

1ST INTERNATIONAL TRANSPLANT NETWORK CONGRESS

6th National Transplant Coordination Symposium

RIXOS SUNGATE HOTEL, KEMER
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ABSTRACT BOOK



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1st INTERNATIONAL TRANSPLANT NETWORK CONGRESS

ABSTRACT BOOK – Oral Presentations

OP-01 DEEP ANTERIOR LAMELLAR KERATOPLASTY: INDICATIONS AND SURGICAL TECHNIQUES

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Purpose: Deep anterior lamellar keratoplasty (DALK) is a treatment option for patients with diseases of corneal stroma without endothelial involvement. In this study, we aimed to describe visual and clinical outcomes of big-bubble and manual layer-by-layer DALK techniques in different spectrum of corneal diseases.

Material and method: We retrospectively reviewed the records of patients who underwent DALK from August 2016 to August 2018. Data on patients' age, sex, preoperative diagnosis, preoperative and postoperative best-corrected visual acuity (BCVA), intraoperative and postoperative complications were recorded.

Findings: Twenty eyes of 20 patients were included in the study. The mean patient age at surgery was 35.7 ± 17.1 years and the mean follow-up time was 13.6 ± 9 months. Successful DALK with the Anwar big bubble technique was achieved in 14 of 20 (70%) patients. The indications for surgery were keratoconus in 9 patients (64.2%), corneal scar in 4 (28.5%) and stromal corneal dystrophy in 1 (7%). On average, BCVA increased from 1.45 ± 0.70 to 0.63 ± 0.72 logMAR ($p < 0.001$). In 6 patients, manual dissection was done successfully and the indications were as follow; 2 patients (33.3%) with keratoconus and hydrops sequelae, 1 (16.6%) with chemical burn sequela, 1 (16.6%) with desmatocoele, 1 (16.6%) with corneal scar and 1 (16.6%) with stromal corneal dystrophy. The mean BCVA improved from 1.50 ± 0.77 to 0.74 ± 0.40 logMAR ($p < 0.001$). Two of the eyes (10%) experienced graft failure, 1 eye (10%) had postoperative glaucoma and 1 eye (10%) had deep folds.

Conclusion(s): DALK represents a reliable technique for corneal transplantation in different pathological conditions of the cornea and the risk of endothelial rejection can be avoided completely. Although manual dissection is mostly applied in failed big-bubble formation, it may be preferred safely as the first choice in some corneal pathologies such as hydrops sequelae and localized anterior stromal scars.

OP-2 INVESTIGATION OF THE CHANGES IN EYE BANKING AND CORNEAL TRANSPLANTATION IN TURKEY

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Purpose: To investigate the recent developments in corneal tissue procurement and corneal transplantation (CT) in our country and compare to the other countries performing eye bank and cornea transplant service.

Material and method: Turkey's data in this study were obtained from the electronic database of ministry of health of republic of Turkey after official correspondence. In this study, number of eye banks, procured corneas , corneal transplantation, transplant physicians in Turkey were investigated. By conducting a literature, our results were compared to the other countries performing eye banking and cornea transplantation.

Findings: In 2010, the number of eye banks were 14. It has reached to 31 in 2013 and 40 in 2018 by increasing per year. According to 2018 data, totally 283 corneal transplant physicians are on duty in 134 corneal transplant centers. Since eye banks number is increasing, cornea procurement and transplantation rates have been also increased. In 2012, 1913 corneal transplantations were performed in 12 cities and in 2017, 3586 corneal transplantations were performed in 19 cities in Turkey. When the number of corneal procurement was 3031 in 2014, it reached to 3857 in 2017. In addition, 2350 corneas were procured in the first half of 2018. The number of corneal transplantation was 3592 in 2014. It was 3586 in 2017 and it is 2250 according to the first half of 2018. The number of patients waiting for corneal transplantation were 6903 in 2011, 3163 in 2014 and 2350 in 2017. It decreased to 1980 in the first half of 2018. Average waiting time for corneal transplantation is 76 days. In 2012 our CT rate was 25. 10-6 per capita. It is more than the rate of CT in India (22.10-6 per capita) that is one of the three countries performing most of CT in the World according to the study of Gain at all. Our CT rate was more than mean CT rate (10.10-6 per capita) which is obtained from data collected from 148 countries in the World. In the same study, the average waiting period was found as 6.5 (1-24) months.

Conclusion(s): Our country is self-sufficient in transplantation and procurement of cornea and our results are much more better than World averages.

OP-3 EVALUATION OF THE POSTOPERATIVE EFFECT OF TWO DIFFERENT DONOR GRAFT PREPERATION TECHNIQUES FOR DESCMET MEMBRANE ENDOTHELIAL KERATOPLASTY (DMEK) SURGERY

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Purpose: Evaluation of the postoperative effect of two different donor graft preparation techniques for Descemet Membrane Endothelial Keratoplasty (DMEK) surgery was aimed.

Material and method: Thirty eyes of 20 patients (13 male, 7 female patients) for whom DMEK surgery was performed between November 2015 and April 2018 were investigated retrospectively. The patients with Fuchs' endothelial dystrophy or pseudophakic bullous keratopathy were included in the study. For the group 1 patients (14 eyes of 10 patients) partial incision was performed with a modified 9.5 mm donor punch and the edges of the donor were lifted and put back. Then with an 8 mm donor punch the graft was incised again to obtain an 8 mm descemet-endothelial graft. For the group 2 patients (16 eyes of 10 patients), complete incision with an 8 mm donor punch was performed in the donor graft and by lifting the edges of the graft endothelial stripping was performed to obtain an 8 mm descemet-endothelial graft. Endothelial cell density of the corneas preoperatively and at 6th month postoperatively, central corneal thickness and best corrected visual acuity of the patients at 6th month postoperatively were recorded.

Findings: While the mean preoperative endothelial cell density of the group 1 patients was 2684 ± 152 cells/mm², it was 2665 ± 120 cells/mm² in the group 2 patients ($p=0.64$). The ECD of the patients at postoperative 6th month was detected to be 1583 ± 165 cells/mm² and 1536 ± 134 cells/mm² in the group 1 and 2 patients respectively ($p=0.25$). The mean central corneal thickness (CCT) at 6th month was found to be 551 ± 15 μ m in the group 1 and 554 ± 17 μ m in the group 2 patients ($p=0.79$). The mean best corrected visual acuity at 6th month was 0.87 ± 0.1 in the group 1 patients and 0.86 ± 0.1 in the group 2 patients ($p=0.84$).

Conclusion(s): DMEK surgery is increasingly preferred over other endothelial keratoplasty procedures. With the help of this technique, one cornea can be used for transplantation for two patients. No clinical difference was detected between two different graft preparation techniques and both techniques can be utilized safely.

OP-4 THE CLINICAL OUTCOMES COMBINED PENETRATING KERATOPLASTY, CATARACT EXTRACTION AND INTRAOCULAR LENS IMPLANTATION

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Purpose: The aim of this study was to investigate the clinical results of combined penetrating keratoplasty, cataract extraction and intraocular lens implantation (combined procedure).

Material and method: This retrospective study was conducted in 40 patients who underwent combined procedure for various indications between May 2008 and July 2017 and followed up for at least 1 year. Cataract extraction was performed with open sky extracapsular cataract extraction technique. The posterior chamber intraocular lens (IOL) was implanted into the capsular bag or ciliary sulcus. The outcome measures included the best spectacle corrected visual acuity (BSCVA), refractive outcomes, graft survival and complications.

Findings: The mean age of all of the patients was 61.9 ± 12.08 years and the mean follow up time was 51.32 ± 33.42 months. The most common indications for combined procedure were Fuchs endothelial dystrophy (9 eyes, 22.5%), corneal scar (8 eyes, 20%), herpes simplex keratitis (6 eyes, 15%) and corneal stromal dystrophy (5 eyes, 12.5%). The mean BSCVA was 2.57 ± 0.66 logMAR (range, 1.0–3.0) before surgery, 0.93 ± 0.40 logMAR (range, 0.20–2.0) on the first postoperative month, 0.70 ± 0.46 logMAR (range, 0.10–2.0) at the first postoperative year, and 0.80 ± 0.63 logMAR (range, 0.10–3.00) upon last examination. The mean postoperative visual acuity was statistically higher than the mean preoperative visual acuity ($p < 0.001$). During follow-up, graft rejection developed in 9 eyes (22.5%). Five eyes had been successfully treated for rejection reaction and four eyes were required re-grafted. At the end of the follow-up, the corneal graft was clear in 36 (90%) eyes. Posterior capsular rupture developed in two of the eyes and IOL was implanted in the ciliary sulcus. Posterior capsular opacification in 9 eyes (22.5%), glaucoma in 7 eyes (17.5%), epithelial defect in 6 eyes (15%) and endophthalmitis in 1 eye (2.5%) were observed during follow up.

Conclusion(s): The combined procedure is a safe and effective approach to rapidly restore vision in patients with coexisting corneal pathologies and cataracts.

OP-5 THERAPEUTIC KERATOPLASTY FOR SEVERE INFECTIVE KERATITIS WITH CORNEAL MELTING

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Purpose: To evaluate the efficacy, outcomes and complications of Therapeutic Keratoplasty in management of melted and perforated corneas due to severe infections.

