı[1], Ahmet Öztürk[1]**

*[1]Department of Urology, Necmettin Erbakan University Meram School of Medicine, Konya, Turkey*
*[2]Department of General Surgery, Necmettin Erbakan University Meram School of Medicine, Konya, Turkey*
*[3]Department of Radiology, Necmettin Erbakan University Meram School of Medicine, Konya, Turkey*

***Introduction:*** The aim of the treatment is to clear the stones and restore bile drainage. In the past, liver resection was the first treatment option for these stones. Because of the high morbidity and mortality rates in open surgical management, new ways to eliminate intrahepatic stones have begun to be searched. Therefore, less invasive percutaneous transhepatic cholangioscopy (PTK)andERCP has been used in the treatment of these stones. However, since the anatomy of the biliary tract

is different and does not significantly reduce the intrahepatic stone burden, these therapies are not sufficient. Especially in patients with hepatolithiasis with large stone load.These treatments are used for liverstones less than 1 cm. Despite the fact that percutaneous different treatments were applied to patients with hepatolitiasis in the literature, Ultra-Mini Percutaneous Hepatolithotomy (UM-PHL) was not applied to any patient before. UM-PHL was used for the first time in this case series and was given this name due to the small size of the instruments used. We present the Ultra-Mini Percutaneous Hepatolithotomy (UM-PHL) experience we had through minimal dilatation with minimal invasive tools in six patients who had multiple surgery many times due to gall ducts Stones

***Case:*** First patient: Twenty three yearsold female patient had portoenterostomy and cholecystectomy operation whenshe wastwo monthsold due to choledoch cyst, There were stones in the intrahepatic bile ducts of the patient who had recurrent cholangeitis and pancreatitis attacks ,Open choledoch cyst resection and wirsung jejunostomy operations were made a year ago due to the continuing complaints of the patient, Previous treatments failed due to high stone load. Second patient: Thirty nine years old male patient He has ERCP and MRCP procedure because of distal choledoc stone(21mm) ten years ago. He has also cholecystectomy and choledochoduodenostomy operations after ERCP/MRCP. He applied hospital with stomacache and jaundice. He was made percutanous transhepatic cholangiography and ERCP. Third Patient: A seventy seven years old male patient , He has cholesistectomy story because of cholelithiasis four years ago. In last three years, many times ERCP and percutaneous drainage catheter procedure made. A year ago he has been operated Roux-en-Y choledochojejunostomy. Fourth Patient: 38 years old Male. The patient was diagnosed with Caroli Disease when he was 17 years old and had complaints of intrahepatic biliary tract dilatation when he presented with fever and right upper quadrant pain. He had recurrent cholangitis attacks in her follow-ups. Fifth Patient: 30 years old female. She has cholecystectomy and hepaticojejunostomy operation six years ago. Sixth Patient: 80 years old male. He had cholecystectomy four years ago.There was a history of ERCP that failed 3 times. Surgical Tecnique: Details of the surgical technique are described in the video. All of the stones in the three patient' s intrahepatic bile ducts were removed (stone-free). The patients didnt have any problems in the postoperative follow-ups. The third or fourth day after the procedure, the drains were taken and the patient was discharged on the third or fourth day.

***Conclusion:*** In hepatolithiasis patients with high stone load, it is a safe and successful method to clean the stones by providing minimal dilatation through percutaneous intervention regardless of the surgical story in bile ducts and using instruments with a small diameter and pneumatic lithotriptor. We think that UM-PHL procedure done by surgeons who have years of experience in percutaneous nephrolithotomy field and are skilled in percutaneous surgery would decrease stone-free state and morbidity ratios and increase surgical success.

***Keywords:*** Hepatolithiasis, percutaneous hepatolithotomy, minimal invasive surgery, stone load

---

***VP-03***

## *Intrahepatic cholangiocarcinoma: Percutaneous hepatocholangioscopic biopsy*

**Mehmet Giray Sönmez[1], Süleyman Bakdık[2], Tevfik Küçükkartallar[3], Ahmet Atıcı[1], Gökhan Ecer[1], Ahmet Öztürk[1]**

*[1]Department of Urology, Necmettin Erbakan University Meram School of Medicine, Konya, Turkey*
*[2]Department of Radiology, Necmettin Erbakan University Meram School of Medicine, Konya, Turkey*
*[3]Department of General Surgery, Necmettin Erbakan University Meram School of Medicine, Konya, Turkey*

***Introduction:*** Cholangiocarcinoma(CCA) is the second most common primary liver tumor type and accounts for around 3% of all gastrointestinal cancers. CCAs are over 90% adenocarcinoma. They may develop in intrahepatic and extrahepatic bile ducts. Percutaneous fine needle aspiration biopsy, brushcytology, curettage and cytological examination methods can be used to determine tissue diagnosis. ERCP can be used to provide tissue samples with different methods, including brush cytology, fine-needle aspiration, and transpapillary biopsy. These methods have a low sensitivity of 46%-73%. Combination of brush citology and Ultrasound guided needle biopsy provide: 70% sensitivity. Despite the fact that 30% of all cytological examinations have negative results!

Endoscopic access to intrahepatic bile ductsand taking samples (an image-guided biopsy)in patients with CCA may result in and increase the accuracy and diagnosis. In this casereport, we present a patient who was diagnosed as intrahepatic CCA pathologically by Percutaneous Hepatocholangioscopic biopsy.

***Case:*** 49 y, male patient. He has applied severe diarrhea, nausea, loss of appetite and jaundice.No chronicalillness and no medication. Physical examination: icterus only- no significant sign. Abdominal USG scan revealed : ''dilatation of intrahepatic bile ducts"

· His liver biochemistry at presentation was:
· Total Bilirubin 17,23 Mg/Dl
· Direk Bilirubin 10,39mg/Dl
· I. Bilirubin 6,84 Mg/Dl
· ALP: 378 U/L
· GGT: 1491 U/L
· AST 176 U/L
· ALT 81 U/L
· Amilase 56 U/L
· Lipase 32 U/L
· Cancer antigen 19-9 (CA 19-9), 0,6U/ mL.
· His hepatitis B and C screening and autoimmune profile were negative.

Percutaneous Transhepatic Cholangiography: Preoperative PTC images give information about Biliar Drainage. No opaque material access to choledoc and left hepatic lobe. MRCP: Dilatation of the right and left main bile ducts, common bile ducts and wirsung are normal. There is no mass at main bile ducts. It was like the scirrhous type of stenosis.Findings onthisstudy suggestive of Klatskin tumor include a dilated intrahepatic biliary tree. Therefore, percutaneous biopsy could not be performed and biopsy was performed with cholangiography. Surgical Technique: Intrahepatic bile duct was entered percutaneously with 18 Gauge needle with the aid of ultrasonography (USG) by interventional radiologist with the patient in the supine position and under general anesthesia. Bile secretion was observed inside the injector cylinder, and bile ducts were monitorized with fluoroscopy after injection of opaque material . Then a 0.035 inch soft-edged hydrophilic guidewire was inserted and a 10 F vascular introducer sheath was advanced over the guidewire. The end of this sheath which is outside the skin was used as access sheath by cutting the end to allow entrance of instruments. Then intrahepatic bile duct was entered with 9.5F pediatric rigid cystoscope (Karl-Storz, Tuttlingen, Germany) by the urologist through the vascular sheath. Intrahepatic CCA was seen and biopsy was taken under direct examination with forceps. Percutaneous Hepatocholangioscopic Biopsy Pathology: Adenocarcinoma (Intrahepatıc Cholangiocarcinoma)

***Conclusion:*** Percutaneous ultramini hepatocholangioscopic biopsy technique, percutaneous enterance and minaturized ınstrument use the tumoral tissue from bile ducts and biopsies under direct vision can improve the accuracy of pathological diagnosis. We believe that is a useful and minimally invasive procedure for determinating of stricture or tumor. Also we can use this technique for patients who do not want surgery without any pathological diagnosis.

***Keywords:*** Adenocarcinoma, intrahepatıc cholangiocarcinoma, minimally invasive procedure, percutaneous hepatocholangioscopic biopsy

---

***VP-04***

## *Gi bleed due to erosion of gastroduodenal artery in a seven year old girl*

**Malay Sharma, Gaurav Ratnaparkhi, Sarthak Atri, Mahesh Patil, Nikhil Mahajan, Sunil Reddy, Astha Shukla, Mysore Nagaraja**

*Jaswant Rai Super Speciality Hospital, Uttar Pradesh, India*

A 7 year old female presented with history of RTA with poly trauma and head injury. On day 6, she was in shock and having persistent melena. She required 4 Units of blood transfusion for stabilization. She was treated with antibiotics, PPI and sup-

portive care. After stabilization OGD scopy was done, which showed a single large clean based duodenal ulcer with pulsating vessel at the base. Endoscopic ultrasound revealed gastro-duodenal artery at the base of an ulcer. Considering clinical and endoscopic findings, possibility of stress ulcer with eroding artery at the base was considered. OTSC clip was deployed at the ulcer base. Hemostasis achieved, patient improved thereafter and remained stable hemodynamically without any further need of blood transfusion. On day 7 after endoscopic intervention, repeat OGD showed clip in D1 without any fresh bleeding.

***Keywords:*** Stress ulcer, GI bleeding, endoscopic ultrasound

---

***VP-05***

## *Drainage of liver hydatid cyst by ERCP*

**Tuncer Temel, Erkin Öztaş, Selçuk Dişibeyaz**

*Department of Gastroenterology, Eskişehir Osmangazi University School of Medicine, Eskişehir, Turkey*

Forty five year old female patient, with the diagnosis of liver hydatid cyst has admitted to our department after ineffective percutanous drainage with complaints of fever and upper right quadrant pain with leukocytosis, hyperbilirubinemia and elongated liver enzymes. Hydatid cyst that has connection with intrahepatic bile ducts has been fully drained by ERCP.

https://youtu.be/-UCJTCSf7mg

***Keywords:*** Hydatid cyst, liver, ERCP

---

***VP-06***

## *Management of fistula between neo bladder & rectum by ASD closure device*

**Malay Sharma, Nikhil Mahajan, Mahesh Patil, Sunil Reddy, Gaurav Ratnaparkhi, Sarthak Atri**

*Jaswant Rai Super Speciality Hospital, Uttar Pradesh, India*

Enterovesical fistula (EVF) is an abnormal communication between the intestine and the bladder first described in modern literature by W.H. Cripps in 1888. Around 80% of fistulas are secondary to inflammatory causes (diverticulitis being the most common) and 20% are attributable to malignant causes. These are life threatening as patient is in perpetual state of urosepsis and because of underlying advanced disease, surgical interventions are risky. 58-year-old man with Ca Urinary bladder status post-surgery with construction of neobladder followed by chemo radiation, presented with pneumaturia and fecaluria. On examination, he had fever and hypotension. CECT abdomen showed fistula of 1.4 cm X 1.9 cm between neo-bladder and rectum. Colonoscopy confirmed the fistula. Fistula mapping was done by advancing the colonoscope into the bladder. Subsequently simultaneous Colonoscopy and Cystoscopy were done. Guidewire was advanced through the colonoscope into the fistulous opening and brought out via cystoscope out of urethra. Fistula was closed by Amplatzer double-disk nitinol wire mesh under direct colonoscopic and cystoscopic vision. Patient did well post procedure. But he succumbed 3 months post procedue due to advanced disease. There is no substantial literature for treatment of enterovesical fistula secondary to malignancy. Endoscopic therapies have been tried with mixed results. Of the modalities described in literature Self expandable metallic stents (SEMS), Sealants, stem cell transplantation have been used to close the fistula tract especially in small fistulous openings. We attempted closure of a malignant fistula with ASD device as it was a wide fistula not amenable to closure by other endoscopic modalities.

***Keywords:*** Enterovesical fistula (EVF), amplatzer double-disk nitinol wire mesh

***VP-07***

## *Esophageal perforation: a pitch for the stitch, no stent for the rent*

**Jennifer Higa[1], Shayan Irani[2]**

*[1]Fox Chase Cancer Center, Philadelphia, USA*
*[2]Virginia Mason Medical Center, Washington, USA*

There is an evolving role for therapeutic endoscopy in the repair of esophageal perforation. Esophageal perforations are highly morbid with a mortality rate of up to 46.5% in cases due to iatrogenic injury, and up to 50% for cases of Boerhaave's syndrome with delayed presentation. Clinical management of esophageal perforations typically includes: NPO status, antibiotics, and chest tube placement depending on degree of mediastinal contamination. Repair of esophageal perforation has historically been surgical, with operative primacy replaced by less invasive endoscopic interventions using clips (through the scope or over the scope design) and fully or partially covered metal stents. Given the paucity of available data on outcomes for endoscopic suturing of esophageal perforations we present the outcomes of five different cases to highlight learning points and pitfalls for each scenario. We have elected to apply endoscopic suturing techniques in patients with acute and chronic esophageal perforation, iatrogenic and spontaneous in etiology. Successful repair of these esophageal perforations allowed patients to avoid surgery and resume PO intake. Five cases of esophageal perforation were successfully treated with endoscopic suturing. The technical success rate was 100%. One case required supplemental stent placement however all cases were managed non-operatively and with a full recovery. No adverse events occurred. Endoscopic suturing is a feasible treatment alternative to traditional endoscopic interventions like stenting. Problems associated with covered esophageal stents include: stent migration, reflux, pain, leaks refractory to stenting, and tissue overgrowth requiring multiple procedures for removal. Furthermore, some cases of esophageal perforation prove refractory to traditional methods of closure using stents and clips. Insufficient treatment of esophageal perforations lead to increased patient morbidity and mortality, prolonged hospital length of stay and cost. Endoscopic suturing as primary therapy for esophageal perforation is a promising treatment modality and warrants further investigation in larger series.

***Keywords:*** Esophageal perforation, endoscopic suturing, chronic fistula

---

***VP-08***

## *Management of duodenal varices & portal biliopathy*

**Malay Sharma, Mahesh Patil, Gaurav Ratnaparkhi, Nikhil Mahajan, Sunil Reddy, Sarthak Atri**

*Jaswant Rai Super Speciality Hospital, Uttar Pradesh, India*

Bleeding during ERCP is a serious problem and can occur due to many reasons. We present a 22-year-old male, a known case of EHPVO presented with massive hematemesis and jaundice. Ultrasound showed dilated intra-hepatic bile duct. MRI and MRCP abdomen showed IHBRD. Endoscopy showed no esophageal varices, portal gastropathy and thickened duodenal fold. The thickened fold appeared suspicious of duodenal varices (DV) but no bleeding was demonstrated. Endoscopic ultrasound confirmed that the presence of DV. The DV was assumed to be the cause of bleed and EUS guided microcoil and 1 ml of cyanoacryalate glue was placed into the duodenal varix. He also had obstructive cholestatic jaundice secondary to Portal biliopathy (PB). During placement of a plastic stent in the bile duct massive bleeding started. Haemostasis was achieved by placing an expandable covered stent within the bile duct. The stent was removed after three weeks. After removal of the stent spy glass cholangioscopy showed bleeding from multiple cherry-red spots in the CBD wall. There were no intra-choledochal varices. Patient remained stable during follow-up for six months but required repeat ERCP and plastic stent placement for management of stricture related to PB. To conclude we can say that EUS is an important diagnostic & therapeutic intervention modality in cases of DV bleed. PB may be associated with massive bleed during therapeutic intervention. Expandable covered stent should be used to control intractable bleeding.

***Keywords:*** GI bleeding, endoscopic ultrasound, portal biliopathy

***VP-09***

## *Successful cap-assisted endoscopic resection of a large Brunner's gland hamartoma closed with an over-the-scope clip*

**Enrik John Aguila , Rachel Marie Cruz , Jonard Co**

*St. Luke's Medical Center- Global City, Philippines, USA*

Brunner's gland hamartoma is a rare benign tumor of the duodenum formed from a proliferation of Brunner's glands. It is usually an incidental finding but can also be an unusual cause of obstruction or bleeding, requiring endoscopic or surgical resection. This is a case of a 53-year-old male presenting with gastrointestinal bleeding with a noted large duodenal polyp on gastroscopy. The lesion was successfully resected via endoscopic mucosal resection (EMR) with the defect closed by an over-the-scope clip. This is a case of a 53-year-old male who presented with a five-day history of melena for which he underwent blood transfusions. Prior to the episodes of GI bleeding, he was maintained on an anticoagulant for deep vein thrombosis. He underwent gastroscopy which showed a pedunculated polypoid lesion around 3-4 cm at the duodenal bulb with an ulceration at its distal tip but no active bleeding. To further probe on the nature of the lesion, an endoscopic ultrasound was done which showed a 22 x 10mm hypoechoic lesion confined to the mucosa and submucosa. Patient eventually underwent cap-assisted EMR. Submucosal injection with saline and adrenaline was done at the base for hemostatic control and after adequate lift, EMR was performed using a 25mm snare. The resultant defect was closed using a 9mm over-the-scope (Ovesco) clip. Patient noted resolution of symptoms. Histopathology eventually revealed brunner's gland hamartoma with focal ulceration. A repeat gastroscopy 3 months after showed an intact post-resection site with the Ovesco clip still in place. This case report shows a successful resection of a rare Brunner's gland hamartoma via an advanced endoscopic and hemostatic technique. While surgery has been the usual treatment if patients are already symptomatic, it is important to take into consideration that endoscopic resection has nowadays been an acceptable and less invasive option with good clinical outcomes.