Material and method: Ninety two eyes of 90 patients with severe Infective Keratitis, Necrosis and Perforation were studied retrospectively over 4 years with mean follow up of one year. Cultures showed 52 cases of fungal etiology, 18 cases of Staph. aureas, 3 cases of pseudomonas, 3 cases of atypical mycobacteria, 1 case of Acanthameba & 16 cases were negative. All cases had preoperative poor vision ranged from LP to HM. All cases underwent therapeutic penetrating keratoplasty (PKP) with 10.0-11.0mm diameter (limbus to limbus). Excision of all necrotic and infiltrated corneal tissue with a clear safety margin (1mm) was performed. In addition to removing the inflammatory membranes and anterior segment reconstruction. The natural barrier to posterior segment was kept (lens, posterior capsule).

Findings: At the end of the first year, 23 cases (25%) showed visual acuity (VA) > 20/40, 44 cases (47%) showed (VA) > 20/100, 13 cases (14%) showed CF, 10 cases (10%) showed only HM, 2 cases (2%) had NLP. The complications were hypotony in 38 Eyes (41%), glaucoma in 24 eyes (26%), required Cyclophotocoagulation, cataract in 31 eyes (33%) which was removed after 4 months, Recurrence of Infection occurred in 16 eyes (17%), rejection was documented in 22 eyes (23%), retinal detachment in 4 eyes (4.3%), expulsive hemorrhage in 1 eye, endophthalmitis and evisceration in 1 eye, immunogenic uveitis in 1 eye, repeat of PKP in 24 eyes (26%).

Conclusion(s): Therapeutic Keratoplasty is a safe and effective technique and might be the only way to salvage a Severely Infected Cornea, and also to restore Vision despite the anticipated Complications.

OP-6 THE EXPERIENCE OF A CORNEAL TRANSPLANTATION REFERRAL CENTER IN TURKEY: CLINICAL CHARACTERISTICS AND PREFERRED SURGICAL METHODS

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Purpose: Corneal transplantation is the most commonly performed transplantation surgery. The aim of this study was to document indications, clinical characteristics and preferred surgical methods in a referral center.

Material and method: The records of 563 patients who had corneal transplantation surgery between March 2016 and March 2018 were retrospectively studied. Demographic data, emergency status, indications and preferred surgeries were specifically tabulated.

Findings: The mean age of the patients was 47.2 ± 20.9 (1-89) years, 334 patients were male and 219 patients were female. Penetrating keratoplasty (PK) was performed to 336 patients (65%), deep anterior lamellar keratoplasty (DALK) was performed to 107 patients (19%), Descemet's membrane endothelial keratoplasty (DMEK) was performed to 88 patients (15.6%) and Descemet's membrane stripping endothelial keratoplasty (DSAEK) was performed in 2 cases (0.4%). Most of the surgeries were elective (80.5%), 13.1% of the cases were emergency cases and 6.4% were rejection cases. The most common indications for keratoplasty were bullous keratopathy (26.5%), keratoconus (25%), keratitis (15.1%), graft rejection (10.7%), Fuchs' endothelial dystrophy (6.9%) and mechanical trauma (6.9%). DALK was preferred surgery in 61% of the keratoconus cases and 27.5% of stromal dystrophies. DMEK was preferred in 32.9% of the bullous keratopathy cases and 79.5% of Fuchs endothelial dystrophy cases.

Conclusion(s): The lamellar corneal transplantation techniques allow treatment of two patients with one cornea. With the development of modern surgical techniques and increased surgeon experience, these surgeries are more commonly preferred. In this study, DALK surgery was preferred up to 61% of cases and DMEK surgery was preferred up to 79.5% cases in suitable indications.

OP-7 TRANSPLANTATION OF EYE TISSUES: WHAT DO/SHOULD WE KNOW?

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Purpose: Several conditions affecting the eye tissues can cause visual impairment and blindness. Majority of those conditions can be treated by employing eye tissue transplantations (ETT). Considering the fact that number of patients currently waiting for corneal transplantations exceeds 12.7 million worldwide, significance of ETT topic can be better comprehended. Process of transplantation is usually troublesome for both patients and clinicians and one of the main problems in this process is the insufficient number of donors. This problem can be best addressed by increasing public awareness and informative promotion campaigns. Since physicians are the most prominent figures in health sector, starting the public awareness effort with doctors would be a wise decision. In this context, we aim to evaluate the level of knowledge of physicians regarding ETT and create awareness about the topic.

Material and method: Around 2000 medical school graduates who work in different positions at different hospitals from different provinces of Turkey have been invited to participate in an online survey consisting of 12 short answer questions. All the participants were selected from various branches of medical sciences except Ophthalmology. 268 doctors attended the questionnaire. Questions in the survey aimed at determining level of knowledge, attitude and opinion of physicians about ETT. Upon completing the survey, respondents were provided with the correct answers to train them and increase their awareness about the subject.

Findings: Mean age of the attendees was 38,75 years and 60% of them were academicians. Mean duration of work experience of those was 13,47 years. It was determined that sclera and cornea are the best-recognized ETT among others. However, in general, transplantable eye tissues were shown to be known lesser. In fact, 37,3% of participants thought that the whole eye (a.k.a. glob) can be totally transplantable. 57,9% of doctors were aware of massively long corneal transplant waiting list and 82% of them were mildly supportive of donating their corneas.

Conclusion(s): Eye conditions requiring ETT are considerably high to be ignored. However, topic of ETT is so specific even in medical community. This situation is an important obstacle to break down the prejudices and biases. Recognition and support for this kind of transplantations will be a real hope for thousands of patients waiting sight. Thanks to our survey, it was demonstrated that lack of knowledge exists at top of medical community as well. In this context, the questionnaire has achieved to create awareness.

OP-8 GLAUCOMA IN DESCemet MEMBRANE ENDOTHELIAL KERATOPLASTY PATIENTS

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Purpose: To evaluate the existence of glaucoma in Descemet membrane endothelial keratoplasty (DMEK) patients.

Material and method: The twenty nine eyes of 28 consecutive DMEK patients (63% female) with at least 3 months of follow up were evaluated retrospectively. The data of 11 patients who had glaucoma (all were preoperative glaucoma, none of the patients developed new glaucoma following DMEK) was analyzed.

Findings: The mean age of all patients was 62.4 ± 13.2 years and the mean follow up time was 11.8 ± 14.9 months. The mean age of 11 (37.9 %) patients (7 female, 4 male) who had glaucoma before DMEK was 59 ± 15 years. DMEK was performed in 7 eyes (63.6%) for pseudophakic bullous keratopathy and in four eyes (36.3%) for failed penetrating keratoplasty grafts. Glaucoma was present preoperatively in all of the patients. The mean preoperative and postoperative intraocular pressure (IOP) was 15.5 ± 5.1 mmHg and 12.5 ± 2.9 mmHg. Two had trabeculectomies and IOP of the remaining patients were controlled with topical antiglaucomatous drugs, preoperatively. After DMEK only one patient underwent trabeculectomy and in the others IOP was controlled with medical treatment. The cornea was clear in 8 (81%) eyes and edematous in an eye with primary graft failure and in a patient, who underwent trabeculectomy after DMEK. Visual acuities were counting finger at 1 m or less in all of the patients preoperatively. Visual acuity was 0.3 logMAR or better in 6 eyes. Visual acuity did not improve in 4 eyes despite the corneas were clear (3 had glaucomatous optic atrophy and 1 had degenerative myopia plus glaucomatous optic atrophy).

Conclusion(s): Glaucoma is frequent in bullous keratopathy patients. In order to improve DMEK success the IOP must be controlled preoperatively and the IOP must be checked in patients with bullous keratopathy following cataract surgery.

OP-9 LUNG TRANSPLANTATION AND INFECTIONS: DONOR TO RECIPIENT

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Aim: Infections lead to significant mortality and morbidity in post-transplant period. We evaluated lung transplant (LuTx) recipients and donors in terms of infection time, infection factors, prophylactic therapy and treatment strategy and then assessed their effects on chronic complications and mortality.

Methods: We retrospectively searched all infective episodes of 51 recipients in terms of time and etiology. We also assessed donor-related microbiological data retrospectively and their clinical effects in the post-op period.

Results: 51 LuTx recipients with an average age of 46.8 and a duration of 1-66 months were evaluated. The most frequently isolated infectious agents in donor materials are; *S. aureus* (16), *Candida* species (15), *A. baumannii* (10) and *P. aeruginosa* (7). Since 5 recipients had HbsAg(+) results before transplantation, operation was performed with an antiviral treatment. In early post-op period, the most common infectious agents are bacterial then followed by fungal infections. In the first post-operative month *A. baumannii* was detected in 14 recipients. In 3 recipients, *A. baumannii* sepsis developed (agent was detected from catheter, BAL and peripheral veins) and a recipient who had a retransplant for CLAD was deceased due to multiorgan failure. From those fourteen, 2 CLAD cases, 1 vanishing bronchus case, 1 NTM infection case, 1 PTLN case developed and other three were deceased because of multiorgan failure in early post-operative period. Candidemia was detected in only one recipient who was given TPN for a long time due to progressive nausea and vomiting. During middle-long term follow-up, mostly CMV infections were seen. 19 of the recipients had CMV infection (most often 4-12 months), of which 4 were pneumonitis. We have found that the recipients that CMV infection repeat have had underlying conditions like vanishing bronchus or co-infections such as fungal infection, MAC infection. Severe aspergillus infection was seen in 4 recipients (ulcerative tracheobronchitis, pseudomembranous tracheobronchitis and anastomotic infection, invasive aspergillosis, fungal ball infection of a NTM infection cavity). Totally, mortality due to infectious causes was seen in 3 recipients with a prolonged intensive care unit follow-up.

Discussion: Among all solitary organ transplants (SOT) infections and rejections are most commonly seen in lung transplant recipients. Because cadaveric donors are used in lung transplants, antibiotic prophylaxis is chosen considering donor-related infections. The presence of donor-derived resistant pathogens such as *acinetobacter* and *pseudomonas* suggests that colonization and endemicity in intensive care units are frequent in our country, so we added inhaler colistin as a prophylactic antibiotic. Early post-op infections with resistant microorganisms were effective in mortality and morbidity. And also we conclude that CMV and fungal infections are alarming rejection, co-infection and other chronic clinical problems.

OP-10 CYTOMEGALOVIRUS (CMV) INFECTIONS/DISEASES AFTER LUNGTRANSPLANTATION: A SINGLE CENTER STUDY FROM TURKEY

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Purpose: To review the frequency of post-transplant CMV infections or diseases, to assess the success of our treatment regimen (prophylactic and preemptive) and finally to investigate the association of CMV with long-term complications.

Material and method: We reviewed 40 of 51 LuTx recipients, between 2013 and 2018, who survived/ were followed more than 3 months retrospectively, in terms of CMV infection or disease, antiviral treatments and long-term problems. All cases were evaluated for CMV serology preoperatively. All recipients received prophylactic antiviral therapy (valganciclovir/ganciclovir) in the first three post-operative months according to their serology results. After third month of LuTx, we performed preemptive treatment strategy by monitoring the CMV PCR. CMV-PCR positivity in BAL and/or blood without any clinical and radiological evidence is defined as "CMV infection"; where CMV-PCR positivity with clinical and radiological findings is defined as "CMV disease". If CMV was detected, according to clinical conditions, IV. ganciclovir or oral valganciclovir treatment was continued at least 6 weeks. The treatment was proceeded at least 2 weeks more after blood and/or BAL CMV-PCR conversion to be negative.

Findings: All recipients and donors were positive for CMV IgG serology. 30 cycles of CMV diseases/infection (4 pneumonitis, others were infections) were detected in 19 of 40 patients (% 47.5). All cases were successfully treated for CMV infection/disease and discharged. Neutropenia developed due to antiviral treatment in 5/19 (26.3%) of the patients, thus filgrastim was introduced for these cases and their immunosuppressive drug levels were also reduced. We also observed chronic complications of LuTx such as organising pneumonia (OP) (n:1), acute cellular rejection (ACR) (n:3), chronic lung allograft dysfunction (CLAD) (n:3), recurrence of primary disease (n:1), vanishing bronchus (VB) (n:3) and co-infections.

Conclusion(s): 47.5 % of recipients developed CMV episodes (infection/disease). This ratio is within the range previously mentioned in literature (%30-86). Pneumonitis data (4/40; %10) was also consistent with the literature (12%). Those results show that our CMV prophylactic treatment regimen and follow-up and treatment strategy are sufficient. But, although LuTx recipients in this study are in the middle-risk group for CMV infection, we found higher rates than we expected. It may be because of higher rates of unexpected complications like VB in our cases. For other cases without any other clinical complications, we should evaluate immunosuppressive drug levels. It is worthy that CMV is associated with many clinical events such as AR, CLAD, VB, OP, disease recurrence and co-infections. The effects of CMV on the development of AR, OP, CLAD and co-infections have been mentioned in previous publications, but controlled studies are needed to investigate the effect of CMV in the development of primary disease recurrence and VB.

OP-11 POST-LUNG TRANSPLANT DELIRIUM IS RELATED TO INCREASED LENGTH OF STAY BUT NOT MORTALITY

Ibrahim Mungan , Sinan Türkan , Şerife Bektaş , Dilek Kazancı , Sema Turan , Erdal Yekeler

Purpose: The incidence of delirium has been reported to be as high as 87% in patients admitted to the intensive care unit (ICU) and in transplant patients. It has been associated with worse survival and outcomes in other critically ill populations, so this deteriorating effect could be expected in lung transplant recipients as well. The available data on delirium after lung transplantation is limited to a few small single center studies. We aimed to evaluate the incidence and the relations of the delirium after lung transplantation (LT).

Material and method: In this single-center, retrospective, cohort study, we enrolled all patients who received an LT from January 1, 2013 to July 31, 2018. To identify patients with delirium, the medical records (MR) and the neurologic and/or psychiatric consult service requests of LT recipients were searched for a diagnosis of delirium. Patient characteristics, details of transplant surgery, and postoperative hospital course from the MR were collected as well. Statistical analysis was performed using SPSS version 20.0 for Windows (SPSS Inc., Chicago, IL, USA). Findings: Throughout the study period, 45 consecutive patients underwent LT and 19 patients (42,2%) developed delirium. No significant differences were observed between patients who developed delirium vs those who did not regarding age, sex, past medical history, lung allocation score or indication for transplantation (Table 1). Table 2 lists patient characteristics at the time of delirium onset. Delirium start day was found as $7 \pm 5,2$ and the duration was 2.2 ± 0.8 days. The operational details are listed in Table 3 and no relation with delirium factor was detected statistically. The mean tacrolimus level was not related statistically to delirium 12.5 vs 11 ($p=0.395$) but delirium group had a supratherapeutic level >12 ng/ml. The mortality rate in delirium group was higher 26.3% vs 11.5% , but this was not significant statistically ($p=0.209$). Patients with delirium spent more time on mechanical ventilation ($234,6$ vs $64,2$ hours, $p=0,014$) and had longer ICU stays ($27,8$ vs $10,7$ days $p<0,001$), longer hospital stays (45 vs 28 days, $p=0,001$) than patients who did not develop delirium.

Conclusion(s): Delirium may be the cause, or a manifestation, of a patient's critical condition and the presence of delirium is common after LT. It is associated with high morbidity and mortality so efforts should be made to identify and manage patients with delirium earlier.

OP-12 ANALYSIS OF PATIENTS REFERRED FOR LUNG TRANSPLANTATION: FOUR YEARS EXPERIENCE

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Purpose: The selection of lung transplant candidates and referral time of patients to a transplantation centre has an important role in the success of lung transplantation (LTx). This study defines the characteristics of patients referred to our LTx unit in Ege University which was established three years ago.

Material and method: Medical records of 157 patients referred to our LTx unit between January 2014 and June 2018 were analyzed in terms of age, gender, occupation, diagnosis, referral time, medication, comorbidity, respiratory function tests, smoking tests, result and cause of assessment for candidacy, retrospectively. The assesment was performed according to international guidelines determined by ISHLT.

Findings: The median age of the patients (101 males and 56 females) was 52 (40-59) years. The referral of patients to our centre increased year by year (Figure 1). The most common diagnosis was interstitial lung disease (ILD) in 27.4% of patients followed by chronic obstructive pulmonary disease (COPD) (23.6%) and idiopathic pulmonary fibrosis (IPF) (15.9%). The usage of continuous oxygen was 61.1% and 14.0% of patients were using non-invasive ventilation (NIV). The incidence of hospitalization two or more times in a year was 27.4% and 17.1% of these patients were followed-up in intensive care unit (ICU). Six patients was intubated and NIV was performed to 25 patients in ICU. The median of the time between diagnosis and referral was 36 (12-60) months for IPF patients and 24 (12-60) months for all the patients with fibrosing pulmonary disease. After the first meeting 7.6% of patients approved for further evaluation, 59.9% were refused, 15.3% were offered for follow-up and 17.2% did not returned for a desicion or second meeting (Figure 2). The main causes of refusal were comorbidity (37.2%), advanced age (20.2%), social insufficiency in social status (17.0%) and patients rejection (14.8%).