***Keywords:*** Brunners gland, hamartoma, over-the-scope clip, EMR

---

***VP-10***

## *EUS-guided choledochoduodenostomy and EUS-guided gastrojejunostomy in a patient with combined malignant biliary and gastric outlet obstruction*

**Gokul Bollu Janakan[1], Chandrasekar Thoguluva Seshadri[1], Raja Yogesh Kalamegam[1], Sathiamoorthy Suriyanarayanan[1], Sabarinathan Ramanathan[1], Prasad Menta Sanjeevaraya[1], Viveksandeep Thoguluva Chandrasekar [2]**

*[1]Medindia Hospitals, Chennai, India*
*[2]University of Kansas School of Medicine, Kansas City, USA*

Endoscopic palliation is preferred to surgery in patients with combined biliary and gastric outlet obstruction due to the poor prognosis and to avoid the morbidity associated with surgery. Here we report a case with combined biliary and gastric outlet obstruction successfully managed with Endoscopic ultrasonography (EUS) guided biliary drainage followed by a EUS-guided gastrojejunostomy to palliate obstructive jaundice and vomiting respectively. Forty-one-year-old male presented with epigastric pain, vomiting and significant loss of weight. On CT imaging a large (12 x 10 cm) heterogeneously enhancing mass lesion was noted involving the pancreatic head, 2$^{nd}$ and 3$^{rd}$ parts of the duodenum with distal bile duct obstruction and invasion of the superior mesenteric vein, portal vein and inferior vena cava. At endoscopy, an obstructing proliferative growth involving the first and second parts of the duodenum was noted biopsy from which revealed poorly differentiated adenocarcinoma. Blood investigations showed low haemoglobin (7.8 gm/dL), elevated bilirubin and alkaline phosphatase and CA 19-9 of 36.27 U/mL. Since there was a combined biliary and gastric outlet obstruction, a EUS-guided choledochoduodenostomy (CDS) and EUS-guided gastrojejunostomy (GJ) was planned (See video). An 8 cm partially covered biliary metallic stent was deployed through the duodenal bulb under EUS guidance, following which a nasobiliary drainage catheter was placed across the ob-

structing growth into the jejunum under combined endoscopic and fluoroscopic guidance. After distending the jejunum with methylene blue stained saline, direct puncture of the jejunum was done using electrocautery enabled lumen apposing metallic stent (LAMS) under EUS guidance and a GJ was created. A relook endoscopy revealed fully expanded metallic stents in the posterior wall of the stomach (EUS-GJ) and in the duodenum (EUS-CDS). Following these procedures his bilirubin started decreasing and he was able to tolerate soft diet without vomiting. He was doing well at one-month follow-up. EUS-CDS is a welcome alternative to percutaneous biliary drainage in cases of failed ERCP. Recurrent obstruction and the need for re-intervention is significantly less with EUS GJ compared to enteral stenting as the former is performed proximal to the stricture and the latter, through the stricture.

***Keywords:*** Combined biliary and gastric outlet obstruction, EUS-guided choledochoduodenostomy, EUS-guided gastrojejunostomy

## *Author Index*

**A**
A. Akbulut, S863
Aamir Saleem, S513, S633, S642
Aarthi Anand, S259
A Bashar, S174
Abate Shewaye, S813
A. Batırel, S861, S862, S863, S865
Abbas Gholami, S315
Abbas Mahdi, S794
Abbas Yadegar, S678
Abbas Yazdanbod, S693
Abdel-aziz Shaheen, S846, S847
Abdelmonem Abdo, S182
Abdel-naser Elzouki, S358
Abdelrahman Babekir, S783, S828
Abdelwaly Khaled, S394
Abdol Rahim Masjedizadeh, S203
Abdolreza Fazel, S698, S699
Abdul Badi Abou Samra, S358
Abdulfatai Olokoba, S724
Abdullah Bin Khalid Zuberi, S830
Abdullah Eyvaz, S424
Abdullah İçli, S837
Abdullahi Umar, S379
Abdullah Mubin Özercan, S604, S830
Abdullah Özçelik, S837
Abdullah Özgür Yeniova, S775
Abdullah Tanrıkulu, S193
Abdullah Tarık Aslan, S729, S756
Abdul Magid M Musaad Musaad, S716
Abdulsemed Mohammed, S408
Abdurrahman Aykut, S242
Abhijeet Karad, S601
Abhijit Dangi, S209
Abhinav Anand, S806
Abner Augusto Lobao-neto, S356, S357
Abolfazl Bazazan, S698, S699
Abolfazl Iranikhah, S262, S263, S264
Abouelhak Sara, S550
Acharki Mohamed, S505, S506, S530
Ada Florena, S385
Adam Baker, S295, S296, S297
Adam Levene, S385
Adea Kocollari, S245, S328, S355, S357, S501, S624
Adedayo Faneye, S735
Adeel Abid, S518, S730
Adeel Hamad, S205
Adegboyega Akere, S757
Adem Akcakaya, S158, S160
Adil Ibrahimi, S508, S512
Adil Najdi, S247
Adi Pangestu, S540
Adnene Laatiri, S198
Adriana Chalbaud, S399
Adriana Margarita María Rey Rubiano, S403, S503, S515, S516, S569
Adrian Hoti, S500
Adrian Saftoiu, S646, S831
Adrián Sánchez, S820
Afshin Moradi, S385
Afshin Shafaghi, S386, S388
Aftab Leghari, S671
A. Gündüz, S863
Ahamd Abdelsalem, S655
Ahmad A. Ali Abdelsalem, S655
Ahmad Abdul Rahman, S283
Ahmad Babar, S162, S481
Ahmad Fariz Malvi Zamzam Zein, S317
Ahmad Hormati, S262, S263, S264
Ahmad Kumo Bello, S379
Ahmad Nawaz, S462, S764
Ahmad Ramzi Yusoff, S724
Ahmed Adem Yesufe, S409
Ahmed Badi, S611
Ahmed Bellabah, S348, S378, S401, S402, S440, S507, S514, S515, S531, S585
Ahmed Benkirane, S159, S636, S638, S640, S644, S771, S837, S844, S853, S854, S855
Ahmed Ellakany, S204
Ahmed El-masry, S442, S446
Ahmed El-Mikkawy, S149, S589
Ahmed Enes Demirci, S875
Ahmed Hamed, S651, S858
Ahmed Sherief, S250
Ahmet Atıcı, S885, S886
Ahmet Bektaş, S377, S757, S834, S876, S882
Ahmet Bertan, S678
Ahmet Cumhur Dülger, S230, S232, S289, S661
Ahmet Gürkan Uzun, S167
Ahmet Karakarçayıldız, S238
Ahmet Karaman, S821
Ahmet Kargi, S368
Ahmet Koçak, S827
Ahmet Melih Şahin, S230
Ahmet Ömer Özütemiz, S167, S811
Ahmet Öztürk, S885, S886
Ahmet Rıfat Balık, S877
Ahmet Tarık Eminler, S781, S832
Ahmet Tuncay Yılmazlar, S854
Ahmet Uyanıkoğlu, S269, S678, S746, S874
Ahmet Uygun, S757
Ahmet Yozgat, S182
Aida Maria Rodriguez-hernandez, S307, S308
Aida Maria Rodriguez-Hernandz, S314
Aidana Abdigappar, S417
Aidana Kaliyakparova, S562
Aigul Raissova, S562
Aiman Galie, S278
Aiman Galieva, S278
Aiming Yang, S253, S812
Ainur Doszhan, S278
Airong Wu, S679
Aishani Sachdeva, S434
Ai-sheng Ho, S236
Aithal GP, S850
Ait Taleb Khalid, S609, S616, S647
Aiymkul Ashimkhanova, S417
Aizhan Kanabayeva, S561, S562
Ajana Fatima-zahra, S781
Ajana Fatima Zahra, S394, S480, S600, S781, S793, S796, S800, S801, S825, S827
Ajana Fatima-Zohra, S597, S794
Ajay Kumar, S537, S538
Ajeet Kumar Lohana, S745
Ajit Kumar, S558
Ajit Sood, S141
Ajmal Hasan, S587
Akane Shidou, S696
Akanksha S Mishra2, S794
Akari Isono, S215
Akash Shukla, S162
Akeel Alisa, S442, S449
Akimitsu Meno, S696
Akın Fırat Kocaay, S479
Akram Pourshams., S692
Alami Jaafar, S199
Ala Ouni, S613, S620, S646, S647
Alberto Morais, S287
Albina Lishchinskaya, S167, S345
Aleftina Akatova, S402
Alejandra Arriola, S214

Aleksandar Čubranić, S499
Aleksandar Georgieski, S186
Aleksandr Denisenko, S254
Aleksandr Khorovodov, S404
Aleksandr Kiosov, S254
Aleksey Oparin, S195, S196
Aleks Sulejmani, S355
Alena Ausianik, S330, S331
Alessio Fasano, S385
Alev Baklr, S525
Alexander A. Akor, S636
Alexander Borisov, S311
Alexander Nersesov, S561, S562
Alexander Vasyutin, S309, S310, S311, S312
Alexandra Fernandes, S728
Alexandra Gantzarou, S361
Alexandra Martins, S717, S718, S719, S723
Alexandra Medellin, S846, S847
Alexandra Sima, S838
Alexandre Chan, S354
Alexandru Popa, S715
Alfia Aminova, S402
Alfredo Saggioro, S804
Ali Ağaçfidan, S878
Aliakbar Hajiaghamohammadi, S213
Aliaksandr Varabei, S323
Ali Ben Ali, S193
Ali Bilgen, S486
Alice Lunedo, S290
Ali Değertekin, S874
Ali Demir, S238
Ali Gavidel, S676
Ali Gholami, S351, S735
Ali Karataş, S289
Ali Kazerouni Timsar, S614, S819
Ali Moheb-Alian, S678
Alina Jucov, S532
Alina Popescu, S715, S753, S795, S836, S838, S841
Ali Rahimi Petrudi, S574
Alireza Delavari, S751
Alireza Jahanshahi, S209
Alireza Rafiei, S375
Alireza Sadjadi, S553
Ali Reza Safarpour, S205, S207, S233, S478, S695
Alireza Samadi, S387, S388
Alireza Sima, S149, S245, S284, S693, S803
Ali Reza Sima, S353
Ali Saeidpour Parizi, S353
Ali Saffet Gönül, S533
Alisa Vnukova, S195, S196
Ali Şenkaya, S300, S391
Alistair Pagnamenta, S711
Ali Uğur Ural, S757
Aliya Ualiyeva, S561
Aliye Soylu, S874
Alka Singh, S222, S543, S580, S806, S807, S814, S821
Alla Kochetkova, S175
Alliouch-Kerboua Cherifa, S573
Alliouch-kerboua Taha Amina, S562, S566, S573, S580
Almagul Djumabayeva, S561
Alpaslan Alp, S729, S756
Alpaslan Tanoglu, S749, S780
Alp Atasoy, S453, S874, S878, S879
Alper Uğuz, S167
Alp Yıldız, S682
Altaf Shah, S730, S754, S755
Amal Bouziane, S770
Amal Khessiba, S550, S566
Amaneh Shayanrad, S544
Amany Elbanna, S204
Amarender Puri, S537
Amarender Singh Puri, S538
Amarjargal Batdelger, S251
Amaya Romeo, S298
Amie Vidyani, S578, S656
Ami Mehta, S434
Amina Benzzine, S507
Aminu Aliyu, S724
Amir Anoushiravani, S480, S692, S693
Amir Anushiravani, S245, S284, S353
Amirhossein Faraji, S789
Amir-houshang Sharifi, S256
Amir Nazarian, S304
Amir Sadeghi, S198, S199
Amir Sultan, S408, S409
Amitabh Srivastava, S385
Amna Subhan Butt, S162
Amrani Laila, S648
A. Mübin Özercan, S631, S633
A. Murat Buyruk, S391
Ana Bagués, S535
Anabela Raymundo, S146
Ana Capelinha, S812
Ana Célia Caetano, S841, S842
Anahita Sadeghi, S149, S256, S284, S693
Ana Ines Galain, S214
Anait Babayan, S437
Ana Kalaba, S256
Ana Karadzova Dzambaz, S549
Ana Lima, S146
Ana Lopes Santos, S833, S835
Ana Lourenço, S413
Ana L. Santos, S747, S748, S749, S774
Anam Ahmed, S806
Ana Maria De Brito, S490
Ana-maria Ghiuchici, S482, S792
Ana-Maria Ghiuchici, S483
Ana Maria Oliveira, S718, S723
Ana Maria Singeap, S173, S470
Ana-maria Singeap, S425, S426
Ana Patrícia Andrade, S747
Ana Rita Motta-Castro, S490
Anass Rahaoui, S406, S769
Anastasia Akhramovich, S279
Anastasios Stefanopoulos, S372
Ana Ventim, S413
Anca Trifan, S173, S322, S425, S470
Anca Trifan, S173, S426
Anche Volkanovska Nikolovska, S549
Anders Damholt, S295, S296
Andrada-patricia Belintan, S795
Andrea Ederle, S511
Andrea Zschätzsch1, S715
Andreea Barbulescu, S753
Andreea Chifulescu, S759, S787
Andreea Corobea, S482, S483, S792
Andreea Teodorescu, S173
Andrei Matveichyk, S330, S331
Andrei Yukhnavets, S323
Andrew Ross, S380
Andrey Baranovskiy, S300
Andrey Savchenko, S311, S312
Andrey Terskov, S404
Andrianarimanana Diavolana, S204
Aneta Ivanova, S247
Aníbal Ferreira, S842
Anil K Verma, S807
Anirban Jabbar, S709
Anita Malhotra, S814, S821
Anita Wichmann Gustafsson, S297
Anja Wellejus, S295, S296, S297
Anjiya Sulaiman, S786
Anm Saifullah, S463
Anna Bashkirova, S439
Anna Boozzola, S385
Anna Kagramanova, S167, S345, S437
Anna Kagramanova, S342
Anna Sapone, S385
Anna Sviridova, S264
Ann Cross, S628
Annie Kanunga, S246
Ann Margaret Navarroza, S809
Anshu Srivastava, S427
Anthony Blikslager, S778

Antonio Carroccio, S385
António Guimarães, S146
António Moreira, S146
Antonio Oliveira, S812
Antonios Mpakas, S361
Anton Schlesinger, S715
Anuradha Rai, S803, S817
Anurag Shetty, S430
Anwarul Azim, S694
Apoorva Srijayadeva, S430
Aproo Sharma, S555
Apurva Bacchav, S558
Arash Kazemi, S375, S574
Arbab Muhammad Kashif Khan, S705
Arcelia Guerson Gil, S612, S614, S782, S819
Arda Ellidokuz, S390
Argjira Juniku-Shkololli, S764
Arif İrfan Soykan, S343, S537, S861
Arif Karakaya, S749
Arli Kristo, S328
Armando Peixoto, S150, S747, S748, S813
Arman Karimibehnagh, S735
Armida Sasunova, S175
Arnab Ghosh, S803
Arnold Vitug, S365
Aron Eklund, S295
Arwa Guediche, S177, S178, S179, S180, S181, S564, S670
Aryuna Tsyrempilova, S310
Arzu Ensari, S370, S385, S452, S454, S457, S460, S604
Arzu Tiftikci, S394, S405, S419, S488, S500, S540, S624, S821
Asad Mehmood Raja, S798
Asen Aleksiev, S247
A. Şener, S862, S863
Asfia Arham Khursheed, S740
Asfold Parfenov, S167, S437
Ashish Agarwal, S543, S806
Ashish Chauhan, S806
Ashish Gandhi, S768, S802
Asim Leblebici, S390
Asish Goel, S162
Aşkın Ateş, S603
Aşkın Yazıcı, S453
Aslı Çiftçibaşı Örmeci1, S453
Asmaa Jniene, S769
Asmae Lamine, S144, S249, S508, S512, S711
Asmae Lamine, S247
Asmae Lamine Sejai, S214, S765, S766, S797
Asmae Sair, S771
Asmae Sarhani, S461, S555, S560
Asma Ouaksaa, S496
A.S. Tartar, S862
Astha Shukla, S824, S887
Asya Eylül Ağaoğlu, S416
Atahan Durbaş, S637
Atakand Yeşil, S405
Ataman Köse, S316
Atefeh Esmailnejad, S205, S207, S233
Athanasios Paikos, S361
Athanasios Panoutsopoulos, S372
Atsushi Miki, S215
Atsushi Takahashi, S141
Augustine O. Uhunmwangho, S397, S636
Augustin Makenya, S511
Augusto Aldave-herrera2, S423, S528, S524, S649
A. Ulu, S865
Averous Gerlinde, S885
Avick Nag, S776
Ayadi Shema, S485
Ayari Myriam, S485
Ayaskanta Singh, S340, S341, S346, S347, S348
Ayaskanta Singh, S267, S340
Aybala Yıldız, S682
Ayca Sayi Yazgan, S394
Ayda Aydoğan, S630, S840
Aydana Kaliyakparova, S561
Aydin Şeref Köksal, S781
Aydıncan Akdur, S857
Aydın Demiriz, S390
Aydın Şeref Köksal, S832
Ayhan Gazi Kalaycı, S377
Aykut Ferhat Celik, S551, S880
Aylin Demirezer Bolat, S339
Ayman Yosry, S250
Ayse Akpinar, S390
Ayşe Güldem Kılcıler, S137
Ayşegül Erdoğdu Bakır, S746
Ayşegül Ertınmaz Özkan, S848
Ayşegül Kozak, S145
Aysel Mamedova, S404
Ayşe Nurdan Tözün, S419
Ayşenur Hoş, S722
Ayşe Sancak Özer, S238
Aysun Bozbaş, S383, S488, S490, S493, S540, S821
Aysun Çalışkan, S370, S628, S631
Aysun Calışkan Kartal1, S343, S604, S830, S861
Ayumu Yoshikawa, S696
Azada Alekperova, S381
Azada Rahimova, S381
Azam Hadadi, S678
Azib Nada, S586
Aziz Aourarh, S653, S656, S657, S658, S849, S851, S852, S855, S856
Aziz Hakkı Civriz, S838
Aziz Yazar, S383
Aziz Zentar , S640