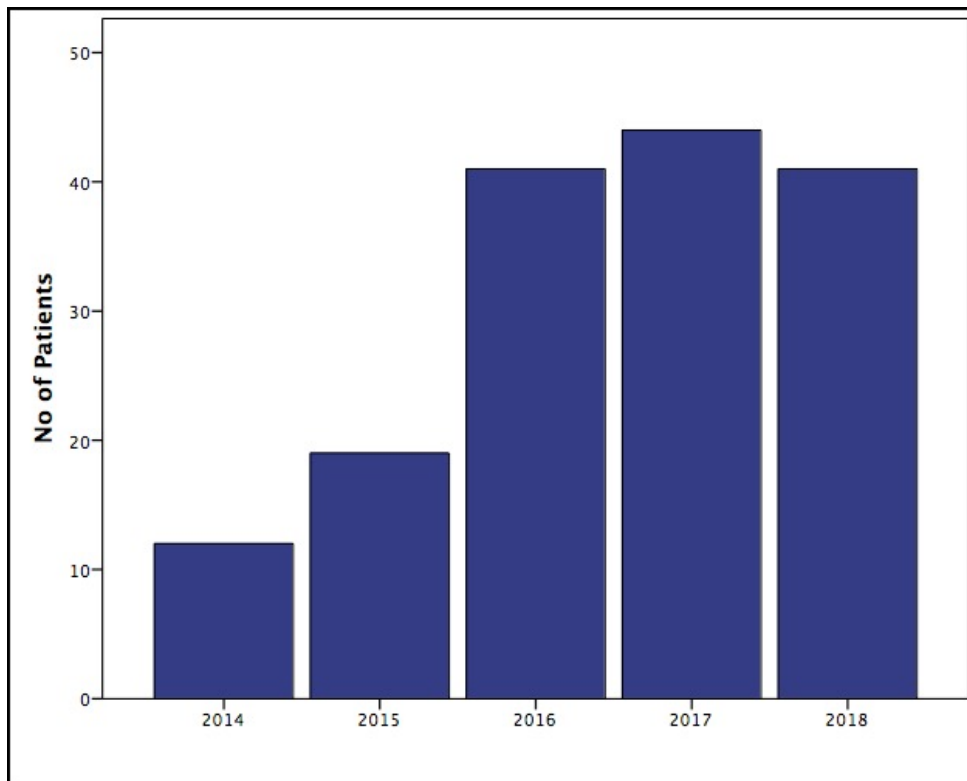


Figure 1. Distribution of patients referred according to years

Table 1. Patient characteristics according to respiratory pathologies

	Gender (M/F)	Age	Referral Time	FEV1 (%)	FVC (%)	FEV1/FVC	BMI	Comorbidity (+/-)	Smoking History (+/-)
ILD (n=43)	28/15	48.8±13.2	32.1±26.6	49.2±19.0	50.1±19.6	93.0±15.6	27.7±5.3	20/23	28/15
COPD(n=37)	32/5	55.4±4.9	90.0±66.8	30.2±12.1	50.0±17.4	50.33±12.1	22.2±3.8	21/16	33/4
IPF (n=25)	23/2	57.6±9.6	43.7±38.6	60.4±26.8	58.6±23.8	91.3±25.8	27.2±3.7	16/9	20/4
Others (n=52)	18/34	40.6±12.7	126.8±103.5	38.8±20.6	44.6±20.0	72.5±18.3	22.9±5.6	27/25	19/33

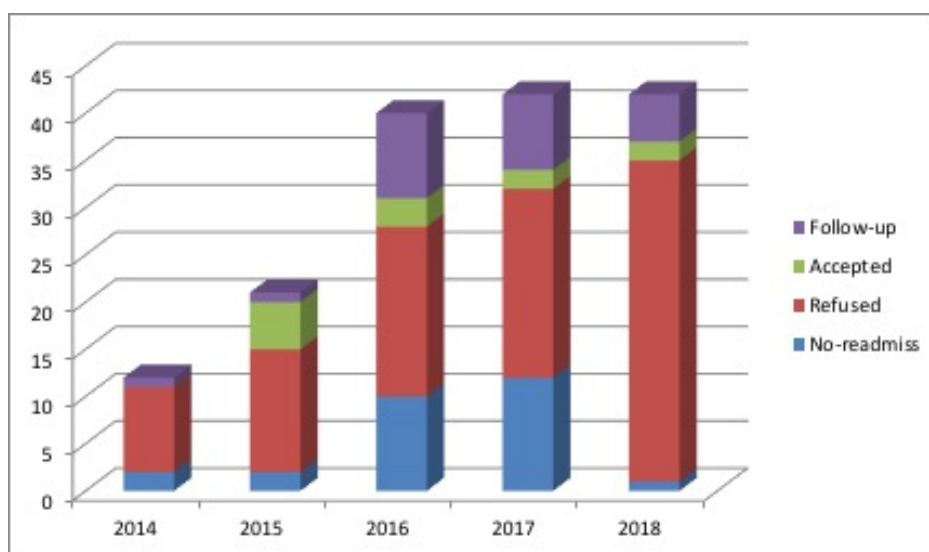


Figure 2. Distribution of patients according to decisions among years

Conclusion(s): In this study we observed that only 7.6% of patients met the criteria for further evaluation. This was a very low rate depending on mainly late referral time, high comorbidity incidence and advanced age. This four year experience led us to design new protocols and communication ways for patients and referring physicians in order to reduce referral time interval, to decrease the negative patients factors like comorbidity, advanced age and negative point of view for lung transplantation.

OP-13 NURSING STRATEGIES OF LUNG TRANSPLANT RECIPIENTS WITH EXTRACORPOREAL LIFE SUPPORT IN THE INTENSIVE CARE UNITS

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Purpose: Lung transplantation (LuTx) is a treatment option for benign, terminal-stage pulmonary insufficiency with an acceptable morbidity and mortality rates. Extracorporeal membrane oxygenation (ECMO) is an irreplaceable component of LuTx during operative period. During post-operative follow-up in intensive care units (ICU), ECMO support could be a life saving decision. The routine follow-up of LuTx patients with ECMO is crucially important and should be done by an educated team. In this study, our goal to emphasize the principles of nursing care of ECMO patients in lung transplantation.

Material and method: From March 2013 – July 2018, 50 LuTx was performed. A total of 14 patients (28.0%) received ECMO postoperatively, during ICU follow-up. The records were enrolled retrospectively.

Findings: Of all patients, 12 (85.7%) were man, 2 (14.3%) were woman; mean age 39 years (range: 22-61 years). Thirteen (92.9%) patients received venous-arterial ECMO, whereas one patient (7.1%) had venous-venous ECMO. The preference of cannulation was femoral in most cases. The mean follow-up with ECMO was 4 (range: 2 - 17) days. During ICU follow-up, femoral cannulation sites of both arterial and venous lines were observed pathologies such as bleeding, oozing, hematoma, malposition of cannula, infection and lower extremity perfusion was observed frequently intervals. The pulses of lower extremity (a.dorsalis pedis and/or a.tibialis posterior) were detected either manually or with Doppler ultrasonography. The dressing of cannulation site and daily nursing care were given. Additionally, ECMO parameters such as flow, pressures, and FiO₂ value were recorded. During ECMO period the anticoagulation was provided with intravenous heparin infusion; ACT and aPTT were the parameters to ensure anticoagulant effectiveness. Hemoglobin, hematocrit, platelet count, and blood gas analyses were followed-up routinely. Seven patients (50%) were alive and survival was calculated as 50% in ECMO supported LuTx recipients, at ICU follow-up.

Conclusion(s): Although ECMO is an irreplaceable component of lung transplantation it does not heal the heart and lungs but gives them time to rest and recover. Anticoagulation should be considered in ECMO patients requiring specific follow-up and care. In the situation of thrombocytopenia, a special consideration for differential diagnosis should be given; whether a consumption of platelets related to ECMO or a heparin induced thrombocytopenia (HITT) occurs. In addition to routine follow-up records, ECMO parameters should also be recorded. Special consideration should be given to cannulation sites such as edema, hematoma, bleeding, pulselessness in the extremity, difficulties in the tissue perfusion, and inactivity of lower extremity. Risk factors related to gastrointestinal system should be avoided. Precautions should be taken against sleep disturbances and excessive stimuli in the intensive care units. The lack of information and fear of the issue in the family members should be clarified. ECMO is a heart-lung support device which improves the success of LuTx and increases patient survival. We believe that complications of ECMO after transplantation can be minimized with a systematic nursing follow-up which improves patient survivals.

OP-14 VANISHING BRONCHE SYNDROME AFTER LUNG TRANSPLANTATION

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Purpose: Vanishing bronche (VB) is a rare complication (2.5-3%) seen in the distal part of the anastomosis, which leads to narrowing of the bronchial system. We shared VB cases seen after the lung transplantation (LuTx).

Material and method: Between March 2013 and March 2018, 45 LuTx (5 SLuTx, 40 DLUtx) were performed. The mean age of the cases (6 females, 39 males) was 49.2. 4 VB cases (8.8 %) were diagnosed.

Findings: In all cases, VB was detected within the first year . VB was diagnosed especially in intermedier bronchus(IB) and also left upper lobe bronchus, left lower lobe(Table-1). In all cases, intermittent balloon dilatation was performed (Figure 1a,b,c). One patient with Kartagener syndrome who had ECMO did not respond to dilatation and exitus developed due to rapid progression. In 2 cases permanent patency was obtained with dilatation. In one case recurrent dilatation (36 times) and stent was applied due to re-stenosis. In all cases, various proliferations were detected in BAL cultures(Table 1).

	Olgu-1	Olgu-2	Olgu-3	Olgu-4
Diagnosis	COPD	COPD	COPD	Kartagener syndrome
LuTx	DLuTx	DLuTx	DLuTx	SLuTx+ECMO (intraoperative and postoperative)
Age	58	56	60	22
Sex	male	male	male	female
Localization	IB	IB+Left upper lobe	IB	Lingula+Left lower lobe
Duration	3. Months	5. months	7. months	2. months
BAL	Candida, aspergillus, ESBL (+) E.coli, K.pneumonia CMV enf	Tbc. reakt (p.o 6. ay), CMV pneumonia (p.o 7. ay) P.aeruginosa, Penicillium spp. aspergillus	Cmv, P.aeruginosa Saccharomyces lactis	Acinetobacter, Blastomyces, Candida glabrata
Treatment	Balloon dilatation +stent (36 dilatations, 11 times stent) Antibacterial, antifungal and antiviral	Balloon dilatation (12 dilatations) Antibacterial, antifungal and antiviral	Balloon dilatation (5 dilatations) Antibacterial, antifungal and antiviral	Balloon dilatation (12 dilatations) Antibacterial, antifungal and antiviral
Result	Follow up- consecutive dilatations and stent 25. Months	Follow up only 26. Months	Follow up only 22. Months	Exitus 4. Months

Table-1

Conclusion(s): VB with a frequency of 2.5-3% in the literature , was seen in our 4 cases (8.8%). The etiology is not fully understood; infections, ischemia, tissue damage, etc. are accused. Although it is usually seen in IB, the entire bronchial system can be affected. It usually occurs within the first year and the mean survival is 25 months. In our cases we have seen VB mostly in IB and in the first 6 months. In all cases, reproductions in BAL also supports the presence of infections in the etiology. Long-term and high-flow ECMO has also been reported in the literature as a cause of impaired bronchial cartilage perfusion. In one case which we had long-term ECMO use, VB prognosis was poor, progressive and fatal. Treatment includes mechanical dilatation, laser, cryotherapy and stent applications. However, hence the mucosal and submucosal trauma is less , balloon dilatation is the priorly preferred method. We first performed dilation applications and if it's necessary applied stent. Stent applications have a high risk of blockage of the upper lobe bronchus and re-stenosis. In our one case re-stenosis developed.

We presented these cases because we encounter this situation more oftenly in our clinic although it is rare in the literature and we aimed to underline the importance of the situation that increases morbidity and mortality after LuTx if early and sequential dilation is not performed.

OP-15 BURDEN, DEPRESSION AND FATIGUE IN CAREGIVERS OF LUNG TRANSPLANTATION CANDIDATES

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Objectives: Lung transplantation is being performed over thirty years in the world and the lack of social support as in other transplantations is a contraindication. A great deal of this social support is often provided by the caregiver of the patient. However, especially in this group of patients, the physical and mental workload is high and can be regarded as a burden on caregiver. The purpose of this study is to evaluate the burden, fatigue and depression of the primary caregiver in patients with lung transplantation candidates.

Material and Methodes: The primary caregiver of patients who were admitted to our hospitals lung transplant outpatient clinic with end stage pulmonary disease and no definite contraindications for transplantation were included in the study. Zarit Burden Scale, Beck Depression Inventory and Short Form - 36 Vitality questionnaire were applied to participants.

Results: 39 patients and caregivers were evaluated. Caregivers experienced low levels of depression. Mean score for Beck Depression Inventory was 12.7 ± 10.1 . Caregivers generally experienced medium levels of burden. Mean score for Zarit Burden Scale was 26.9 ± 14.2 . Majority of caregivers experienced clinically significant fatigue. Mean score for SF-36 Vitality was 61 ± 16.7 . Zarit Burden Scale scores and Beck Depression Inventory scores showed statistically significant positive correlation ($r:0.962$ $p<0.01$).

Conclusion: Increased burden of caregiver of lung transplant candidates was associated with depression and fatigue. The presence of depressive symptoms is noteworthy even in mild to moderate levels of burden. Supporting caregivers, who are expected to carry on posytransplant activities, has a great importance in terms of patient care.

Key Words: Lung transplantation, care givers, burden, depression, fatigue

TABLE 1: Characteristics of patients and caregivers

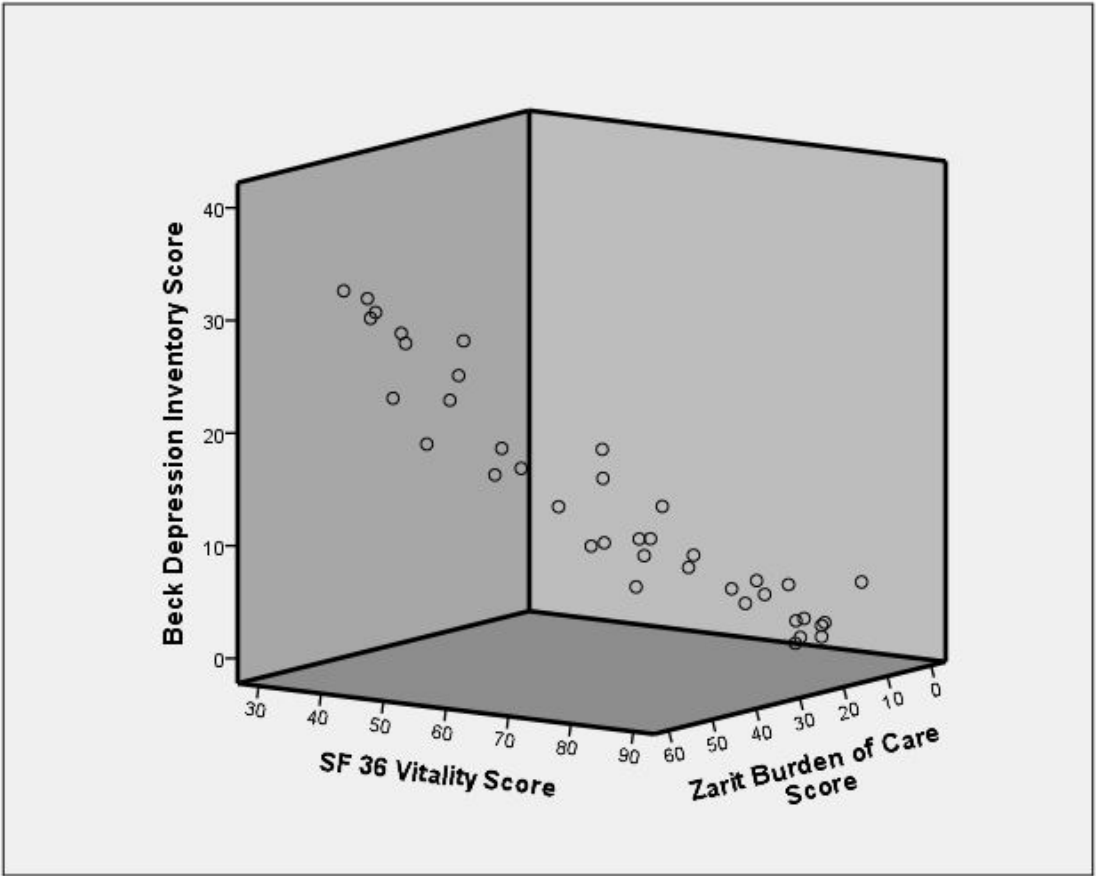
Caregiver Characteristics		Patient Characteristics	
Age, mean $\pm$ SD	41.8 $\pm$ 9.8	Age, mean $\pm$ SD	41.2 $\pm$ 13.3
Female, n (%)	31 (79.5)	Male, n (%)	23 (59)
Caregiving Duration, n (%)		Smoking, packs/year, mean $\pm$ SD	6.9 $\pm$ 9.5
< 1 year	1 (2.6)	BMI, kg/m ² , mean $\pm$ SD	29 (6.8)
1-3 years	13 (33.3)	Primary Diagnosis, n (%)	
> 3 years	25 (64.1)	COPD	11 (28.2)
Income, n (%)		Interstitial Lung Disease	12 (30.8)
Very High	4 (10.2)	Bronchiectasis	9 (23.1)
High	3 (7.7)	Cystic Fibrosis	5 (12.8)
Middle	12 (30.8)	Idiopathic Pulmonary	2 (5.1)
Low	15 (38.5)	Arterial Hypertension	
Very low	5 (12.8)	Care Need, n (%)	
Educational Status, n (%)		1 – almost independent	4 (10.3)
Illiterate	3 (7.7)	2 – partially dependent	13 (33.3)
Primary School	14 (35.9)	3 – greatly dependent	19 (48.7)
Middle School	9 (23.1)	4 – completely dependent	3 (7.7)
High School	9 (23.1)	Duration of Primary Diagnosis, years, mean $\pm$ SD	9.5 (6.3)
University	4 (10.3)	Oxygen Support, n (%)	30 (76.9)
		NIV Support, n (%)	10 (25.6)
		6MWT, meters, mean $\pm$ SD	264 (100.3)

SD: Standard Deviation, BMI: Body Mass Index, COPD: Chronic Obstructive Pulmonary Disease,

NIV: Non-Invasive Ventilation, 6MWT: 6 Minutes Walking Test

TABLE 2: Distribution of levels of burden, depression and fatigue

Depression n (%)		Burden of Care n (%)		SF-36 Vitality n (%)	
Minimal	20 (51.3)	No burden	16 (41)	$\leq$ 45 Fatigue	10 (25.6)
Mild	6 (15.4)	Moderate Burden	13 (33.3)	>45	29 (74.4)
Moderate	9 (23.1)	Severe Burden	10 (25.6)		
Severe	4 (10.3)				



OP-16 GASTROINTESTINAL COMPLICATIONS AFTER LUNG TRANSPLANTATION

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Purpose: Gastrointestinal complications after lung transplantation (LuTx)are common and are associated with considerable morbidity and mortality. The incidence of gastrointestinal complications after LuTx are reported in a wide range of 3-51% in the literature and thought to be related to preoperative gastrointestinal diseases, intraoperative vagal damage or postoperative immunosuppression treatment. In this study we examine our experience with gastrointestinal complications after lung transplantation.