**B**

Babatunde Olusola, S735
Badamsuren Dorjgotov, S251
Badre Wafaa, S550
Bagus Setyoboedi, S485, S486
Baharak Danyaee, S202
Bahar Saberzadeh Ardestani, S353
Bahattin Çiçek, S394, S405, S500, S540, S821
Bâldea Victor, S382, S752, S753
Banu Demet Özel Coskun, S424, S667
Banu Oflaz Sönmez, S522
Barange Karl, S607
Barbara R. Conway, S592, S616
Barbaros Oral, S882
Bardia Khosravi, S353
Başak Doğanavşargil, S145, S300
Başak Oyan, S383
Basant Kumar, S427
Battulga Adiyasuren, S470
Bayasgalan Luvsandagv, S470
Bayram Yeşil, S832, S866, S875
Beatriz Pinto, S413
Behdad Behnam, S302, S315, S688, S789
Behnam Honarvar, S363
Behrooz Z. Alizadeh, S141
Bekir Kocazeybek, S584
Belén Elvira Mendoza De Molano, S403, S503, S516, S517, S569
BelÉn Elvira Mendoza De Molano, S515
Belén Millán, S298
Belhadj Mabrouk Emna, S485
Bellabah Ahmed, S550
Belma Kalaycı, S156
Belmaqrout Sara, S509
Benajah Dafr-Allah, S765, S766
Benan Kasapoğlu, S182
Bende Felix, S752
Benedict Devereaux, S283
Benelbarhdadi Imane, S394, S480, S597, S600, S793, S800, S801, S825, S827

Ben El Barhdadi Imane, S781, S796
Benelbarhdadi Imane, S794
Benjamin L Cohen, S276
Benjelloun Elbachir, S626, S647
Benjelloun El Bachir, S616
Benkabbou Amine, S648
Benmaouche Nabila, S206
Bennani Meryem, S265
Benoy Sebastian, S185, S186, S190, S369, S370, S744
Benzzoubeir Nadia, S463, S508, S509, S549, S554, S559, S586, S800
Berat Dilek Demirel, S377
Berat Ebik, S309
Berfin Şenol, S875
Berhili Camelia, S597, S600, S781, S793, S796, S800, S801, S825, S827
Berhili Camilia, S480, S794
Berkan Karabuğa, S183
Berkeşoğlu, S360
Berna Savaş, S479
Berrin Karadağ, S722
Beth Harrison, S711
Betül Çavuşoğlu Türker, S654
Betül Ersöz Acar, S664
Betül Sözeri, S433
Beytullah Yıldırım, S757, S834, S876, S882
Beyza Kurt, S390
Bianca Levandowski, S290
Bianca So, S176
Bikash Adhikari, S292
Bilal Ergül, S584, S612, S635, S655
Bilal Toka, S591, S781, S832
Bilge Özdemir, S411
Bilger Çavuş, S453
Biljana Borzan, S493, S499
Biljana Prgova Veljanova, S497
Bimal Chandra Shil, S410, S463
Bira Namdag, S251
Birendra Nath Saha, S140, S682, S714, S746
Birsen Yücel, S434
Bisma Imtiaz, S730
Bita Geramizadeh, S205
B. Kurtaran, S861, S863, S865
Bledar Kraja, S500
Bochra Bouchabou, S589, S595
Bogdan Miutescu, S539
Bomba Tatsinkou Francis Désiré, S227
Boon-bee George Goh, S796
Borahma Mohamed, S480, S597, S600, S793, S801, S825, S827
Borahma Mohamed, S794, S796, S800
Boram Whang, S223
Boris Starostin, S407
Bouazzi Amal, S193
Bougtab Abdesslam, S648
Boutaina Bouibaouen, S508, S510
B. Radha Krishnan, S778
Brian Long, S283
Brigita Smolovic, S398, S575, S642
Brittany Fay, S283, S293
Bruce Dzyngel, S276
Bruno Mettepenningen, S719
Brynjulf Mortensen, S295, S296
Budi Widodo, S408, S578, S520
Buğu Bulat, S452, S454, S537, S603, S630
Buket Karsavuranoğlu, S875
Bulent Baran, S209
Bulent Değertekin, S821
Bülent Kantarçeken, S261, S266, S622
Bülent Ödemiş, S843
Bülent Yıldırım, S193
Bumhee Park, S224
Burak Ekrem Citil, S787
Burak Ölmez, S755
Burak Özşeker, S787
Burçak Kayhan, S848
Burçin Şeyda Çorba, S834, S876
Burcu Gül, S160
Büşra Haktanıyan, S630, S840
Büşra Yaprak Bayrak, S838
B V Tantry, S430

## C

Çağdaş Aktan, S145, S848
Çağla Solman, S637
Calin Burciu, S482, S483, S792
Cama Rigers, S443
Camelia Berhili, S404, S406, S413, S414, S441, S477, S534, S568, S607, S767, S769, S771, S772, S785, S824
Camélia Berhili, S608, S627, S632, S634
Camelia Berhili, S394, S599, S769, S770
Camelia Cojocariu, S173, S425, S470
Camelia Foncea, S715, S753
Camelia Gianina Foncea, S539, S795
Camillo Di Bella, S385
Canan Alkım, S872
Can Davutoğlu, S411
Can Dolapçıoğlu, S874
Can Gönen, S624, S625
Cannanore Ganesh Pai, S418, S458
Can Öner, S472
Cansu Çalışkan Kurt, S145
Carina Leal, S728
Carla Sousa Andrade, S606, S812, S815
Carl Kendall, S490
Carlo Catassi, S385
Carlos Almeida, S413
Carlos Gálvez, S535, S581
Carlos Rodriguez-Ulloa, S524, S649
Carlo Widmayer, S511
Carmen Preda, S759, S787
Carolina Ciacci, S385
Carolina Olano, S214
Caroline A. Lee, S143
Carol Stanciu, S173, S425, S426, S470
Carson Popper, S778
Catalin Sfarti, S173, S425, S426, S470
Catarina Correia, S728
Catherine Conway, S779
Catherine Sauvaget, S751
Cátia Lia Abreu, S842
Catur Setiya Sulistiyana, S317
CavanŞir Vahabov, S195, S725
C E Eapen, S162
Celal Ulaşoğlu, S857
Cem Arıtürk, S594
Cem Aygün, S383, S405, S490, S493, S821
Cem Şimsek, S195, S729, S756
Cengiz Karacaer, S832
Ceren Orhan, S725
Čestmír Neoral, S281, S282
Chaabouni Hatem, S630, S635, S639, S641
Chanchal Kumar Ghosh, S140, S714
Chandrasekar Thoguluva Seshadri, S415, S468, S478, S890
Chandra Shekhar Dasari, S380
Chang Beom Ryu, S184, S274, S275
Chee-kiat Tan, S796
Cheh Kuan Tai, S349, S350
Cheng-Hao Tseng, S161
Chengxue Dang, S670
Chenhao Hao, S713
Chen-hsun Chan, S826
Chen Zhang, S154, S785
Cheraitia Salima, S206
Cherng Harng Lim, S192
Chetan Chhikara, S418
Chetan R Kalal, S162
Chiara Bovo, S511
Chiara Ricci, S385
Chia-shin Wuu, S523
Chieh-Chang Chen, S161
Chikato Koga, S466
Chikhi Yazid, S206
Chi-Ming Tai, S161

Ching-liang Kuo, S826
Chin Kimg Tan, S354
Chip Farmer, S328
Chiraz Chaabane, S566
Chitranshu Vashishtha, S802
Chi-Yang Chang, S161
Chi-Yi Chen, S161
Chong Teik Lim, S337
Choong-kyun Noh, S194, S224, S359
Chris Mulder, S385
Chrissy Bolton, S711
Christina Barmpagianni, S361
Christina Papadima, S372
Christine Rodger, S385
Christo Pentchev, S247
Christopher H. Cabell, S143
Christopher Khor, S807
Christopher Yin Hiew Kia, S283
Christos Serafeim, S372
Chuan-yi Chien, S826, S829, S845
Chufang Xu, S679
Chun-chia Cheng, S236
Chung-ying Lee, S332, S523
Chun-hung Yang, S826
Chun-Ying Wu, S161
Ciaran P. Kelly, S222
Çiğdem Vural, S838
Cihad Altunyaprak, S591
Cihangir Akyol, S452, S537
Cinthia Choque, S189
Ciortescu Irina, S376, S377
Clarel Camille Ng, S542
Clement Wu, S807, S809
Clodagh Murphy, S295
Concepción Nieto, S298
Corina Pienar, S579
Coro Barreiro, S298
Coşkun Yıldız, S455, S790
Cristiana Tioli, S137
Cristian Baicus, S759, S787
Cristian Camilo Páez Cancelado1, S403, S503, S515, S516, S517, S569
Cristian Diaz-velez4, S423, S528
Cristian Hocopan, S426
Cristina Muzica, S470
Crystal C. Umejiaku, S636
C Sanjoba, S174
Cumali Efe, S678
Cynthia Contreras, S429, S659, S660
Cyril Alex, S369

**D**

Dabbèche Radhouène, S485
Dae Young Cheung, S243
Dafina Nikolova, S549
Dafr-allah Benajah, S214, S508, S512, S797
Dafr Allah Benajah, S144, S247, S249, S711, S766
Daisuke Manabe, S215
Daisuke Yanagisawa, S215
Dake Chu, S154, S670, S686
D. Alexander Oh, S143
Dalia Allam, S182, S499
Dalia Mohamed Alamin Abass, S716
Dalila Costa, S841, S842
Danciu Mihai, S376, S377
Daniel A. Leffler, S222
Darina Gogova, S487, S847
Dauda Eneyamire Suleiman, S379
Davaadorj Duger, S470
David Hayman, S385
David Horta, S717
David Sanders, S385
David Wong, S567
Dayyan Adoor, S358
Debasis Datta, S709
Debasis Misra, S341
Decio Chinzon, S356, S357
Deepak Bhayana, S846, S847
Deloar Hoshen, S590
Denisa Erhartova, S677
Denise De Carvalho, S314
Denis Turchaninov, S279
Deniz Öğütmen Koç, S684
Deniz Sarıca, S814
Dennis Martin Castro, S542, S543, S809
Derya Arı, S805, S822, S832, S843, S859, S860, S866, S867, S875
Derya Kalyoncu, S238
Derya Kayas, S654
Desmond Leddin, S779
Devran Bozyiğit, S414
Dexton Johns, S368
Dhouha Cherif, S367
Diaa B. Eldib, S674
Diana Abdulganieva, S389
Diana A Payawal, S162
Diana Gherhardt, S539
Diana Lungeanu, S753
Dianne Jones, S779
Didem Karadibak, S788
Diego Romero-Miguel, S581
Diğdem Özer Etik, S836, S857
Dilara Akbulut, S370, S457, S460
Dilaram Khan, S671
Dilek Oğuz, S435, S584, S612, S635, S655, S757
Dilek Tucer, S874
Dimitra Tsakiri, S372
Dimitrios Paikos, S361
D. İnan, S862, S863
Diogo Branquinho, S728
Diptimayee Mallik, S340
Dmitriy Kulakov, S437
Dmitry Andreev, S264
Dmitry Bordin, S496
Doğan Nasir Binici, S808
Doğukan Özbey, S584
Doina Istratescu, S759, S787
Dolvy Girawan, S519
Donald R. Duerksen, S222
Dong-Feng Chen, S171
Dong Hyun Sinn, S384
Dong Ki Lee, S171, S172
Dong Wook Jekarl, S285
Dong Wu, S253, S812
Dongyan Yang, S583
Donika Krasteva, S247
Dorina Chisevescu, S539
Dorina Osmanaj, S245, S355, S421, S501
Dorra Trad, S496
Dousset Bertrand, S829
Dragan Vukovic, S412
Draginja Bjelica, S587
Dragos Suseanu, S539
Duaa Abduljabbar, S322
Dupe Hinmikaiye, S724
Dušan Klos, S281
Dusan Zaric, S256
Duygu Ateş, S362
Duygu Kırkık, S780
Dzmitry Adzinets, S197, S330, S331
Dzmitry Haurylenka, S541, S542

**E**

E. Akıncı, S862
Ebru Evren, S810
Ebru Tarıkçı Kılıç, S763
Ece Bilgiç, S344, S370, S452, S454, S457, S460, S537, S603, S630
Ecem Çağla Hayırlıoğlu, S383
Eda Erdiş, S434
Eda Kaya, S525, S857
Edith Okeke, S338
Eduardo Dutra, S717
Eduardo Emilio Londoño Schimmer, S403, S515, S516
Eduardo Huarte, S283, S293

Eduardo Rodrigues-Pinto, S708
Eka Surya Nugraha, S519
Ekaterina Borisova, S404
Ekaterina Gorchilova, S312
Ekaterina Melnikova, S619
Ekaterina Pazenko, S225, S300
Ekin Yiğit Köroğlu, S343, S861
Ekrem Orbay, S472
Elahian Boroujeni Azinmehr, S351
El Atiq Sara, S609, S616, S626, S647
El Bacha Hicham, S463, S509, S549, S554, S586, S800
El Bacha Hicham, S607, S829
El Bahaoui Nezha, S648
El Baroudi Saad, S199
Elbouhaddouti Hicham, S609
Eldar Aliyev, S494
Eleanora Mikhnevich, S210
Elena Bardymova, S310
Elena Barkalova, S264
Elena Belousova, S389
Elena Chashkova, S389
Elena Daniela Burtea, S831
Elena Lak, S209
Elena Onuchina, S309
Elena Tatiana Ivan, S646, S831
Elena Tikhonova, S311
Elen Valitova, S496
Elgida Volpicelli, S260
Elham Aghamohammadi, S678
Elham Salmaliaan, S352
Élia Coimbra, S717
Elif Gram Bacaksız, S455, S790
Elif Merve Aydin, S394
Elif Sitre Koç, S383
Elif Yaprak Saraç1, S158, S160
Elif Yorulmaz, S362, S411, S465
Elina Kondrashina, S225, S300
Elisabete Rios, S813
El Karimi Amine, S549
Ella-portia Veglio-taylor, S432
Elly Ogutu, S779
El Mohammadi Mohammed, S225
El Moufid Houda, S199, S225, S265
El Mountassir Meryem, S793, S794
Elssayed Osman, S783, S828
Ema Nassone, S287
Emanuel Dias, S747
Emel Ahısalı Erim6, S874
Emel Ahıshalı, S418
Emel Bayrak, S814
Emilija Nikolovska, S549
Emilio Socias, S659, S660
Emin Kürekçi, S814
Emircan Erecan, S411
Emna Bel Hadj Mabrouk, S371, S641
Emna Chalbi, S566, S610
Emrah Alper, S418
Emrecan Çelebioğlu, S615, S620
Ender Ellidokuz, S390, S486
Enes Ali Kurt, S880
Engelbert Simon Perillo, S543
Engin Altintaş, S359, S360
Engin Altınkaya, S432, S434, S445, S477
Engin Altıntaş, S229, S230, S242, S316, S473, S474, S697, S818, S874
Engin Ersin Şimşek, S472
Enjel Gabriel, S716
Enkh-ulzii Mendbayar, S252
Enny Suhaeni, S317
Enrik John Aguila, S722, S738, S739, S741, S791, S890
Enver Üçbilek, S229, S230, S242, S316, S359, S360, S473, S474, S697, S874
Ephrem Ntakirutimana, S511
Erald Karaulli, S500
Ercüment Ovalı, S757
Erdal Karaöz, S137
Erdem Akbal, S874
Erdem Koçak, S874
Eren Cankurtaran, S428
Erkan Parlak, S781
Erkan Yılmaz, S584
Erkin Öztaş, S435, S888
Erol Çakmak, S432, S434, S477, S758
Erol Çakmak,
Errabih Ikram, S463, S509, S554, S559, S586, S800
Ersin Öztürk, S854
Ersin Tuncer, S432
Ertuğrul Kayaçetin, S859, S867, S875
E. Senates, S862, S863
Eser Kutsal, S625
Eser Vardareli, S488, S821
Esin Özkan, S663, S664
Eskandar Hajiani, S202
Eskandar Hajiani, S209
Esra Özdağ, S791
Esra Üzelpaşacı, S725
Esteghamati Alireza, S351
Eunhee Han, S285
Eunyoung Lee, S224
Eva Honsova, S847
Eva Kieslichova, S139
Eva Sticova, S677
Evi Rokhayati, S485
Evren Üstüner, S615, S620
Eylem Çağıltay, S780
Eylem Karatay, S638
Eyüp Naci Tiftik, S880
Eyüp Selvi, S428
E.Y. Zerdali, S861, S862, S863, S865
Ezekiele Moirana, S511
Ezgi Pınar Özbalak, S879