Material and method: Between March 2013 – August 2018, we retrospectively analyzed 50 patients who had undergone lung transplantation. Forty-two of recipients (84 %) were man and eight of them (16%) were woman; mean age 47.3 years (range: 22-69 years). Double LuTx was performed in 41 (82%) cases; whereas, single LuTx in 9 (18 %) cases. Gastrointestinal complications were defined as any diagnosis related to the gastrointestinal tract during post-transplant period.

Findings: In 12 of 50 (24 %) transplant patients, 15 gastrointestinal complications observed during follow-up time. The most common gastrointestinal complication was nausea and vomiting (n=6; 40%), followed by diarrhea syndrome (n=3; 20%). Meteorism was observed in 2 patients and resolved with medical treatment. In one case fecaloma associated with chronic constipation developed and in another one gastroparesis was observed and both of them managed with medical treatment modalities . In one recipient cholecystitis developed and managed with performing choledochal stent with ERCP. In another case colon perforation occurred at 7th day after transplantation and was managed surgically. The other 13 complications could be managed with medical treatment modalities successfully.

Conclusion(s): After lung transplantation gastrointestinal complications such as cholecystitis, diverticulitis, appendicitis, colitis, peptic ulcer disease and complications related to bowel motility such as diarrhea, gastroparesis and small bowel obstruction can occur with a high rate (up to 51% in published series and 22% in ours). The majority of early gastrointestinal complications occurred in those patients with idiopathic pulmonary fibrosis (IPF) and chronic obstructive pulmonary disease (COPD) but the reasons are unclear. Proposed mechanisms include the long-term effects of steroids and malnutrition from chronic infections. The diagnosis of abdominal pathology is frequently difficult to make pre-operatively, presumably due to the state of immunosuppression of recipients. Close follow-up is necessary for the early detection and proper management of gastrointestinal complications. Gastrointestinal complications are common in LuTx recipients and may be serious; therefore, early detection and appropriate treatments are imperative. Surgical management is required for some complications, but most can be managed medically.

OP-17 MALIGNANCIES RELATED TO LUNG TRANSPLANTATION

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Purpose: While lung transplantation (LuTx) is the gold standard treatment for end-stage lung diseases, the long-term survival of recipients depends on post-transplant morbidities such as malignancies.

Material and method: Case-1: 29-year-old, male, silicosis underwent single-LuTx. No induction immunosuppressive was received (First hour White Blood Cell:3600/ μ L); prednisone, tacrolimus and mycophenolate mofetil (MMF) was protocol. ICU-stay:22days; hospitalization:36days. During follow-up, routine thoracic-CT (12th month) revealed nodular lesions in the upper lobe of the right lung; no rejection was detected in the pathology of trans-bronchial biopsy (TBB) and also no nodule diagnosis was established. TBB revealed infectious mononucleosis-like (EMN-like) hyperplasia, which was an early finding of post-transplant lymphoproliferative disease (PTLD). The radio-diagnostic examinations revealed no other involvement; immunosuppressive medication protocol of the patient was altered. MMF was ceased and levels of tacrolimus and prednisone were reduced, while everolimus was added. Thoracic-CT (15thmonth) revealed a reduction of nodules. He has been problem-free without any symptoms for eight months after initial diagnosis of PTLD, and for twenty months after transplantation. Case-2: 58-year-old, male, emphysema underwent double-LuTx(DLuTx). Baxiliximab was the induction followed by prednisone, tacrolimus and MMF. ICU-stay:12days; hospitalization:33days. In the eight month of the follow-up, a red-purple 1x1cm maculopapular lesion was detected under the left breast, and patient was diagnosed with Kaposi Sarcoma (KS) from a skin biopsy, although no distant organ involvement was detected. Surgical excision was performed, and HHV-8 DNA positivity was detected in the blood and biopsy specimens. MMF was discontinued, and the other immunosuppressive drug doses were reduced. TBB was carried out due to the presence of bilateral pleural effusion and peri-bronchovascular edema findings in the thoracic-CT at ninth months. Red-purple lesions measuring 1x1.5cm were observed in the mouth during bronchoscopy, the received biopsies were compatible with KS and chemotherapy was initiated. After four cycles of chemotherapy, the lesions were observed to have regressed. The patient has since been problem-free and has developed no symptoms in the ten months since the initial diagnosis of KS, and the eighteen months since transplantation.

Findings: Case-3: 44-year-old, female, IPF underwent DLuTx. Baxiliximab was the induction followed by prednisone, tacrolimus and MMF. ICU-stay:9days; hospitalization:24days. The pathology of lung explants revealed a nodule in the lower lobe of left lung and diagnosed as adenocarcinoma (T1aN0M0-Stage IA1). The patient is under oncology follow-up without disease, eleven months after LuTx. Case-4: 57-year-old, male, emphysema underwent DLuTx. No induction immunosuppressive was received; prednisone, tacrolimus and MMF was protocol. ICU-stay:5days; hospitalization:20days. The pathology of lung explants revealed a nodule in the upper lobe of right lung and diagnosed as adenosquamous carcinoma (T1bN1M0-Stage IIB). The patient is under oncology follow-up without disease, eight months after LuTx.

Conclusion(s): Discussion: After LuTx cancer rates increase with the length of follow-up; during 5-year follow-up 23% of patients, 10-year follow-up 43% of patients diagnose malignancy. Non-melanoma skin cancer and PTLD are common long-term malignancies. Additionally, lung cancer is known to occur in the native lung after single-LuTx. Exposure of immunosuppressive drugs after LuTx has been proposed as risk factor for tumor development. Close follow-up is essential after transplantation, radiodiagnostic tools, laboratory markers, bronchoscopy and TBB are important for diagnosis. The incidental finding of tumor in the explants material is uncommon, and close oncology follow-up after transplantation is essential for survival.

OP-18 TOXIC LEVELS OF TACROLIMUS AND GENETIC POLYMORPHISM OF THE METABOLIZING ENZYMES IN A PULMONARY TRANSPLANTATION PATIENT

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Purpose: Genetic polymorphism of drug metabolizing enzymes can lead to life-threatening adverse effects by increasing the serum levels of the drugs. Tacrolimus is a well-known nephrotoxic agent which is widely used for its immunosuppressant effect in the lung transplant recipients and nephrotoxicity has been associated with the change in tacrolimus pharmacokinetics via polymorphic cytochrome P450 (CYP) 3A4/5 enzymes, drug-drug interactions, gut dysmotility or altered clearance. We present a case report with toxic tacrolimus levels indicating the importance of genetic factors and drug-drug interactions in nephrotoxic effects of tacrolimus.

Material and method: A 29-year-old female patient with lung transplantation who was on polytherapy with tacrolimus consulted to Clinical Pharmacology Department for a high plasma level of tacrolimus (75.89 ng/ml, dose: 10 mg/day) and a possible risk for of acute tubular necrosis at the 3rd day of intensive care unit stay. Tacrolimus was withdrawn from the therapy of the patient and the decline in serum tacrolimus level was followed with an immunoassay method in order to initiate a second tacrolimus therapy. Potential drug-drug interactions which can increase tacrolimus level were analyzed with databases such as UpToDate or Micromedex. Further CYP3A4*22 (rs35599367) and CYP3A5*3 (rs776746) single nucleotide polymorphisms were examined by restriction fragment length polymorphism method.

Findings: There was no clinically important drug-drug interactions between tacrolimus and dopamine, noradrenaline, heparin, colistimethate, ganciclovir, vancomycin, meropenem, methylprednisolone, domperidone, lactulose or mycophenolate mofetil. However related with different literature results for the interaction between proton pump inhibitors and tacrolimus, pantoprazole was replaced with ranitidine, one of the H2-receptor antagonists. Serum levels of tacrolimus declined in the 7th day to 12.35 ng/ml and a supra-therapeutic level was measured (22.9 ng/ml) despite initiation of a lower dose. The analysis of genetic polymorphism resulted in the initiation of the second tacrolimus therapy. The patient was detected to be a poor metabolizer, genetically polymorphic for CYP3A5 and wild-type for CYP3A4. The patient was dead due to sepsis and the follow up of serum concentration of tacrolimus could not be obtained.

Conclusion(s): Although the relationship between genetic polymorphism and toxic tacrolimus level could not be investigated clearly, there is evidence in the literature for the potential effect of polymorphic metabolism enzymes on serum tacrolimus level. Therefore individualization of the initial tacrolimus dose according to genetic polymorphism testing prior to transplantation can help to avoid nephrotoxicity and improve the clinical outcomes of the transplant recipients.

OP-19 IDIOPATHIC PLEURO-PARANCHIMAL FIBRO-ELASTOSIS AND LUNG TRANSPLANTATION

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Purpose: Idiopathic Pleuro-Paranchimal Fibro-Elastosis (IPPFE) is a rare, rapidly progressing interstitial lung disease characterized by collagen, elastic tissue accumulation and fibrosis, involving the upper lobes and subpleural lung tissue. Radiologically, ‘apicalcap’ and fissure involvement are the typical findings. We shared 9 IPPFE cases that we evaluated for lung transplantation(LuTx).

Material and method: Patients who were evaluated for LuTx between March 2013 and December 2016 were reviewed retrospectively. 9 IPPFE cases were evaluated in 3 women and 6 men.