**F**

Fabiana Roveda, S356, S357
Fabiola Fernandes, S287
Fadime Gül Salman, S604
Faezeh Alemi, S262, S263, S264
Faezeh Razjouyan, S339, S846
Faisal Aslam, S705
Faisal Nawaz, S622
Fana Lichoska Josifovikj, S549
Farahnaz Joukar, S386, S387, S388
Faraz Bishehsari, S751
Farhad Zamani, S789
Farhana Kayani, S518, S745
Farhan Aslam, S303
Farheen Hashmi, S399
Farheen Lubna, S518
Farheen Lubna Hashmi, S373
Fariborz Mansour-ghanaei, S386, S387, S388
Farid Ahmad Toor, S326
Farida Souidine, S471, S482, S498, S506, S511, S534, S535, S536, S563, S565, S789, S834
Farid Hajiyev, S486
Faris Elkhidir, S333, S651, S652, S858
Farnaz Farsi, S208, S209
Farnoush Barzegar, S198, S199
Faruk Aksoy, S885
Faryal Subhani, S730
Fatemeh Panahandeh, S200
Fateme Tajik Rostami, S278
Fathia Harrabi, S193
Fatih Beşışık, S453, S878, S879
Fatih Eren, S525, S591
Fatih Hilmioğlu, S857
Fatih Karataş, S848
Fatih Kıvrakoğlu, S183, S228, S422, S428, S593, S600, S605
Fatih Oğuz Önder, S346, S383 S419, S488, S821
Fatih Suna, S377
Fatih Tekin, S167, S391
Fatih Tipi, S594
Fatih Türker, S654
Fátima Carneiro, S287, S812, S813
Fatima Grenho, S413

Fátima Maibaze, S287
Fatimazahra Ajana, S607
Fatima Zahra Ajana, S599, S404, S477, S568, S767, S769, S771, S824
Fatimazahra Cheikhna, S514, S515
Fatima Zahra El Rhaoussi, S378
Fatima Zahra Hamdoun, S249, S508, S512
Fatimazohra Ajana, S413, S414, S534
Fatima Zohra Ajana, S608, S627, S632, S634
Fatimzahra Ajana, S770, S772, S785
Fatjona Kraja, S500
Fatma Ben Farhat, S496
Fatma Betül Akçakaya, S160
Fatma Demirbaş, S218
Fatma Ebru Akın, S339
Fatma Nur Akdoğan, S729, S756
Fatma Tokat, S394
Fatma Yıldırım, S339
Faxin Ma, S286
Fazilathon Ariphodjayeva, S325
F. Duygu, S862, S863
Fedoua Rouibaa, S657, S849, S851, S852, S856
Fedoua Rouibaa, S653
Fehmi Ateş, S229, S230, S242, S316, S359, S360, S473, S474, S697
Fei Zhou, S760
Felix Bende, S836
Feng Xie, S253
Ferdaouss Lamarti, S770, S772, S785
Fergus Shanahan, S295, S296
Ferhat Bacaksız, S805, S832, S859, S860, S866, S867, S875
Ferhat Özden, S663
Ferit Avcu, S757
Ferit Çelik, S300, S391
Fernando Azevedo, S701
Fernando Contreras, S429, S659, S660
Fernando Robledo, S189
Feruze Enc, S857
Ferya Çelik, S526
Ferzan Aydın, S229, S242, S316, S697
Fevzi Coşkun Sökmen, S182
Feyzullah Uçmak, S309
Fidan Nasrullayeva, S662
Figen Gürakan, S522
Fikriye Yasemin Özatik, S827
Filipa Bordalo Ferreira, S718
Filipe Vilas-boas, S150, S708, S734
Filipe Vilas-boas Silva, S749
Filip Vukmirovic, S398
Filiz Akyüz, S453, S874, S878, S879
Firas Aissaoui, S177, S178, S179, S180, S670
F. Kusçu, S863
Fofiu Renata, S752
Foguieng Sadie Roger Hermann, S227
Foteini Rozi, S372
Fouad Haddad, S348, S378, S401, S402, S440, S507, S514, S515, S531, S585
Fouad Nejjari, S656, S852, S853, S854, S855, S856
Frances Abiemwense Ehirim, S602
Francesca Parmeggiani, S137
Francesco Azzolini, S137
Francesco Decembrino, S137
Francisco SÁ, S413
Franco Peral, S189
F. Sarıgül, S865
F. Sırmatel, S862, S863
F. Tabak, S861, S862, S863, S865
Ftima Zahra Ajana, S547
Fuad Mustafayev, S195, S729, S756
Fulya Günşar, S731
Fumex Fabien, S607
Fumio Nakayama, S400
Funda Özgenç, S237
Füsun Baba, S488
Fz Ajana, S406, S441, S769

**G**

Gabriela Ribeiro, S413
Gabriela Stefanescu, S322
Gabriel Becheanu, S385
Gabrio Bassotti, S385
Gadiri-meriche Sabiha, S562, S566, S580
Gadiri-Meriche Sabiha, S573
Gafer Elsafi, S295
Galina Belova, S207
Galina Fadieienko, S212
Galina Solovyova, S157
Galip Ersöz, S731
Galiya Bikbavova, S279
Galyna Fadieienko, S258
Gamal Esmat, S250
Gamze Serin Özel, S435
Ganime Çoban, S160
Ganna Maslova, S585
Gaurav Padia, S537
Gaurav Ratnaparkhi, S598, S824, S826, S839, S887, S888, S889
G. Çelebi, S862, S863
Gde Somayana, S422, S451
Geetika Khanna, S691
Gefei Wang, S793
Geir Folvik, S813
Gema Vera, S820
Gemma Mkondoo, S511
Geoffrey Homes, S385
Georgiana-Emmanuela Gilcă-Blanariu, S322
Georgios Mavras, S372
Gerardo Mendoza, S738, S791
Gerson Domingues, S356, S357
Geum-youn Gwak, S384
G.G. Tosun, S862
Gharbi Tarik, S800
Ghazala Kaukab Raja, S798
Gheorghe Liliana, S376, S377
Ghis Tayyab, S642
Ghita Kella Bennani, S413, S414, S534
Ghodratolllah Montazeri, S560
Gholamreza Rezamand, S387, S388
Gholamreza Roshandel, S698, S699
Ghulam Fareed, S706
Ghulam Mohammad Gulzar, S754, S755
Ghulam Nabi Yatoo, S730, S754, S755
Gian Carlo Carpio, S809
Gianfranco Grompone, S288
Gianpiero Aimo, S511
Gianpiero Bagnalasta, S511
Gilda Barzin, S751
Gil Ho Lee, S194, S224
Gilja Odd Helge, S567
Giovanni Casella, S385
Giridhar Reddy Banda, S685
Girinadh L.R.S, S685
Girleanu Irina, S376, S377
Giuliana Sereni, S137
Giuseppe Mazzarella, S385
Gizem Korkut, S158
Gizem Özan, S228
Gjorgji Deriban, S549
Gocha Barbakadze, S669
Gökçe Eser, S528
Gökhan Aksakal, S291
Gökhan Ecer, S885, S886
Gökhan Güngör, S868, S869, S870
Gökhan Kocaman, S631
Gökhan Moray, S857
Gökhan Tazegül, S778
Göksel Bengi, S158, S484, S486, S662, S649, S750
Göktuğ Şirin, S874
Gokul Bollu Janakan, S415, S468,

S478, S890
Gönül Aslan, S880
Gönül Çaltepe, S237, S377
Gopi Aryal, S802, S823
Gordana Strazivuk, S412
Gordon Guyatt, S480
Gorincioi Cristina, S377
Govind K Makharia, S222, S806, S807
Govind Makharia, S385, S543, S814, S821
Gözde Derviş Hakim, S383, S455, S790, S791
Grabar Sophie, S607
Grabner Julia, S323
Greta Dancu, S539
Greta Maria Dancu, S605
Guda Roro, S567, S813
Guilherme Macedo, S150, S700, S701, S702, S703, S708, S734, S747, S748, S749, S774, S833, S835
Guilherme Macedo, S813, S815
Guinevere Ang, S543
Gulbanu Shadiyeva, S417
Gülbüz Sezgin, S755
Gülçin Şahingöz Erdal, S819
Gul Javid, S754
Gul Nisar, S257, S303, S306
Gulnoza Abdullayev, S402
Gulnur Omarova, S417
Gülşah Balcı, S619
Gülşen Hasçelik, S729, S756
Gülşen Yıldırım, S814
Gülsüm Akkuş, S261
Gülsüm Özlem Elpek, S291
Gulustan Babayeva, S684
Güner Kılıç, S289
Gunnar Nysaeter, S567
Gupse Adalı, S874
Gupse Turan, S838
Gürhan Şişman, S405, S821
Gustavo Florez-Trujillo, S649
Gustavo Vasquez-tirado2, S524, S528
Gwen Marcellana, S365, S791
G. Yoruk, S863
G. Yörük, S861, S862

## H

Habersetzer Francois, S191
Haddad Fouad, S550
Hafez Fakheri, S373, S374, S375, S693
Hafez Tirgar Fakheri, S388, S553
Hajiah Shahbazian, S209
Hajira Bukhari, S745
Hakan Akıllı, S837
Hakan Alagöz, S874
Hakan Demirci, S137, S757
Hakan Göker, S729, S756
Hakan Korkut Atalan, S368
Hakan Kutlay, S631
Hakan Sarlak, S137
Hakan Ümit Önal, S405
Hakan Ümit Ünal, S488, S821
Hakan Yarkici, S383
Hakima Abid, S144, S214, S249, S508, S512, S711, S765, S766, S797
Hakima Abid, S247, S766
Hakkı Polat, S238
Hala Abuelhassan, S182, S499
Hale Akpınar, S486, S662
Hale Gökcan, S546, S866
Hale Kırımlıoğlu, S621
Halil Ahmetaj, S764
Halil Bingöl Değertekin, S414, S416
Halima Benjelloun, S769
Halis Şimşek, S729, S756
Halit Batuhan Demir, S167
Hamideh Salimzadeh, S751
Hamid Mohaghegh, S385
Hamid Mohaghegh Shalmani, S198, S199, S678
Hammama-tul-bushra Khaar, S257, S303, S306
Hanae Boutallaka, S771, S772, S785, S853, S855
Hanan Rkain, S769
Han Chong Toh, S212
Hania Shahzad, S730
Hans Tillmann, S651, S858
Hao Chen, S145, S154, S165, S286, S365
Harizi Rafik, S607
Harjit Singh, S724
Harol Felipe García Arévalo, S517
Harry Martin, S350
Harshad Devarbhavi, S162
Harshith Priyan, S380
Haruna Furukawa, S466
Harun Akar, S383, S455, S790
Hasan Yüksekkaya, S237
Hasmik Ghaziniyan, S162
Hasna Chergui, S471
Hassan Akrami, S478
Hassan Salmanroghani, S553
Hassan Seddik, S159, S636, S638, S640, S644, S771, S837, S844, S853, S854, S855
Hassan Vossoughinia, S693
Hatice Balcı, S316
Hatice Erdi Şanli, S454
Hatice Rızaoğlu Balcı, S229, S242, S697
Hatice Yasemin Balaban, S195
Hatice Yorulmaz, S362, S411
Havva Solak Özşeker, S787
Hayfa Ben Romdhane, S589, S595
Hayriye Esra Ataoğlu, S654
H.C. Gül, S862, S863
Hector Adolfo Polania, S726
Hector Calvo, S423, S528, S649
Hector Conrado Jimenez, S329
Hee Kyung Kim, S451
Heidar Sharafi, S363
Heiko Tzschätzsch, S715
Hejer Ben Jeddi, S367
Hela Kchir, S367
Helder Cardoso, S701, S702, S703, S734, S774, S815
Helena Vasconcelos, S728
Henrik Bjørn Nielsen, S295
Henry Cohen, S214
Henry Royero, S364
Herbert Burgos, S779
Herlyn Abasolo, S716
Herry Purbayu, S408, S520, S578, S656
Hicham El Bacha, S471, S482, S488, S489, S506, S511, S534, S535, S536, S563, S565, S834
Hichem Loghmari, S564
Hicran Bektaş, S526
Hijran Khidirova, S202
Hilary Jericho, S385
Hilmi Ataseven, S432, S434, S445, S477
Hind Beggar, S488, S489, S491
Hind Hamdani, S378
Hind Omari, S514
Hiroaki Yokomori, S234
Hiromichi Miyagaki, S466
Hisashi Oda, S696
Hitoshi Aoyagi, S215
H. Karsen, S862, S863, S865
H.K. Kumbasar, S862, S863
Hliwa Wafaa, S550
H.O. Çeri, S861, S863
Holly Lyne, S449
Holm Uhlig, S711
Holzmüller Philipp, S526
Homayoon Vahedi, S141, S149, S245, S284, S353, S693
Horacio Rubio, S189
Hosdurga Vijaya Pai, S418
Hossein Ajdarkosh, S218

Hossein Dabiri, S678
Hossein Poustchi, S256, S544, S698, S699
Hossein Shirazi, S278
Houda Ben Nejma, S589, S595
Hua Xu, S222
Hülya Çetinkaya, S343, S344, S370, S452, S454, S457, S460, S479, S537, S603, S604, S619, S630, S725, S810, S840, S861
Hülya Ercan Sarıçoban, S528
Hülya Över Hamzaoğlu, S821
Humaira Rashid Rashid, S532
Humberto Mariños, S423, S528
Hung-man Yu, S845
Huppertz Jerome, S191
Hüseyin Alkım, S872, S874
Hüseyin Ataseven, S238
Hüseyin Karaman, S637
Hüseyin Köseoğlu, S339
Hüseyin Semiz, S731
Husin Thamrin, S408
Hwai-jeng Lin, S332, S523

**I**

Ia Khurtsilava, S319
Ian Homer Cua, S681
İbrahim Ethem Taşkaya, S377
İbrahim Gören, S834, S876, S882
İbrahim Güney, S591, S869, S870
İbrahim Hatemi, S551, S880
İbrahim Hayek, S882
Idn Wibawa, S422, S451
İ. Dökmetaş, S862
I.E. Yıldız, S862, S863
Igor Maev, S264
Igor Skrypnyk, S581, S585
Iikram Errabih, S508
Ik-joo Chung, S221, S223
I. Köksal, S862, S863
Ikram Errabih, S471, S482, S488, S489, S491, S498, S506, S510, S511, S534, S535, S536, S563, S565, S789, S834
İlam Gaffarlı, S874
Ilana Agranovich, S404
Ileana Carzoglio, S288
Ilham El Koti, S159, S636, S638, S640, S644, S771, S837, S844, S853, S854, S855
İlhami Yüksel, S593
Ilham Serraj, S459, S465, S555, S560
Ilidio Abreu, S606
Ilir Akshija, S355, S357, S421
İlkane Kalantarova, S878
İlkay Gültürk, S880
İlkay Özdemir, S160
İlker Şen, S872
İlker Turan, S731
İlknur Dağ, S827
Ilyass El Alami, S653
İlyas Tenlik, S832, S860, S866
Imam Waked, S250
Iman Benelbarhdadi, S406, S441, S769
Imane Benelbarhdadi, S404, S413, S414, S477, S534, S547, S568, S599 S607, S608, S627, S632, S634, S767, S769, S770, S771, S772, S785, S824
Imen Abdellali, S575
Imen Jemni, S177, S178, S179, S180, S181
Imogen Welding, S349, S350
Imroati Tri Asih, S475
Imteaz Mahbub, S463
İncilay Kalay Yıldızhan, S344
India, S714
Ines Dourado, S490
Ines Šahinović, S493
Ingolf Sack, S715
In Kyung Yoo, S775
Inna Blokhina, S404
Ioannis Mitrakos, S361, S372
Ioannis Poulos, S372
Ioan Sporea, S482, S483, S605, S753, S792, S795, S836, S838, S841
Ioan Sporea, S539, S715
I. Özgüneş, S863
Iqbal Khan, S205
Iradj Maleki, S352, S375, S411, S574, S693
Iradj Maleki Mahmood Reza Amin Afshari, S375
Irambona Aimé-parfait, S480
Ira Yu, S222, S687
İrem Gül Doğan, S725
İrem Sarı, S377
Irena Eftimovska Rogach, S497
Irena Mikova, S677
Irene Paulson, S162
Irfan Shera, S742
Irina Florina Cherciu Harbiyeli, S646, S831
Irina Girleanu1, S173, S425, S426, S470
Irina Gubonina, S389
Irina Mihaela Cazacu, S646, S831
Irina Petrunko, S309
Irina Timchenko, S264
Irmak Polat, S533
Isabel Bastos, S728
Isamu Koyama, S220
İsmail Acar, S664
İsmail Hakkı Kalkan, S822, S859
İsmail Şalk, S445
İsmet Tamer, S472
İsmet Tolu, S870
Issaoui Dhilel, S630, S635, S639, S641
Iswan Abbas Nusi, S408, S520
Iswan A Nusi, S578, S656
Itsuki Sano, S696
Iuliia Reutova, S619
Iuliia Shekhovtsova, S456
Ivana Knezevic Stromar, S392
Ivan Gvozdev, S312
Ivo Jones, S188
Ivo Klementa, S282
I-Wei Chang, S161

**J**

Jaclyn Yizhen Tan, S349
Jae Bum Park, S224
Jae Hee Cheon, S141, S666
Jae J. Kim, S353
Jae Jun Park, S666
Jae Keun Kim, S224, S359
Jae Keun Park, S451
Jae Youn Cheong, S224
Jaime Balarezo-martinez, S423, S528
James Crisfil Fructuoso Montesa, S521, S556
James Going, S385
James Greenan, S349
James Morgan, S711
Jamilya Kaibullayeva, S389, S561, S562
Jana Krajciova, S216
Jana Maluskova, S216
Jan Brezina, S320, S342
Jan Martinek, S139, S216
Jan Peregrin, S847
Jan Raupach, S847
Jan Sperl, S305, S487
Jan Tack, S399
Jason Hwang, S283
Jaswinder Singh Sodhi, S730, S755
Jaswinder Sodhi, S754
Javansir Vahabov, S729, S756
Javed Pottachilakath, S754
Javeria Khan, S257
Javier Suárez-almarza, S298
Jaw-Town Lin, S161

Jaya Agarwal, S587
Jayal Mehta, S248
Jay Madan, S778
Jean A Donet, S423, S524, S528
Jeanne Olsen, S297
Jean Tafarel, S290
Jeffey George, S319
Jelena Jovetic, S398
Jelena Petkovic-dabic, S530
Jennifer Higa, S889
Jenny Susan, S185, S186, S189, S190, S211, S370
Jenny Susan, S369, S744
Jenny Taylor, S711
Jeong-seon Ji, S242, S285
Jerica Esguerra, S521, S556
Jesse Abiodun Otegbayo, S735, S757
Jesse Hall, S276
Jiaming Qian, S812
Jianan Ren, S148
Jiayu Zhang, S679
Ji Hae Nahm, S171
Jihat Kılıç, S309
Jimmy Narayan, S340, S341, S346, S347, S348
Jin Hong Kim, S224, S359
Jin Il Kim, S243
Jin Lee, S308
Jinmyeong Oh, S384
Jin-shui Pan, S760
Jin Yong Lee, S274
Jinzhou Zhu, S679
Jioji Malani, S779
Jiri Novotny, S847
Joana Cardoso, S413
Joana Carvão, S150, S606, S812, S813, S815
Joana Mota, S146
Joanna Law, S380
João Adriano Sousa, S812
João Boavida Ferreira, S146
João Campos, S413
João Rocha, S146
Joaquim Prado De Moraes-filho, S357
Joaquim Prado P. Moraes-filho, S356
Jocelyn Silvester, S222
Joel Silva, S747, S748
Johaniya Dimaporo, S521, S522, S556
Johan Van Hylckama Vlieg, S295, S296
John Davis, S372
John Hsiang, S809
John O'grady, S295
John Ryan, S326
John S. Grundy, S143
John Taylor, S711
Jonard Co, S739, S890
Jonas Augusto Ramos, S152
Jonathan Crisostomo, S406, S767
Jonathan King, S431, S432, S434
Jongha Park, S308
Jong Ho Moon, S451
Jong Hyuk Park, S403, S503, S515, S516
Jong Hyuk Park Noh, S517, S569
Jong Kyun Lee, S353
Jonner Pelaez, S423, S528
Joon Hyeok Lee, S384
Joon Mee Kim, S172
Joo Young Cho, S775
Jorabar Singh Nirwan, S592, S616
Jorge Enrique Padrón Mercado, S403
Jorge Padrón Mercado, S516
Jorge PadrÓn Mercado, S515
Jorge Rojas-vera, S524
Jose Adolfo Duran, S429, S659, S660
Jose D. Debes, S408
Josef Chudáček, S281
Josef Cindr, S305
Joseff Karl Fernandez, S222, S687
Jose Lara Gonzalez, S372
Joseph Bocobo, S741
Joshua Satchwell, S304
Joulani Mohammadamin, S351
Jualita Heidy Saputri, S520
Juan Cadafalch, S298
Juan Dapueto, S214
Juan Felipe Sanjuan, S329, S330, S366, S602, S726
Juan Zhang, S686
Judith Marsh, S711
Juha Taavela, S385
Julia Carvalho Ramos, S290
Julia Gorgun, S323
Juliana Almeida, S841
Julian Oliver, S283, S293
Julia Tonkikh, S309, S310, S311
Juliet Gopez-Cervantes, S739
Julio Cesar Bai, S385
Julius Rustia, S722
Julius Spicak, S139, S216, S305, S320, S342, S487, S677, S847
Julius Spicak Milos Mraz, S681
Junichi Hasegawa, S466
Jun Ishihara, S668
Jun-ming Samuel Lim, S796
Jun Yong Bae, S184, S274, S275
Jun Zhang, S154
Juraj Riško, S282
Jusuf Vejseli, S186, S497
Jyh-Jou Chen, S161
Jyunya Gibo, S151

**K**

Kabbaj Nawal, S501, S505, S506, S530
Kader Irak, S465
Kadir Demir1, S453, S878, S879
Kadir Gisi, S261, S266, S622
Kadir Öztürk, S757
Kadri Atay, S551
Kalina Grivcheva Stardelova, S549
Kalpesh Besherdas, S419, S420, S431, S432, S434, S436, S440, S443, S445, S446, S447, S448, S449, S450, S628, S799
Kamel Rohoma, S204
Kamil Özdil, S874
Kamil Yalçın Polat, S368
Kamran Ayub, S220, S248
Kamran Bagheri Lankarani, S363, S472, S695
Kamran Rostami, S385, S678
Kang-moon Lee, S242
Kanive Parashiva Guruprasad, S458
Kanyshay Mamyrbaeva, S389
Karim Bayoumi, S358
Karina Noskova, S167
Karina Raikhelson, S225, S300
Karla Jenisse Feliciano-Salvá, S307
Karmun Ang, S436
Kar Mun Ang, S448, S449, S450
Katri Kaukinen, S385
Katsiaryna Adzinets, S197
Katsiaryna Liaonchyk, S210
Katsunori Sakamoto, S335
Katsuya Okada, S220
Kavel Visrodia, S779
Kazem Zendehdel, S693
Kazi Zakir Hossain, S777
Kazuaki Akahoshi, S151
Kazuaki Harada, S696
Kazuki Inamura, S151
Kazutoshi Fukase, S231
Kazuya Akahoshi, S151
Kchir Hela, S630, S635, S639, S641
Kee Myung Lee, S224, S359
Keiji Matsuda, S215
Keijiro Nozawa, S215
Keiko Yamazaki, S141
Kei Tamura, S335
Kelly Burak, S846, S847
Kemal Kürbüz, S874
Kendal Yalçın, S309
Kenechukwu Okonkwo, S724

Keng Sin Ng, S809
Kenji Sasaki, S255
Kentarou Yodoe, S151
Kerala, S714
Kerem Kenarlı, S343, S810, S861
Kevser Oğuz, S875
Khaled Abdelwali, S406, S441, S769
Khaled Abdelwaly, S608
Khaoula El Montacer, S515
Khaoula Loubaris, S159, S636, S638, S640, S644, S837, S844, S853, S854, S855
Khishgee Duinkhejav, S252
Khishgee Duinkherjav, S251
K. Hizel, S863, S865
Kholili Ulfa, S475
Kiarash Riazi, S846, S847
Kin Foong Lim, S724
Kirill Kryukov, S619
Klara Chmelova, S305, S342, S487
Koho Wamba Cédric, S227
Koichiro Abe, S215
Koji Miura, S244, S335, S400
Koji Miura,
Kojun Okamoto, S220
Kolawole Oluseyi Akande, S735, S757
Kondarappassery Balakumaran Leena, S850
Koray Ceyhan, S628, S633
Koray Ergunay, S729, S756
Koudai Kato, S668
Kouihal Wassila, S206
Krasimir Antonov, S247
Krishnan Raman, S724
Kristyna Mezerova, S282
K. Türker, S862, S863, S865
Kübra Köken, S452, S454, S537, S603, S630
Kuhu Roy, S695
Kulpash Kaliaskarova, S417
Kun Guo, S148, S793
Kun Zhu, S670
Kwang Cheol Koh, S384
Kwok Tang, S442, S449
Kyohei Maruyama, S215
Kyung-keun Kim, S221, S223

**L**

Laaziza Chahed Ouazzani, S834
Laaziza Ouazzani, S471, S482, S488, S489, S491, S498, S506, S510, S511, S534, S535, S536, S563, S565, S789
Lachkar Hassan, S199
Lagdali Nawal, S394, S597, S600, S781, S793, S796, S800, S801, S825, S827
Lagdali Nawal, S794
Laghdali Nawal, S480
Lahcene Mustapha, S206
Laila Amrani, S629, S631
Laila Chbani, S144
Laila Errguig, S769
Laio Magno, S490
Lajouad Sanae, S600, S800, S801, S825, S827
Lalit Kumar, S807
Lamarti Ferdaouss, S796
Lamia Ben Yaghlen, S575
Lamine Hamzaoui, S613, S620, S646, S647
Lamine Hamzaoui, S550, S566, S610
Lara S. Carvalho, S628
Larisa Zhuravlyova, S456
Laugier Rene, S607
Laura De Magistris, S385
Laura Hickmott, S448, S450
Laura Huiban, S425, S426, S470
Laura Iliescu, S759, S787
Laura Marelli, S349
Laura Rovira, S214
Laura Savu, S579
Lavleen Singh, S803
Lawrence Brandt, S612, S614, S782, S819
Lawrence Meliga, S636
Layli Eslami, S544
Leblanc Sarah, S607, S829
Leila Mouelhi, S371, S641
Leila Safer, S177, S178, S179, S180, S181, S198, S564, S670
Lein-Ray Mo, S161
Leonid Lazebnik, S207
Letitia Tugui, S759, S787
Levent Doğanay, S874
Levent Erdem, S874
Leyla Tatar, S344, S630
Liana Mondlane, S287
Libor Janousek, S847
Ligia Kerr, S490
Liliana Gheorghe, S759, S787
Liliana Santos, S718
Lillian Barry, S295
Lina Maria Leiva, S602
Linda Bébarová, S281
Lin Fan, S670
Ling Zhang, S583
Lisangela Oliveira, S490
Liting Xi, S679
Liu Louis, S813
Liviu Pop, S579
Ljubica Jovandic, S530
Ljupcho Dameski, S497
Loai Kamel, S674
Lorenzo Camellini, S137
Louis Tapper, S449
Louly Hady, S530
Lounes Fadila, S206
Lubna Kamani, S628, S631
Lubomír Starý, S282
Luca Elli, S385
Luc Colemont, S719
Lucilia Lovane, S287
Ludmila Palgova, S300
Luisa Jamisse, S287
Luísa Martins Figueiredo, S717, S718, S723
Luis Gerardo Vargas, S330, S366
Luis Jasmins, S606, S812, S815
Luis Tome, S728
Lukas Bajer, S320, S342, S487
Lukman O. Abdulkareem, S636, S397
Luoyujun Yujun, S713
Lupușoru Raluca, S715, S752
Luyi Chen, S683
Luzmira Dimande, S287
Luzmira Mutambe Dimande, S188

**M**

Maamouri Nadia, S630, S635, S639, S641
Macit Gülten, S882
Madalina Topan, S753
Madalinee Eternity Labio, S286
M Adam Ali, S449
Madhusudan Saha, S410, S463
Madl Christian, S526
Magdy El-serafy, S250
Mahdi Bouassida, S550
Mahdis Vakili, S209
Mahdis Yaghobi, S334
Mahendra Jayaraj, S380
Mahendra Singh Rajput, S806
Mahesh Patil, S555, S558, S598, S824, S826, S839, S887, S888, S889
Mahmood Moosazadeh, S411
Mahmoodreza Khoonsari, S789
Mahmut Yüksel, S832, S866
Mahnoor Inamullah, S220, S248
Mahrukh Ali, S786
Mahshid Naser, S693
Mahyar Nourian, S201
Maia Kherkehulidze, S319

Maimunah Ummi, S475
Ma Isabel Martín-fontelles, S820
Maja Sremac, S392
Majbar Mohammed Anass, S648
Makki Fayadh, S673, S674, S675
Makki H. Fayadh, S672
Maksim Evseev, S200
Malay Sharma, S555, S558, S598, S826, S839, S840, S844, S887, S888, S889
Mamatha Vishwanatha Shetty, S458
Mamun Al Mahtab, S162, S777
Mamun Al Mahtab Mahtab, S532
Mamunur Rashid, S463
Manal Cherkaoui, S506, S511
Manal Cherkaoui Malki, S834
Manal Hamdy El-sayed, S250
Manal Mahmoudi, S404, S477, S568, S607, S767
Manal Mahmoudi, S769
Manarbek Saken, S168
Manisha Bais Thakur, S690, S691, S703
Manish Kumar, S538
Manjri Manjri, S580
Manoj K Sahu, S162
Mansour Bahardoust, S315, S688
Mansur Femi Mohammed, S379
Manuela Ciocoiu, S322
Manuela Coelho, S842
Manuel Cuño, S581
Manuel Desco, S581
Manzoor Ahmad Wani, S730
Manzoor Wani, S754, S755
Marcela Guerendiain, S288
Marcela Mejía Arango, S403
Marcia Cruz-Correa, S308
Marc Julius Hernandez Navarro, S728
Marc Julius Navarro, S681
Marco Silva, S150, S747, S774, S833, S835
Marek Benes, S681
Marek Kollar, S216
Mare Ruxandra, S382
Margarida Gonçalves, S841
Margarida Marques, S702, S703, S734
Maria Amelia Veras, S490
Maria Ana Rafael, S717, S718, S723
Maria Andrea Vergara, S286
Maria Baptista, S413
Mariacristina Federico, S719
Maria Eduardo Figueira, S146
Maria Honolina Gomez, S809
Maria Kadi, S348
Maria Klimova, S404
Maria Lahlali, S144, S214, S247, S249, S508, S512, S711, S765, S766, S797
Maria Livzan, S232, S279
María Luisa Soto-Montenegro, S581
Mariam El Khayari, S144
Mariana Nuno Costa, S719, S723
Marianne Linley Sy-janairo, S365
María Paula Mendive Dubourdieu, S288
Mariia Ovsepian, S264
Marijana Jankovic, S256
Marina Mazanko, S305
Marina Premuzic, S392
Marina Shapina, S389
Mario Boon, S719
Mariya Petkova, S247
Marjan Mokhtare, S302, S315, S688
Marjorie Walker, S385
Mark Drew Crosland Guimarães, S490
Marko Lugonja, S412
Mark Swain, S846, S847
Mark Topazian, S779
Maroua Ben Abbes, S566
Maroua Saidi Idrissi, S534
Marsela Sina, S245, S328, S355, S357, S421, S501, S624
Marta Casquero-Veiga, S581
Marta Castro, S820
Marta Patita, S700
Marta Silva, S747
Marta Valero, S820
Martin Buckley, S295, S296
Martin Chin, S328
Martin Stašek, S281, S282
Marwa Ghribi, S564, S575
Maryam Alavi, S698, S699
Maryam Eslami, S363
Maryam Jameh Shorani, S692
Maryam Moeini, S233
Maryam Rafieemanesh, S688
Maryam Rayatpisheh, S803
Maryam Sharafkhah, S544, S699, S803
Mary Duguru, S338
Maryeme Kadiri, S491, S501, S505, S506
Mary George, S186, S190, S369, S737, S744
Mary Lucey, S295
Maryna Kryvtsova, S362
Marzhan Zhanasbayeva, S417
Marzieh Hajibaba, S351
Marzieh Malek, S803
Masaaki Watanabe, S234
Masaki Wakasugi, S466
Masanori Tsujie, S466
Masaru Kubokawa, S151
Masayasu Aikawa, S220
Mashiko Setshedi, S292
Mashood Ali, S513, S623, S642, S645
Mashood Mashood Ali, S633
Masood Karim, S830
Masoud M Malekzadeh, S245
Masoud Mohammad Malekzadeh, S693
Masoudreza Sohrabi, S218, S351, S735
Masoud Reza Sohrabi, S789
Masoud Sotoudeh, S560
Mas Sarkar, S174
Matthew Bojuwoye, S724
Matthew Olumuyiwa Bojuwoye, S336
Matt Johnson, S385
Maurizio Cavina, S137
Mayank Mehrotra, S587
Mazilu Bogdan, S377
Mazine Khalid, S626, S647
Mbiakop Mbakop Yvie Axelle, S227
Mb Rahman, S174
Md Fazal Karim, S162
Md.khalilur Rahman Rahman, S532
Md Masudur Rahman Khan, S410
Mechhor Salma, S463
Medical Trust Hospital Kochi, S714
Megha Meshram, S601
Meghana Enumula, S715
Mehdei Saberifirozi, S553
Mehdi Abdelwahed, S177, S178, S179, S180, S181, S670
Mehdi Jafari, S699
Mehdi Nikkhah, S789
Mehmed Kürşad Türkdoğan, S817
Mehmet Asil, S238
Mehmet Bektaş, S479, S628, S631, S633
Mehmet Bektaş, S603
Mehmet Cindoruk, S289
Mehmet Çoban, S414, S416, S874
Mehmet Giray Sönmez, S885, S886
Mehmet Gökhan Gönenli, S418
Mehmet Haberal, S857
Mehmet Önder Ekmen, S269
Mehmet Sedat Durmaz, S870
Mehmet Teomete, S383
Mehmet Uyar, S870
Mehran Karimi, S205
Mehregan Ebrahimi, S695
Mehrnaz Morvaridi, S200, S202
Mehul Lamba, S385
Mei-hui Wang, S829, S845
Mei-hui Wang Hung-man Yu, S826
Mei-zhu Hong, S760
Mejda Zakhama, S177, S178, S179, S180, S181, S564, S670