Findings: All cases referred to our clinic within the first year after diagnosis. The mean age was 29.6. Body mass indices were <20, the restrictive pattern in the respiratory function test (RFT) was valid and radiologically, pleural thickening and parenchymal fibrosis were present in the upper lobes. 7 cases were oxygen dependent. In one case pneumothorax; in 2 cases pectus excavatum and in 5 cases diaphragm involvement with no diaphragmatic breathing was observed via fluoroscopy(Table-1).

Conclusion(s): IPPFE is found in the literature as case reports. Dyspnea, dry cough, recurrent respiratory infections are the most common symptoms. Restriction of the RFT and radiological pleural thickening and destruction especially in the upper lobes can be observed. In all of our cases, RFT and radiology were compatible with IPPFE. Diagnosis can be made clinically/radiologically, but definite diagnosis is made by biopsy. In our patients, 4 had biopsy and 5 were radiologically diagnosed. Air cysts, spontaneous pneumothorax can be seen during the later stages of the disease and our one patient had pneumothorax. The etiology is unknown, recurrent infections, immunosuppressive treatments, genetic predisposition, autoimmunity are accused. In our cases, recurrent pulmonary infections was a common finding, having 2 siblings in our patient group suggests genetic predisposition is also in the ethiology. We evaluated IPPFE cases, which has no effective medical treatment, for LuTx. Patients who had severe diaphragm involvement, pectus excavatum , PRA positivity, parkinson disease and mental retardation were not considered candidates for LuTx.Two cases are continuing their follow ups. In IPPFE cases diaphragmatic involvement is important. We have also seen that the diaphragm and intercostal muscles were affected fluoroscopically in our five patients, and there was no chance of transplantation in these cases. IPPFE is a rare disease with poor prognosis and rapid progression. The only treatment option is LuTx. However, the development of severe pleural and diaphragmatic involvement shortly reduces the chance ofLuTx. Therefore, early diagnosis and referral are important for the survival of the cases.

OP-20 DESQUAMATIVE-INTERSTITIAL PNEUMONIA PATIENT SUPPORTED WITH ECMO WHILE WAITING LUNG TRANSPLANT

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Purpose: The dearth of donor organs had led to a 1–2 year waiting period on the lung transplantation (LTx) list for patients. In this period commonly used bridging method is mechanical ventilation (MV). Usually MV alone is insufficient to meet needs. Extracorporeal membrane oxygenation (ECMO) can temporarily support patients while they waiting for LTx. However, we don't know how long it is feasible to wait for LTx with the use of ECMO. If the number of cases published increases, this issue will become more definite. We aimed to share our clinical experience with this case presentation.

Material and method: We report a case with desquamative interstitial pneumonia (DIP) who is in our LTx list.

Findings: Case Presentation: 49-year old man with a history of DIP was included in list of our hospitals LTx in April 2017. After 8 months respiratory arrest developed, he was intubated and mechanically ventilated in another hospital. Despite MV, hypoxia not improved and clinical condition started to deteriorate. The patient who was in our LTx list was transferred to our hospital. Due to severe hypoxia venovenous-ECMO was initiated. The patient with hypoxic respiratory insufficiency was followed with MV and ECMO support. Then tracheostomy was performed. On the 13th day of hospitalization he was taken to passive list due to his infection status. After antibiotic therapy, he was taken to active list again. Despite aggressive mechanical support therapies his clinic was getting worse, then re-communicated with National Organ and Tissue Transplant Coordination Unit, the urgency of the patient was reported and he was placed in first place among candidates. After one day patients blood group compatible donor presentation was performed. But due to the contusion areas in the donor lungs and the right pneumothorax, donor wasn't found appropriate. On 28th day of ECMO severe thrombocytopenia was developed. We thought it could be heparine associated, than heparin stopped, fondaparinux started for alternative anticoagulation and patient was taken to the passive list due to severe thrombocytopenia. After 3 days he was exitus on the 31st day of hospitalization.

Conclusion(s): The most commonly used bridging method in LTx is MV. Usually MV alone is not enough to meet their gas exchange needs. ECMO can use for bridging as an alternative therapy. Although the initial experience and outcomes with ECMO for bridging were unconvincing, recent series demonstrate that good results can be achieved if ECMO protocols and patient selection guidelines are strictly followed.

OP-21 A STUDY OF SHIA AND SUNNI RELIGIOUS LEADERS ATTITUDE TOWARD ORGAN DONATION

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Purpose: The aim of this study was to investigate the attitude of Shia and Sunni religious leaders toward organ donation.

Material and method: This was a study that investigating Shia and Sunni religious leaders' websites, reference books or interviewing with religious leaders' offices to ask their idea. The idea of all 32 available Shia religious leaders and the last Fatwa of High Council of Sunni religious leaders has been collected in 2018

Findings: The result showed that 18.75% (6 persons) of Shia religious leaders are completely agree with organ donation from brain dead cases. Even one of them believed that donation of brain dead organs should be mandatory because other people lives are depended to these organs. 62.5% (20 persons) of them have conditional agreement with the matter. Furthermore, 18.75 % (6 persons) absolutely disagree because they do not believe in brain death as a kind of death.

In Sunni religious leaders point of view transplanting an organ from a brain dead person is possible in two conditions: 1) the life of the patients are absolutely dependent to this transplantation. 2) The brain dead cases has allowed to donate his organs before if brain death or his heirs allow organ donation after the death.

Conclusion(s): In conclusion, considering the religious leader's influences on people especially in religious societies, it is recommended to inform religious leaders about organ donation mechanism and that fact that brain death is a kind of death through which brain is completely dead and will never be restored

OP-22 THE PRIORITIES OF ORGAN TRANSPLANTATION IN UZBEKISTAN

Fakhriddin Ibragimov, Fakhriddin Ibragimov

"health" Journal

Purpose: The demand on Organ Transplantation in Uzbekistan is progressively going to be increased with a high number of patients who develop severe end-organ failure. The actuality of this problem remained up to 2017 due to the absence of Legal Laws. For that reason many patients left Uzbekistan to other countries (mostly India, Turkey, European countries) in order to be operated and find solutions. That way negatively influenced to our Government on the economic and human moral status. In order to solve these problem the Parliamentary Organs of Uzbekistan have decided to set comprehensive approach to that Issue. In November 2017, the Legislative Chamber of the "Oliy Majlis" will introduce a draft law "On transplantation of human organs and tissues. The development of this long-awaited law is envisaged at once by two programs: the State Program for the Implementation of the Strategy of Action for the five priority development directions of the Republic of Uzbekistan in 2017- 2021 in the "Year of Dialogue with the People and Human Interests" and the Program for Elaborating and Submitting to the Legislative Chamber of the Oliy Majlis of the Republic. Development of the draft law is aimed at the legal regulation of transplantation of human organs and tissues, the development of "Transplantology" as a clinical discipline

Material and method: In early stages we have begun Kidney transplantation at Republican Specialized Center of Surgery in Tashkent. The Centre has performed 68 kidney transplantation and of these number was only 1 fatal outcome with the development of acute rejection. Nowadays 3 competent centers are available to perform kindey transplantation throughout the country. Since the beginning of 2018 to the present time, the Centre has performed 2 successful liver transplantation. The Result was more than perfect. We have to notice that all donor organs were the close relatives of the recipient patients.

Findings: We have 33 mln population and 3 centers are allowed to perform kidney and 1 is for liver transplantation. 8 heart surgery Units are available throughout the country and they are ready to perform heart transplantation. Adoption of the law will create a legal basis for the transplantation of human organs and tissues. By the way, to date, the lack of such a regulatory act is a deterrent to the development of health care in Uzbekistan and the reason that people go to be treated abroad. At the same time, domestic doctors are ready to start a number of such operations today, positive results in this direction were obtained in the framework of their scientific activities.

Conclusion(s): We have to conclude that our country has only stepped to develop Human Organ transplantation Program. started bridge way-therapy for heart failures: extracorporeal membrane oxygenation, ventricular assist device and total artificial heart for patients with severe heart failure. Our future Goal is to develop the Heart transplantation and apply it into our current practice. Of course, these all managements require more investment and intensive collaborations with world leading Institutions and that way might release our patients from long-standing organ failures, as well as, develop this filed of medicine in Uzbekistan.

OP-23 MENTAL DISTRESS SYMPTOMS AND LIFE SATISFACTION AMONG LIVING KIDNEY DONORS

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Purpose: Living organ donation is considered as one of the possible solutions for organ shortage. However, living donors have important emotional, social, and psychiatric considerations that need to be addressed. The long-term follow-up of living organ donors is a priority. Considering these issues the aims of this study were to (1) determine psychological states and wellbeing of living kidney donors in years and (2) assess their interaction and association with subjective evaluations. The hypothesis were (1) living kidney donors would have similar depression and anxiety scores with normal population and (2) subjective complaints will interfere with psychological state and wellbeing.

Material and method: This cross-sectional study was conducted with 208 living kidney donors (123 F; 59.1%), aged between 22 and 79 years (48.74 ± 11.78), underwent nephrectomy in the years between 2006 and 2016. All donors were evaluated face to face. The sociodemographical data collection form, an 8 question survey developed by researchers for subjective evaluations, the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI), and Contentment with Life Assessment Scale (CLAS) were administered.