Melike Ruşen Metin, S667
Melissa Jennings, S779
Melissa Parker, S283, S293
Meltem N. Ceyhan Bilgici, S377
Meltem Uğraş, S528
Melvi Cossio Rocha, S189
Menekşe Çaptuğ, S465
Meral Akdoğan, S546, S866
Meriche Hacene, S562, S566, S573, S580
Meriem Bakkar, S629, S631
Meriem Sabbah, S496
Merve Başar, S639
Meryem Belghiti Alaoui, S629, S631
Meryem El Jihad, S585
Mesut Akarsu, S486
Mesut Gümüşsoy, S479, S628, S631, S633, S830
Mesut Sezik, S874
Mete Akın, S291, S778
Metin Başaranoğlu, S663, S664
Meysam Abolmaali, S351
Mf Rahman, S174
Mian Shah Yousaf, S705, S740, S786
Mian Shah Yousaf,
Michael Larson, S380
Michael Marsh, S385
Michael Samy, S636, S837, S844
Michella Loforte, S287
Michiaki Kubo, S141
Miguel Villacorta, S423, S528
Mihaela Calita, S831
Mike Okorie, S338
Milos Lukic, S575, S642
Miltiadis Giannarakis, S361
Mina Hojat Ansari, S695
Mina Momeni, S278
Mine Balasar, S238
Mine Güllüoğlu, S879
Min Fu, S760
Ming-Jong Bair, S161
Ming-Shiang Wu, S161
Ming-yao Chen, S332, S523
Ming-zhe Tay, S332, S523
Ming Zhong, S219
Minhao Yu, S219
Min Kyu Jung, S553
Mirabela-madalina Topan, S482, S483, S792
Mircea Diculescu, S759, S787
Mircea Manuc, S759, S787
Mirela Danila, S482, S483, S539, S715, S753, S792, S795, S836
Mirela Frandes, S753
Mirela Tomescu, S841
Mislav Jelakovic, S392
Mitko Miloshevski, S549
Miyoko Sakurai, S215
Mj Alam, S174
Mj Uddin, S174
M. Namidru, S862
M. Namiduru, S863
Moamen Fawzy, S204
Moga Tudor Voicu, S753
Mohamad Farid, S354
Mohamadreza Mahjoub Jalali, S388
Mohamed Abu Hamaira, S611
Mohamed Adam Ali, S436, S443
Mohamed Alboraie, S209, S250
Mohamed Ali, S420
Mohamed Amine Said, S193
Mohamed Borahma, S404, S406, S441, S477, S547, S568, S607, S608, S627, S632, S634, S767, S769, S771, S772, S785
Mohamed Borahma, S599, S769, S770
Mohamed Bourahma, S824
Mohamed El Kassas, S250
Mohamed Emara, S209
Mohamed Hassany, S250
Mohamed Hedi Doggui, S575
Mohamed Hichem Loghmeri, S177, S178, S179, S180, S181, S670
Mohamed Karim Temani, S550
Mohamed Karim Temani Amal Khsiba Moufida Mahmoudi Mouna Medhioub Houda Belfekih, S610
Mohamed Kettet, S564
Mohamed Mousadek Azzouz, S613, S620, S646, S647
Mohamed Moussedek Azzouz, S566
Mohamed Msaddek Azzouz, S550, S610
Mohamed Tahiri, S507, S514, S515, S585
Mohamed Tahiri Joutei, S378
Mohamed Tahiri Joutei Hassani, S348, S401, S402, S440, S531
Mohamed Zakarya, S259, S260
Mohammad Ali Khan, S464
Mohammad Derakhshan, S385
Mohammad Faramarzi, S209
Mohammad Fathalipour, S388
Mohammad Hassan Rouzegari, S553
Mohammad Hassan Somi, S693
Mohammad Hossein Somi, S217
Mohammadi Mohammed, S199
Mohammad Jafar Farahvash, S302
Mohammad Nabil Fadhil Bin Hairodin, S807
Mohammad Naymul Hasan, S682, S746
Mohammad Reza Alami2, S478, S751, S695
Mohammadreza Ghadir, S262, S263, S264
Mohammad Reza Pahlevan Sabbagh, S302
Mohammad Reza Zali, S198, S199, S678
Mohammad Rostami-nejad, S198, S199, S385
Mohammad Rostami-Nejad, S678
Mohammad Umar, S257, S303, S306
Mohammad Valizadeh Toosi, S574
Mohammad Yaghoobi, S373
Mohammed Abkari, S508, S512
Mohammed Acharki, S461, S555, S560
Mohammed Borahma, S413, S414, S534, S781
Mohammed Elabkari, S214, S765, S766, S797
Mohammed El Abkari, S144, S247, S249, S711
Mohammed Elabkari, S766
Mohammed Ichou, S653
Mohanned Omer, S783, S828
Mohd Harun Or Rashid Rashid Mohammad Mahbubur Rahman Khan Khan, S532
Mohsen Masoodi, S315
Mohsen Norouzinia, S201
Mohsin Ali, S467
Mohsine Raouf, S648
Mona Boudabous, S476
Mona Soheilian Khorzoghi, S678
Mónica Miegimolle, S298
Monika Cahova, S677
Monika Scuron, S283, S293
Monzur Ahmed, S622
Moon Seok Choi, S384
Moon Sung Lee, S184, S274, S275
Mosleh Uddin Shahed, S694
Motahareh Kheradmand, S411
Mouelhi Leila, S485
Moufida Mahmoudi, S550, S566, S613, S620, S646, S647
Mouna Medhioub, S550, S566
Mouna Salihoun, S459, S461, S465, S555, S560

Mouna Tamzaourte, S656, S657, S658, S849, S851, S852, S855, S856
Mounia Elyousfi, S214, S765, S766, S797
Mounia El Yousfi, S144, S249, S508, S512, S711
Mounia Elyousfi, S766
Mounia El Yousfi, S247
Mozhgan Shams Seyed Mohsen Dehghani Masood Sepehrimanesh, S207
Mozhgan Zahmatkeshan, S205
Mridula Sharma, S824
M. Sünnetçioğlu, S862, S863
Mualla Biçer Gençbay, S819
Mübin Özercan, S628
Mücahit Doğru, S226
Mudashir Lawal, S336
M Uddin, S174
Müge Yılmaz, S168
Muhammad-aamir Waheed, S358
Muhammad Begawan Bestari, S519
Muhammad Ismail, S188, S287
Muhammad Manko, S379
Muhammad Mobeen Zafar, S798
Muhammad Muhammad Umar, S642, S645
Muhammad Muneeb Hussain, S730
Muhammad Saqlain, S798
Muhammad Umar, S623, S633
Muhammad Usman Ghori, S592, S616
Muhammad Yousuf, S694
Muhammed Bahaddin Durak, S832, S875
Muhammed Okuyucu, S732, S733
Muhammet Yıldırım, S749
Muharrem Keskin, S238
Muhittin Yaprak, S291
Muhsin Kaya, S309
Müjdat Kara, S722
Müjde Soytürk, S158, S486, S484, S649, S750
Mukaddes Tozlu, S781, S832
Mükerrem Safalı, S757
Mükremin Coşkun, S837
Munkhtsetseg Banzragch Yağcı, S168
Murat Alışık, S339
Murat Başaran, S339
Murat Bıyık, S238
Murat İspiroglu, S622, S266, S261
Murat Kantarcıoğlu, S137, S757, S814
Murat Karakoç, S758
Murat Saruç, S405, S488, S82, S874
Murat Şen, S854
Murat Törüner, S343, S344, S537, S603, S810, S861
Murat Tuncer, S880
Musa M. Borodo, S397
Mushtaq Khan, S754, S755
Mustafa Berkeşoğlu, S360
Mustafa Emre Duygulu, S834, S876
Mustafa Emre Kavlak, S368
Mustafa Ergin, S289, S877
Mustafa Hasbahçeci, S160
Mustafa İhsan Uslan, S781, S832
Mustafa Kaplan, S749
Mustafa Karanfil, S837
Mustafa Önel, S878
Mustafa Özdemir, S546, S875
Mustafa Reşat Dabak, S472, S755
Mustafa Tahtacı, S339, S422, S428, S600, S667
Mustafa Yakarışık, S289, S661
Mustafa Yaman, S817, S819
Mustafa Zanyar Akkuzu, S229, S230, S359, S360, S473, S474, S697
Mustafa Zanyar Akkuzu, S242, S360
Mustapha El Bakkali, S769
Mutinta Muchimba, S246
Mykola Spivak, S293, S313, S316, S362
Myriam Ayari, S367, S371, S641
Mysore Nagaraja, S844, S887
Myzafer Kaci, S500

## N

Nabeel Mohamed Shaath, S737
Nabil Ben Chaabane, S177, S178, S179, S180, S181, S198, S670
Nabil Ben Chaaben, S564
Naciye Şemnur Büyükaşık, S877
Nada Azib, S482
Nada Lahmidani, S144, S214, S249, S508, S512, S711, S765, S766, S797
Nada Lahmidani, S247, S766
Nadia Benzzoubeir, S471, S482, S488, S489, S491, S498, S506, S510, S511, S534, S535, S536, S563, S565, S789, S834
Nadia Maamouri, S367
Nadya Mutiara Viryani, S456, S520
Nafiye Urgancı, S237, S238
Nagihan Akkaş, S674
Naile Aşık, S168
Najlae Benjelloun, S534
Nalan Gülşen Ünal, S145, S300, S391
Nam Hoon Kwon, S171
Namig Novruzov, S495
Namrata Singh, S543, S814, S821
Namsrai Renchinsengee, S470
Naohiro Nakamura, S215
Naoki Kawagishi, S696
Naoyuki Yamaguchi, S668
Napoleon Bertrand, S607
Narantsatsralt Jalbuu, S470
Narjes Zaeemzadeh, S208
Naser Ebrahimi Daryani, S209
Nashhood Ali, S513
Nasser Ebrahimi Daryani, S693
Nasser E. Daryani, S141
Natacha Sousa, S841
Natalia Jimenez, S296, S297
Natalia Rodriguez, S214
Nataliia Chereliuk, S258
Nataliia Kuchma, S327
Nataliya Hlutkina, S330, S331
Nataliya Marchenko, S225, S300
Natalya Cherkashchenko, S232
Natalya Ilenkova, S279
Natalya Silivonchik, S542
Natasha Clarke, S205
Natasha Gupta, S803
Natavan Khidirova, S494
Nawal Kabbaj, S459, S461, S465, S555, S560
Nawal Kabbaj, S461
Nawal Lagdali, S404, S406, S413, S414, S441, S477, S534, S568, S607, S608, S627, S632, S634, S767, S769, S771, S772, S785, S824
Nawal Lagdali, S599, S769, S770
Nayab Ahsan, S220, S248
Naymul Hasan, S140, S714
Nazanin Gholinia, S213
Nazar Omelchuk, S332
Nazgol Motamed-gorji, S544
Nazish Butt, S464
N. Baykam, S862, S863
N.C. Öztoprak, S862, S863, S865
N.C. Sarı, S865
N.D. Sarı, S862, S863
Necati Örmeci, S615, S620, S830
Necati Yenice, S269
Necla Demir, S432
Neel Jain, S440
Neil Amba, S809
Nejat Yumuşak, S168
Nelgin Gerenli, S433
Nélia Abreu, S606, S812, S815
Nelly Amaya, S649
Nemteanu Roxana, S376, S377
Nenny Suzanah Bte Sellamat, S807

N. Erben, S862
Nermin Gündüz, S808
Nesliar Eser Kutsal, S383, S419, S490, S493
Nesrin Turhan, S655,, S822
Nevin Oruç, S145
Ngai Moh Law, S337
Nguelefack-mbuyo Pami Elvine, S227
Nguelefack Telesphore Benoit, S227
Nicola Burch, S711
Nicola Fusco, S385
Nicolás Lamanna-Rama, S581
Nicole Gayle, S431
Nicole Panarelli, S612, S782
Nigar Rustemova, S490
Nikhil Chandra Nath, S410
Nikhil Mahajan, S555, S558, S598, S826, S887, S888, S889
Nikhil Mahajan, S824, S839
Nikita Navolokin, S404
Nikola Agbaba, S587
Nilay Danış, S155, S639, S848
Nilgün Işıksaçan, S819
Niloofar Shaddel, S803
Nimet Yılmaz, S268, S271, S299, S318
N. İnce, S861, S862, S863
Nisanur Kaygısız, S637
Nitesh Pratap, S558
Nizar Talaat, S333, S651, S652, S858
Nkurunziza Lambert, S463
Nobukazu Hokamura, S443
Nobutaka Murashima, S244, S335, S400
N.O. Çuvalcı, S861
Nuket Hayıroğlu, S168
Nuno Almeida, S728
Nunzio Carone, S511
Nuray Uslu Kızılkan, S522
Nurcan Ünver, S160
Nurdan Tozun, S488, S490, S493, S540, S621, S624, S625, S821
Nurdan Tözün, S383, S394, S405, S500, S722, S874
Nuretdin Suna, S836
Nurhan Demir, S551
Nurhayat Sevencan, S848
Nurken Abdiyev, S184
Nurten Türkel Küçükmetin, S419, S488, S821
Nurten Türkel Küçükmetin,
Nuru Bayramov, S494
Nusi Iswan Abbas, S475
Nyam David, S338

**O**

Oana Cristina Petrea, S173, S425, S426
Oana Petrea, S470
Obtel Majdouline, S794
O. Günal, S862, S863
Oğuz Kağan Bakkaloğlu, S880
Ojonugwa A. Ameh, S636
O. Karabay, S862, S863
Oksana Lukjancenko, S295
Oksana Shchukina, S389
Olayinka Ezomo, S602
Oleg Babak, S439
Oleg Knyazev, S167, S342, S345, S437, S389
Oleksandr Mukhomor, S313
Olena Kurinna, S258
Olga Berezina, S496
Olga Gaus, S187
Olga Krasko, S323
Olga Ozerova, S573
Olga Rzhavicheva, S312
Olga Vozgoment, S402
Olivera Sekulic, S575, S642
Omar Bahlaoui, S348
Omar Sharif, S322
Ömer Burak Ekinci, S878
Ömer Faruk Mızrak, S817
Ömer Özçağlayan, S226
Ömer Öztürk, S805, S832, S860, S866, S867
Ömer Özütemiz, S145, S300, S391, S731
Ömer Topalak, S486
Ömer Vedat Ünalp, S167
Om Parkash, S474, S740, S786
On Behalf of Intent Investigators, S389
Ondrej Seda, S677
Opeyemi Bamidele, S724
Opeyemi Folorunsho Bamidele, S336
Orges Spahiu, S500
Orhan Özatik, S827
Orhan Sezgin, S229, S230, S316, S359, S360, S473, S474, S697, S880
Orhan Sezgin, S242, S874
Orhan Tarçın, S168
Osama Tashani, S358
Osanyibofu Eugene, S379
Osasumwen Osagie, S602
Osman Dağ, S729, S756
Osman Ersoy, S183, S228, S339, S422, S428, S593, S600, S605, S667, S877
Osman Guelleh Mohamed, S597
Osman Özdoğan, S229, S230, S242, S244, S316, S359, S360, S473, S474, S697
Ouazzani Laaziza, S463, S509, S549, S554, S559, S586, S800
Oukelmoun Mariam, S199
Ouldgougam Rachid, S206
Oussama Kharmach, S547, S608, S627, S632, S634
Ovidiu Fratila, S426
Oxana Kolenchukova, S312
Oxana Semyachkina-glushkovskaya, S404
Oya Uygur Bayramiçli, S472, S755
Öykü Tayfur Yürekli, S183, S228, S605, S877
Ozan Cengiz, S484, S486, S649
Ozan Fatih Sarıkaya, S502
Özcan Erel, S339, S422
Özdal Ersoy, S294, S346, S419, S488, S594, S637, S821
Özgen Işık, S854
Özge Timur, S808
Özgül Sağol, S484, S649
Özgün Ömer Asiller, S615, S620, S830
Özgür Yeniova, S432, S434, S445, S477
Özlem Akdoğan, S805, S832, S866
Özlem Gül Utku, S584, S612, S635, S638, S655
Özlem Özer Çakır, S709, S710
Özlem Yönem, S432, S434, S445, S477
Ozren Kordic, S412

**P**

Pachofszky Thomas, S526
Pantong Davwar, S338
Panu Wetwittayakhlang, S321
Paola Contreras, S429, S659, S660
Paolo Cecinato, S137
Parvin Azar, S218
Parvin Mousavi Ghanavati, S209
Patience Omaiye, S338
Patricia Andrade, S700, S701, S702, S703, S833, S835
Patrícia Andrade, S734
Patricia Anne Prodigalidad, S739
Patricia Belintan, S753
Patricia Lupulescu, S841
Patrick Egbegbedia, S379

Paul Kelly, S246
Paul Simpson, S328
Paul Smith, S283, S293
Pavel Drastich, S320, S342
Pavel Drastich Julius Spicak, S681
Pavel Taimr, S342, S847
Pavel Trunecka, S305, S342, S677
Pavel Wohl, S320
Pavel Zbořil, S282
Payman Adibi, S693
Pedro Antunes, S841
Pedro Cabrita, S842
Pedro Costa-moreira, S150, S708, S734, S747
Pedro Delgado-guillena, S423, S528
Pedro Moutinho, S749
Pedro Moutinho-Ribeiro, S150, S708
Pedro Pereira, S708, S734, S749
Pelin Ergun, S138, S438, S784, S811
Pervane Ahmedova, S339, S877
Petar Svorcan, S256
Peter Macinga, S320, S342, S487, S847
Petr Stirand, S139
Peyman Namdar, S315
Pezhman Alavinejad, S200, S202, S203, S208, S209
Philippe Lehert, S399
Pigi Konida, S372
Pik-eu Jason Chang, S796
Pimsiri Sripongpun, S321
Pinar Çerçi Şamlıoğlu, S791
Ping-yen Wang, S826, S829, S845
Piyapan Prueksapanich, S736
Piyush Somani, S598, S839, S840, S844
Pınar Bulutay, S522
Pınar Kasapoğlu, S819
Pınar Ziyadanoğlu, S654
Plesa Alina, S376, S377
Pn Nath, S174
P N Rao, S162
Poernomo Boedi Setiawan, S578, S656
Poernomo Budi Setiawan, S408, S520
Pooneh Jabbaripour, S217
Popescu Alina, S382, S539, S752, S753
Pouadjeu Manialeu Judith, S227
Pradeepta Shekar Patro, S267
Prakash U. Tahiliani, S816
Prasad Menta Sanjeevaraya, S415, S468, S478, S890
Prasanta Debnath, S211, S743
Prasenjit Das, S385, S806, S807
Prashant Singh, S222
Prassad Modcoicar, S188, S287
Prat Frederic, S607, S829
Pravin Rathi, S211, S743
Prima Bianca Gaffud-chua, S273
Priscilla Abate, S429
Priyanka Jain, S162
Purbayu Herry, S475

**Q**
Qiyi Wang, S165
Qi-zhong Zheng3, S760
Quan Lu, S165

**R**
Rabenandrianina Tahirimalala, S204
Rabia Deniz, S878
Rabia Koşkulu, S817
Rachele Delsordo, S385
Rachel Hui Zhen Sim, S212
Rachel Marie Cruz, S890
Rachid Tanz, S653
Radek Vrba, S281
Radhouene Dabbeche, S371, S641
Radim Janousek, S139
Radoslav Gajanin, S412
Radu Cotrau, S539, S715, S753, S795
Rafael GarcÍa Duperly, S403, S503, S515, S516, S517, S569
Rafael Hernando Pino, S330, S366
Rafet Mete, S226
Rahaoui Anass, S394
Rahariniainasoa Annie, S204
Rahul Talele, S844
Raimunda Hermelinda Maia, S490
Rajan N Patel, S431, S432, S434, S440, S445, S446, S448, S449, S450, S628
Rajan Patel, S419, S420, S436, S442, S443, S447, S799
Rajaonatahiana Davidra, S204
Raja Yogesh Kalamegam, S415, S468, S478, S890
Rajesh Krishnamoorthi, S380
Rajesh Kumar, S745
Rajesh Puri, S555, S768, S802
Rajko Ostojic, S392
Rajneesh Kumar, S354
Rakoto Alson Olivat, S204
Rakotomalala Rivo, S204
Rakotondranosy Miarinivo, S204
Rakotonindrina Francine, S204
Ralph Canda, S419, S445, S446, S447, S449, S799
Raluca Lupusoru, S539
Ramakrishna Kappa, S558
Ramazan Dertli, S238, S595, S837
Ramazan Erdem Er, S628, S631, S633, S830
Ramazan Yolaçan, S238
Ram Chandra Prasad Kammari, S267
Ramesh Satarkar, S272, S704, S707
Randhir Sud, S555, S768, S802
Randy Mercado, S273
Ranjit Kumar Banik, S463
Ranko Lazovic, S398
Raoua Baklouti, S177, S178, S179, S180, S181, S670
Raouf Mohsine, S609, S616, S626, S647
Raquel Abalo, S535, S581, S820
Raquel Gonçalves, S841, S842
Rasamindrakotroka Andry, S204
Rashmi Kapoor, S587
Rasim Eren Cankurtaran, S183, S228, S593, S600, S605
Rathin Gosavi, S328
Raunak Poonawala, S431, S440
Ravishankar Asokkumar, S807
Raziye Turan, S661
Reda Beraida, S638, S640, S644
Reda Berraida, S636, S771, S837, S844, S853, S854, S855
Reem Ezzat, S250
Regina Célia Moreira, S490
Regina Victor, S287
Reina Lim, S354
Renata Fofiu, S539, S836
Renata Tamburic, S530
Renbin Lin, S683
René Aujeský, S281
Resul Kahraman, S763, S780
Revati Kumar, S448, S450
Reza Ali Mohammadpour, S334, S393
Reza Alizadeh Navaei, S411
Reza Homayounfar, S374
Reza Malekzadeh, S141, S284, S544, S692, S693, S698, S699, S803
Reza Pakravan, S315
R. Güner, S862, S863
Rhita Alaoui Mdaghri, S824
Ricardo Boavida Ferreira, S146
Richard Hall, S419, S420, S443, S447, S449, S799
Richard Kozarek, S380
Rida Aslam, S220
Rigers Cama, S419, S420, S436, S447, S449, S799
Rim Benjira, S214, S765, S766, S797
Rinse K. Weersma, S141
Rita Oliveira, S413
Rizwana Abdul Ghani, S798

Rıza Ferit Bernay, S377
Rıza Salper Ökten, S546
R. Karaali, S861, S863
Roberto Gardone Guimarães, S152
Rocio Del Pilar López Panqueva, S403, S503, S515, S517, S569
Rodrigo Liberal, S701, S734
Roger Christopher Gill, S740
Rolando Medina, S329, S602, S726
Romana Rajic, S412
Romano Sassatelli, S137
Romulus Timar, S838
Ronnie Ray, S385
Roongruedee Chaiteerakij, S736
Roqueia Cumbana, S287
Rosa Coelho, S701, S734, S774
Rosa Direito, S146
Rosa Ramalho, S701, S748
Rosa Salani Mota, S490
Rostyslav Bubnov, S293, S313, S316, S362
Rouqueia Cumbana, S188
Roxana Brata, S426
Roxana Maxim, S385
Roxana Nemteanu, S173
Roxana Sirli, S482, S483, S539, S605, S715 S753, S792, S795, S836, S838, S841
Roya Amiri, S256
Roya Dolatkhah, S217
Royes Uddin, S463
Roy Soetikno, S807
Rubal Gupta, S742
Ruhaid Khurram, S440, S448, S450
Rui Gaspar, S150, S700, S701, S702, S703, S734, S833, S835
Ruoh-fang Yen, S826
Rupa Banerjee, S141
Rupert Leong, S176
Ruxandra Mare, S579, S838, S841
Ryan Lennon, S779
Ryan Wanamaker, S372
Rym Ennaifer, S589, S595
Ryohei Kawabata, S466
Ryu Shimada, S215

## S

Saadatu Abdurrahman Sambo, S379
Saadettin Hülagü, S874
Saadiq Moledina, S420, S436, S443, S447, S449, S799
Saad K. Niaz, S671
Saba Fakhrieh Asl, S386
Sabahattin Kaymakoğlu, S453, S878, S879
Sabah Tüzün, S472, S755
Sabarinathan Ramanathan, S415, S468, S478, S890
Sabelo Hlatshwayo, S292
Sabite Kacar, S546, S866
S.A. Coşkuner, S862
Sadegh Massarrat, S553, S560
Sadik Zekaj, S764
Sadık Bilgiç, S615, S620
Sadık Server, S798
Saeedeh Sadat Beheshti Shirazi, S201
Saeed Hamid Ashok K Choudhury, S162
Saeed Hesam, S200
Saeideh Maleki, S363
Saeid Osati, S374
Şafak Kızıltaş, S419, S621, S624, S625
Safa Şenel, S344
Safia Awan, S518, S730
Safia El Aboudi, S851
Sahar Masoudi, S692
Saif Musa, S442, S449
Sait Bağci, S137, S757
Sajith Sebastian, S185, S186, S189, S190, S211
Sajith Sebastian, S369, S370, S744
Sajtith Sbastian, S737
Salah Suwileh, S358
Salihoun Mouna, S501, S505, S506, S530
Salim Awadh, S674
Salim Awadh Sabih, S672, S673, S675
Salim Neşelioğlu, S422
Salma Douihi Touzani, S471, S535
Salma Mechhor, S506, S511, S834
Saltanat Kadyrkulova, S417
Salwa Nechi, S566
Samad Jehangir, S705
Samana Shah, S467, S474
Samaneh Alinaghi, S201
Samaneh Borhani, S411
Samaneh Mohagheghi, S284
Sami Lagha, S193
Samira Hassoune, S766
Samir Grover, S304
Samir Mrabti, S771, S855
Samir Shah, S162
Sam Shahinzadeh, S203
Samy Michael, S638, S640, S644
Sanaa Berrag, S656, S852, S855, S856
Sanaa Lajouad, S770, S824
Sanam Hariri, S544, S698, S699
Sanaz Gonoodi, S375
Sanaz Taherpour, S200
Sandeep Gopal, S430, S580
Sandeep Laumas, S778
Sandie Thomson, S292
Sandra Gallego, S298
Sandra Martins, S842
Sandra Milena Rojas Molina, S329, S330, S366, S602, S726
Sang-heum Park, S451
Sang-woo Cha, S451
Sanjay Chandnani, S743
Sanjay Mandal, S776
Sanjeev Sachdeva, S537
Santosh Mittal, S817
Sara Abdelhakam, S250
Sara Abouelhak, S401, S402, S440, S531
Sara Dorosti, S386
Sara Farahvash, S302
Sara Franco, S413
Sara Gha, S461
Sara Ghani, S459, S461, S465, S498, S555, S560, S789
Sarah Christie, S446
Sarah Kahn, S260
Sarah Liptrot, S385
Sara Jamal, S159, S636, S638, S640, S644, S653, S656, S657, S658, S837, S844, S849, S851, S852, S853, S854, S855, S856
Sara Jamal,
Sara Sentissi, S771
Sarra Boukhris, S198
Sarthak Atri, S887, S888, S889
Sasi Kiran N.O.A, S685
Sathiamoorthy Suriyanarayanan, S415, S468, S478, S890
Satish Warrier, S328
Satoshi Abiko, S696
Satyamoorthy Kapaettu, S458
Saubhik Ghosh, S776
Sauid Ishaq, S385
Savaş Cumali Efe, S269
Sawangpong Jandee, S321
Sayed Jalaladin Nagshbandi, S245
Sayyahfar Shirin, S351
S Banu, S174
S. Barut, S862, S863
Schlioma Zaterka, S356, S357
Seckin Öztürk, S814
Seda Karslı, S878
Sedat Boyacıoğlu, S857

Seda Tezcan Ülger, S880
Şefika Ayar, S729, S756
Selçuk Dişibeyaz, S435, S888
Selim Demirci, S182
Selim Sevim, S604
Selin Çakmak Demir, S879
Selma Bozcan, S551, S880
Selma Çoban, S294
Selma Demirbaş Yüceldi, S289
Sema Terkenli, S869
Semih Özyurt, S722
Sencan Acar, S832
Senem Memmedova, S494
Sepideh Nikfam, S803
Serafettin Yazar, S368
Serap Özgül, S725
Seray Akçalar, S615, S620
Serdar Aslan, S368
Sergei Litvinovich, S197
Sergey Golubev, S323
Sergey Morozov, S175, S805
Sergey Skridlevskiy, S573, S625
Serhan Erayman, S622
Serhat Bor, S138, S155, S399, S438, S502, S533, S784, S811
Şerife Çoşkun, S193
Serkan Calp, S787
Serkan Doğan, S881
Serkan Duman, S343, S344, S457, S460, S628, S630, S631, S725, S810, S830, S840, S861
Serkan Yaraş, S229, S230, S242, S244, S316, S359, S360, S473, S474, S697, S880
Serpil Taşdelen, S814
Serpil Yanbakan, S814
Serraj Ilham, S501, S530
S. Esen, S862, S865
Sethu Babu, S558
Setiawan Poernomo Budi, S475
Seungok Lee, S285
Seung-woo Lee, S242, S582
Seung Woon Paik, S384
Sevcan Tuğ Bozdoğan, S818
Sevgi Kalkanlı Taş, S780
Sevin Demir, S755
Şevket Arslan, S869
Şeyda Seferoğlu, S881
Seyed Ali Malekhosseini, S207
Seyed Ali Mard, S200, S208
Seyed Alireza Taghavi, S693
Seyede Fateme Sanayifar, S393
Seyed Jalal Hashemi, S200, S209
Seyed Moayed Alavian, S363
Seyed Mohammad Valizadeh Toosi, S334, S352, S375, S393
Seyed Saeid Sarkeshikian, S262, S263, S264
Seyhun Solakoğlu, S160
Şeyma Çehri, S591
Seymur Aslanov, S391
Sezgi Kıpçak, S138, S438, S533, S784, S811
Sezgin Bilgin, S218
Sfrijan Cristina, S377
Shahab Abid, S467, S518, S706, S730
Shahab Haghollahi, S445
Shahid Rasool, S162, S462, S481, S764
Shahin Merat, S256, S698, S699
Shahriyar Ghazanfar, S671
Shahwar Kazmi, S745
Shah Yousaf, S474
Shameel Shafqat, S740
Sharat Putta, S558
Shashank Ramakrishnan, S432
Shaweihong Weihong, S713
Shayan Irani, S380, S889
Shehu Abdullahi, S379
Sheida Aghili, S351
Sheila Machatine, S188, S287
Shema Ayadi, S371, S641
Sheng-tsai Lin, S332, S523
Shenoy KT, S850
Sherida Edding, S739
Sherly Mathews, S385
Sherrie Isabel Querubin De Ocampo, S728
Shettima Kagu Mustapha, S379
Shifteh Abedian, S141
Shigeki Osada, S151
Shigeki Yamaguchi, S220
Shilpa Gupta, S742
Shilpa Satarkar, S272
Shin Hee Lee, S582
Shinichi Sakuramoto, S220
Shinya Kodashima, S215
Shiraaz Gabriel, S655
Shivaram Prasad Singh, S340
Shobna Bhatia, S601
Sholpan Izmagambetova, S184
Showkat Zargar, S730, S754, S755
Shubham Jain, S211
Shujie Chen, S683
Shwikar Ahmed, S204
Shyam Prakash, S807
Siamak Baghaee, S209
Siarhei Litvinovich, S330, S331
Siavosh Nasseri-moghaddam, S480, S803
Sibel Erdamar Çetin, S500
Siddartha Guru, S248
Sidi Adil Ibrahimi, S144, S214, S249, S711, S765, S766, S797
Sidi Adil Ibrahimi, S247, S766
Siew C. Ng, S141
Silvia Lettieri, S189
Silviu Nistorescu, S838
Simay Kara, S346, S594
Simona Bataga, S539
Simon Cross, S385
Simone Grillo, S137
Simon Travis, S711
Sinan Arı, S805, S832
Sinan Binboğa, S773
Sinan Sarı, S237
Sinem Öktem Okullu, S394
Şirli Roxana, S382, S752, S753
Siti Aminah Abdurachman, S519
Sjamsul Arief, S485
S. Kaya, S862, S863, S865
Skerdi Prifti, S245, S328, S355, S357, S421, S501, S624
S Köse, S861, S863
S K Sarin, S162
Slobodan Sreckovic, S256
S. Ocak, S861
So Dam Lee, S223
Sofia Hanif, S462, S764
Sofia Poliakova, S197
Sofia Silva Mendes, S841, S842
Sofia Zoukal, S766
Soheil Hassanipour, S388
Soheil Sabet, S798
Sohrab Aghabeigi, S688
Somayeh Eslaminasab, S205
Somayeh Sheidaie, S393
Sona Frankova, S305, S487
Soner Akkurt, S819
Soner Önem, S484,S486, S649
Sonoe Yoshida, S696
Soohyun Yang, S226
Soo Jung Park, S666
Soo Yeon Choi, S243
Sosa-valencia Leonardo, S191, S885
Souad Aboudrar, S769
Souadka Amine, S609, S616, S626, S647, S648
Soua Sabrine, S630, S635, S639, S641
Soudine Farida, S509
Souhayla Belabess, S536
Souichirou Oda, S696

Souidine Farida, S463, S549, S554, S559
Soukaina Zertiti, S770, S772, S785
Soumaya Nsibi, S589, S595
Speranta Iacob, S759, S787
Sporea Ioan, S382, S752
Sporea Sporea, S753
Sravanthi Parasa, S523
Srdjan Markovic, S256
Sridhar Sundaram, S601
Srikanta Kumar Sahoo, S267
S S Tan14, S162
Stanislav Rybchynskyi, S195, S196
Stefan Bojovic, S575, S642
Stefan Chiriac, S173, S425, S470
Stefano Guandalini, S385
Stefan Rehdin, S297
Stephen Bell, S328
Stephen Wong, S809
Stevan Trbojevic, S412, S530, S587
S. Tosun, S863, S865
Stuart Bloom, S276
Sudabeh Alatab, S149, S245, S284, S693
Sue Kells, S205
Sugihartono Titong, S475, S540
Süha Göksel, S405, S488, S540
Sujata May Mansukhani, S325
Sujit Nair, S211, S743
Sukanta Chandra Das, S140, S682, S714, S746
Suk-Kyun Yang, S141
Şule Namli Koç, S368, S783, S788
Süleyman Ahbab, S654
Süleyman Bakdik, S885, S886
Süleyman Demiryaş, S584
Süleyman Dolu, S484, S486, S649
Süleyman Yıldırım, S551, S880
Sulmaz Ghahramani, S472
Sumeet Pandey, S711
Sümeyye Fatma Özer, S837
Sümeyye Kılıç, S817
Sumit Bhatia, S802
Suna Saygılı, S827
Suna Yapalı, S419, S488, S821
Sunghwan Hong, S431, S434
Sung Ill Jang, S171, S172
Sung Jae Shin, S194, S224
Sungsoon Fang, S172
Sun Gyo Lim, S224, S359
Sunil K Mathai, S190, S369, S370, S744
Sunil Mathai, S185, S186
Sunil Reddy, S555, S598, S826, S887, S888, S889
Sunil Reddy, S824, S839
Sunil Taneja, S162
Sunny H. Wong, S141
Supatsri Sethasine, S280
Suprabha Suresh Nayak, S458
Suprabhat Giri, S601
Suraj Bhagat, S555
Suraj Pathak, S436, S443, S447
Surender Kumar Yachha, S427
Suresh Shenoy, S430
Suryati Mokhtar, S724
Susana Lopes, S150, S700, S701, S703, S708, S734, S747, S833, S835
Su Yeon Lee, S172
Su Yun Lee, S171
Suzana Manxhuka-Kerliu, S764
Suzanne Van Sommeren, S141
Svetlana Turcan, S532
Swasntröm Lee, S885
Syakirah Samsudin, S724
Syed M. Aqib, S662
Syed Shahzad Hasan, S592, S616
Syrine Bellakhal, S575

**T**

Tae Hoon Lee, S451
Tae Hyung Kim, S308
Tae Il Kim, S666
Tae Oh Kim, S308
Taghi Amiriani, S698, S699
Tahiri Mohamed, S550
Tahir Mahamat-saleh, S550
Taieb Jomni, S575
Taiji Tohyama, S244, S335, S400
Takamasa Matsumoto, S244, S335, S400
Takatsugu Yamamoto, S215
Takayoshi Murakami, S244, S335, S400
Takeshi Tsuchiya, S215
Taku Honda, S215
Takuto Miyagishima, S696
Takuya Nishina, S244, S335, S400
Talal Bhatti, S509, S633
Talal Khurhid Bhatti, S623
Talal Khurshid, S642, S645
Talal Khurshid Bhatti, S513
Talat Ayyıldız, S882, S834, S876, S882
Talha Qureshi, S464
Tamara Sabbi, S260
Tamuro Hayama, S215
Tanja Glamocanin, S530
Taoufik Dakka, S769
Tarang Taghvaei, S373, S375
Tarik Addajou, S656, S856
Tarik Gharbi, S471, S482, S498, S534, S535, S563, S565, S789
Tarkan Karakan, S289
Tarso Magno Leite Ribeiro, S152
Tarverdi Rzayev, S494
Tatia Khachidze, S669
Tatiana Alfonso, S189
Tatiana Kryukova, S619
Tatsiana Rayeuneva, S210
Tatyana Krolevets, S232
Tatyana Shkurko, S342
Tayyaba Ali, S257
Tayyab Saeed Akhter, S257, S303, S306
Tei Mitsuyoshi, S466
Temitope Oke, S757
Teng-Yu Lee, S161
Teodora Manuc, S759, S787
Teodora Trbojevic, S587
Teresa Cabeças, S413
Teresa Pereira, S413
Tetiana Alianova, S157
Tetiana Radionova, S581
Tevfik Avcı, S836
Tevfik Küçükkartallar, S886
Tevriz Dilan Demir, S394
Thaphat Songlin, S280
Thelma BK, S141
Theodora Mwatsu, S511
Thomas Leser, S297
Thuy Le, S372
Tiago Bilhim, S717
Tiago Leal, S841, S842
Tiandaza Odilon, S204
Tiar Masykuroh Pratamawati, S317
Tiberia Ilias, S426
Tiffany Tang, S354
Timothy Bren Phoa, S542
Timuola Fakoya, S757
Tin Tin Hlaing, S332, S523
Tissa Octavira Permatasari, S317
Titong Sugihartono, S408, S467, S520, S578, S656
Tolga Yıldırım, S729, S756
Tomas Hucl, S139, S487, S847
Tongluk Teerasarntipan, S736
Tora Sadigova, S381
Toshihiko Okuyama, S400
Toshiyuki Abe, S151
Trad Nouha, S630, S635, S639, S641

Tri Asih Imroati, S520
Trifan Anca, S376, S377
Trini Fragoso Arbelo, S395, S396
Tseveendari Otgon, S252
Tsitsi Parulava, S319
Tsuyoshi Terada, S244, S335, S400
Tuba Ergene, S788
Tudor Cuciureanu, S470
Tudor Voicu Moga, S539, S715, S795
Tuğba Erürker Öztürk, S874
Tuğba İlkem Kurtoğlu Özçağlayan, S226
Tuğba Kotil, S160
Tuğçe Eskazan, S551, S880
Tugrul Purnak, S729, S756
Tülay Erkan, S237
Tuncer Temel, S888
Türkan Akbayrak, S725
Turkish Ibd Study Group, S237
Tushar Vaishnav, S695
T. Yamazhan, S861, S862, S863, S865

**U**

U. Aslıhan, S862
Ubaldhos Jeyaraj, S733
Üçler Kisa, S584, S612, S635
Ufuk Avcıoğlu, S732, S733
Ufuk Kutluana, S548
Uğur Önal, S684
Ujjal Poddar, S427
Uladzimir Pyrachkin, S330, S331
Ulfa Kholili, S408, S520, S578, S656
Ülkü Dağlı, S857
Ulugbek Kayumov, S325
Ulus Salih Akarca, S731
Uma Iyer, S695
Uma Rani, S742
Umar Muhammad, S513
Umberto Volta, S385
Umid Kumar Shrestha, S802, S823
Umit İnce, S394
Ummi Maimunah, S408, S520, S578, S656
Umutcan Türk, S791
Üstün Ezer, S814
Uswatun Hasanah, S317
Uttayan Chakrabarti, S690, S691, S703
Uysaler Aslan, S591

**V**

Vadim Akhmedov, S187
Vadim Karev, S225, S300
Vagif Shadlinski, S202
Vahid Chaleshi, S201
Vahide Betul Canitez, S870
Vahid Hosseini, S375
Vaibhav Mishra, S794
Valentina Vorobiova, S175
Valerio Cigaina, S804
Valery Sovalkin, S279
Vanessa Gómez-Rangel, S581
Varuzhan Sarkisyan, S175
Vasiliki Vasilakopoulou, S372
Vasily Isakov, S170, S175, S216, S805
Vedat Goral, S663
Vedat Kılıç, S546
Vedrenne Bruno6, S607
Veronica Iori, S137
Vesna Kovacevic, S412
Vibeke Westphal, S295, S296
Vibor Sesa, S392
Victor Fernando Yep-gamarra, S423, S524, S528, S649
Victoria Potter, S711
Victor Lau-torres, S524
Vijai Lakshmi, S794
Vijay Kumar Upadhyay, S427
Vikas Sachdev, S222, S814, S821
Vikram Singh, S614, S819
Viktor Alargcof, S247
Viktorija Chaloska Ivanova, S549
Viktor Veselov, S573, S625
Vincenzo Villanacci, S385
Vineet Ahuja, S222, S543, S806, S807, S814, S821
Vipin Gupta, S543
Viraj Kariyawasam, S176
Virender Katyal, S580
Virgilio Banez, S325, S521, S522, S556
Virginia Lopez, S214
Vishnubhatla Sreenivas, S807
Vitor Arantes, S152
Vítor Pereira, S150, S606, S812, S815
Viveksandeep Thoguluva Chandrasekar, S380, S415, S468, S478, S890
Vlad Florin Iovanescu, S831
Vladimir Borzan, S493, S499
Vladimir Chikunov, S279
Vladimir Pilipenko, S170, S216
Vladimir Pyrochkin, S197
Vladislav Raclavský, S282
Vladislav Tsukanov, S309, S310, S311, S312
Vladislav Yakovenko, S254
Vlasta Oršić Frič, S493, S499
Volkan Gökbulut, S822, S859, S860, S866, S867, S875

**W**

Waad Farhat, S193
Wafaa Badre, S348, S378, S401, S402, S440, S507, S514, S515, S531, S585
Wafaa Elakel, S250
Wafaa Hliwa, S348, S378, S401, S402, S440, S507, S514, S515, S531, S585
Wafa Ben Mansour, S564
Wahid Doss, S250
Wajiha Mehtab, S543, S814, S821
Walid El Ouardi, S599, S607
Wan Cheng Chow, S354
Wasim Jafri, S162, S745
Wei Chen, S812
Weihong Sha, S145, S154, S165, S286, S365, S785
Weijie Zhou, S145
Wei-ming Chen, S760
Wei Zhao, S670
Wenbin Gong, S148, S793
Wendy Schaufert, S846, S847
Wen-Hui Ku, S161
Wenqing Yao, S283, S293
Wided Bouhlel, S177, S178, S179, S180, S181, S564, S670
Widodo Budi, S475, S540
Won Ho Kim, S141, S666
Wonhyeong Park, S226
Wonseok Kang, S384

**X**

Xiaoming Ma, S679
Xiaoyin Bai, S253
Ximena Rodriguez, S214
Xin Fu, S171
Xinhua Chen, S222
Xuejun Sun, S670

**Y**

Yafanita Izzati Nurina, S467
Yahya Büyükaşık, S729, S756
Yakup Alsancak, S837
Yakup Duran, S486
Yamna Jadoon, S705
Yana Boyanova, S247
Yana Nikiforova, S212
Yao-Chun Hsu, S161
Yao-ming Wu, S826
Yasaman Taheri, S209
Yasemin Balaban, S725, S729, S756
Yasemin Ecem Temel, S346, S821
Yasemin Özin Özderin, S805
Yasemin Tekşen, S827

Yasmine Fetati, S476
Yasutaka Kudou, S244, S335, S400
Yasutsugu Takada, S335
Yavuz Özden, S750
Yerlan Abdirashev, S184
Yi-fang Chang, S236
Yiğit Oğuz Ünal, S156
Ying Hao, S796
Yi Zhao, S253, S812
Y K Chawla, S162
Y.K. Kaya, S861
Yojiro Hashiguchi, S215
Yolanda López-Tofiño, S535, S581
Yonca Yılmaz Ürün, S156
Yong Chan Lee, S223
Yong Eun Park, S308
Yong-han Paik, S384
Yong Tang, S143
Y. Önlen, S862, S863, S865
Yoshimi Fujimoto, S244, S335, S400
Yosra Zaiimi, S371, S641
Young Deok Cho, S451
Young-eun Joo, S221, S223
Younggeon Jin, S778
Youssef Thiyfa, S401
Y. Taşova, S862, S865
Yu Bin Tan, S212
Yücel Üstündağ, S156
Yue Hu, S583
Yuelun Zhang, S812
Yuhui Tang, S583
Yujun Luo, S365
Yukihiro Watanabe, S220
Yukihiro Yoshikawa, S466
Yuki Shiratsuchi, S151
Yulia Embutnieks, S496
Yunki Yau, S176
Yun Nah Lee, S451
Yunus Erdem, S729, S756
Yunus Halil Polat, S183, S593, S600, S605
Yunus Halil Polat, S228, S428
Yun Wang, S154, S686
Yu-Qin He, S171
Yuriy Marakhovskiy, S389
Yuriy Prokopenko, S417
Yury Kucheryavyy, S264
Yusuf Erzin, S551
Yusuf Kayar, S238, S595
Yusuf Serdar Sakin, S502
Yusuf YIlmaz, S525, S857
Yusuke Kimura, S151
Yutaro Onaka, S668
Yu-xin Lai, S332, S523

## Z

Zafer Çırak, S749
Zafer Küçükodacı, S749
Zahra Mohammadi, S698
Zahra Momayez Sanat, S692
Zahra Pourmousa, S208
Zaigham Abbas, S162, S373
Zaim Gashi, S764
Zaimi Yosra, S485
Zainab Ali-eldin, S250
Zanyar Akkuzu, S316
Zarife Kuloğlu, S237
Zarnigar Gumbatova, S402
Zarni Htway, S486
Zeineb Teyeb, S575
Zeka Abbosov, S289
Zeki Karasu, S731
Zeki Soypaçacı, S674
Zeljko Krznaric, S392
Zemmouchi Chahrazed, S206
Zerrin Önal, S237
Zertiti Soukaina, S781, S796
Zeynal Babayev, S684
Zeynep Başak, S465
Zeynep Çatay, S294
Zeynep Ceren Karahan3, S810
Zeynep Ellik, S370, S457, S460, S537, S615, S620, S628, S630, S725, S840
Zeynep Evdirir Tüzün, S882
Zeynep Komesli, S418
Zeynep Melekoğlu Ellik, S343, S344, S604, S631, S810, S830, S861
Zhale Bayani, S218
Zhaleh Dinari, S149
Zhila Torabizadeh, S375
Zhongwen Zheng, S785
Zivka Eri, S587
Zixi Zhang, S154, S670
Zohaib Tariq, S431, S432, S434
Zohra Aijaz Ali, S399
Zohreh Bari, S373, S374, S375, S574
Zohreh Sanaat, S217
Zubin Dev Sharma, S768
Zuhal Mert Altıntaş, S818
Züleyha Erdin, S584, S612
Zuzana Rabekova, S139
Zuzana Vackova, S139, S216