Findings: Only few donors, 3.8% and 7.2%, revealed above the clinical cut off scores at BDI and BAI respectively (equivalent to normal population). 80% of respondents were satisfied with life. Only 5 donors (2.4%) claimed their experience as 'regretful' and depicted higher scores of depression and lower life satisfaction ($p < 0.001$). Similarly 33 (15.9%) donors having thought of getting ill easily after operation were found to be more depressive and anxious with lower life satisfaction ($p < 0.001$). 207 (99.5%) donors told that they would recommend other people to be donors. In most cases their relationship to the recipient was reported not to be changed (64.4%) or even improved (32.5%) and that was found to be related to lower depression scores ($p < 0.001$). Respondents within the first year of donation depicted higher depression ($p = 0.019$) and lower life satisfaction ($p = 0.001$) scores. Finally postoperative complications were found to increase anxiety and lower satisfaction of life ($p = 0.018$, $p = 0.026$). Degree of affinity between donors and recipients showed no difference in postoperative psychological outcomes and life satisfaction.

Conclusion(s): These results suggest that living kidney donation is a treatment without negative impact on donors' life satisfaction and mental status, however the results of unvalidated additional survey questions underlined the importance of following up donors especially in the first year is crucial and screening for donors' subjective experiences is useful in providing additional insight.

OP-24 A NEW AND SUCCESSFUL METHOD IN ENCOURAGING PEOPLE TO REQUEST DONOR CARD

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Purpose: Despite efforts made for organ donation still lots of patients in need of an organ die on the transplant list. One typical reasons for the lack of organs is families rejection of organ donation. General awareness about organ donation increases the statistics of organ donation. An effective way to raise awareness about organ donation is using social media such as television.

Material and method: Based on our past studies, having organ donor card doubles the rate of familys consent. Despite the generosity of Iranian people, organ donor card accounts for less than 10% of the adult population, whereas this number is 53% in the US and 33% in the UK. The mere reason for this is the lack of knowledge of the general population about donor card registration or the complication of its process. With the collaboration of 6 Information Technology Organization of IRAN, Hamrah Aval, Irancell, Ministry of Health, Media, and national identification unit, we have invented a means for people to receive donor card in 30 seconds. Therefore, it is asked from people to send their national ID to number 3432 and after its approval, enter their date of birth; then their donor card is available through a link that is sent to them. Moreover, 3 trailers have been made as advertisements in the national media.

Findings:Results have shown that after this intervention, the rate of organ donor card registration is multiplied by 13.

Conclusion(s):Based on the results, it could be said that facilitating the process of organ donor card registration and introducing it to the general population increases the rate of registration. The mere cause of people not having an organ donor card is their lack of knowledge about the registration process and the complication of the process.

OP-25 RELIGIOUS AND CULTURAL ASPECTS OF ORGAN DONATION IN TURKISH POPULATION

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²Turkish Transplant Foundation

Purpose: Organ donation is becoming more important with increasing organ transplantation possibilities. We aimed to determine the level of knowledge and thoughts of a group of people about organ donation.

Material and method: Organ donation is becoming more important with increasing organ transplantation possibilities. We aimed to determine the level of knowledge and thoughts of a group of people about organ donation.

Findings: As a result of the survey, 317 participant were evaluated. 242 (76.3%) of the participants were female and 75 (23.7%) were male. Younger participants constitute the majority of the population, with 255 (80.4%) between the ages of 18-25, 20 (6.3%) between 26-35 years, 23 (7.3%) between 36-45 years, 45-55 years 16 (5%) and 3 (0.9%) participants over 56 years of age. When evaluated according to the level of education of the participants, 232 (73.2%) are at university degree. There are 10 (3.2%) primary school level, 40 (12.6%) high school level, 19 (6%) under university degree and 16 (5%) master degree level. The majority of the participants reside in the Marmara Region with 197 (62.1%) people (table 1). When we evaluated the religious aspect of our study, we see that 301 (95%) were Muslim, 9 (2.8%) were atheist, 4 (1.2%) were agnostic and 3 (0.9%) were deist. There were 7 (2.2%) people who had previously donated organs, 32 (10.1%) people who were related to organ donation according to their relatives, and 278 (87.7%) who did not have any personal contact with organ donation. In addition, there are 32 (10.1%) people whose relatives in need of organ transplant while there are no participants who need organ transplantation at any stage of their life. 75 (23.7%) of the participants reported that they received information about organ transplantation via television, while 117 (36.9%) of them reported that they received from doctors, nurses or health workers. Participants who were asked what they thought about organ donation say that 125 (39.4%) will definitely donate organs, 22 (56.9%) are only interested in live donations and 163 (51.4%) are undetermined. 7 (2.2%) people say that they will definitely not donate in any condition. The people who are positive for organ donation, 84,8% say yes because of doing favor, and 15,2% due religious purpose. 88 (%45,8) of the participants who think negatively about organ donation or those who are undetermined about organ donation stated that they do not have enough information. To assess the impact of participants beliefs on responses; Of the 301 Muslim participants, 110 (36.5%) favored organ donation, and 19 (6.3%) of them were linked it to religious reasons. Besides, 4 (1.3%) of 6 (1.9%) Muslim participants who say that they will definitely not donate think that organ donation is religiously inappropriate. We see that the idea of a living donation is effective on the Muslim people. Of the 22 Muslim participants (7.3%), 5 (1.6%) attributed the idea of living donation to religious reasons and 11 (3.6%) did not have enough information. The total number of atheist participants was 9, 8 (88.8%) believed that the reason for organ donation was linked to make a favour, while 1 (11.2%) stated he is disposed to donating organ because of infection. The remaining 7 participants have the beliefs of deism or agnosticism, and all of them definitely define organ donation as doing favour. In order to evaluate the effects of cultural causes, we examined regional responses and found that 85 (43.3%) of the 196 participants in the Marmara Region will definitely donate organs, 18 (9.1%) are positive only for live donations, 5 will definitely not donate.

Conclusion(s): It is known that religious and cultural factors in our country are influential on organ donation as it is in the whole of the world. In the survey we conducted in a section of society, we have seen that religious causes are particularly effective, with participants less than we expected in organ donation. Despite the fact that the Residency of Religious Affairs has given a favorable fetwa regarding organ donation, religious reasons, especially in Muslims, has strong influences on the level of organ donation in our country. Besides, it is also observed that our society does not have sufficient information about organ transplantation. It is clear that public awareness will reduce the effects of all these causes on the donation idea and enhance objective approaches.

OP-26 RELIGIOUS AND CULTURAL ASPECTS OF ORGAN DONATION IN TURKISH POPULATION

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²Turkish Transplant Foundation

Purpose: Organ donation is becoming more important with increasing organ transplantation possibilities. We aimed to determine the level of knowledge and thoughts of a group of people about organ donation.

Material and method: From different parts of the Turkey between two months period, 500 people were requested to fulfill on line assesment about 'cultural and religious aspects of organ transplantation in Turkey.' The survey responses of participants in the study were evaluated.

Findings: As a result of the survey, 317 participant were evaluated. 242 (76.3%) of the participants were female and 75 (23.7%) were male. Younger participants constitute the majority of the population, with 80.4% between the ages of 18-25, 6.3% between 26-35 years, 7.3% between 36-45 years, 5% between 45-55 years and 1% participants over 56 years of age. When evaluated according to the level of education of the participants, 73.2% university degree, 3.2% primary school level, 12.6% high school level, 6% under university degree and 5% master degree level. The majority of the participants reside mostly in the Marmara Region with 62.1%. When we evaluated the religious aspect, 95% were Muslim, 2.8% atheist, 1.2% agnostic and 1% were deist. There were 2.2% people who had previously donated organs, 10.1% people who were related to organ donation according to their relatives, and 87.7% who did not have any personal contact with organ donation. In addition, there are 10.1% people whose relatives in need of organ transplant while there are no participants who need organ transplantation at any stage of their life. 23.7% of the participants reported that they received information about organ transplantation via television, while 36.9% of them reported that they received from doctors, nurses or health workers. Participants who were asked what they thought about organ donation say that 39.4% will definitely donate organs, 56.9% are only interested in live donations and 51.4% are undetermined. 2.2% people say that they will definitely not donate in any condition. The people who are positive for organ donation, 84.8% say yes because of doing favor, and 15.2% due religious purpose. 45.8% of the participants who think negatively about organ donation or those who are undetermined about organ donation stated that they do not have enough information. To assess the impact of participants beliefs on responses; Of the 301 Muslim participants, 36.5% favored organ donation, and 6.3% of them were linked it to religious reasons. Besides, 4 (1.3%) of 6 (1.9%) Muslim participants who say that they will definitely not donate think that organ donation is religiously inappropriate. We see that the idea of a living donation is effective on the Muslim people. Of the 22 Muslim participants (7.3%), 5 (1.6%) attributed the idea of living donation to religious reasons and 11 (3.6%) did not have enough information. The total number of atheist participants was 9, 8 (88.8%) believed that the reason for organ donation was linked to make a favour, while 1 (11.2%) stated he is disposed to donating organ because of infection. The remaining 7 participants have the beliefs of deism or agnosticism, and all of them definitely define organ donation as doing favour. In order to evaluate the effects of cultural causes, we examined regional responses and found that 85 (43.3%) of the 196 participants in the Marmara Region will definitely donate organs, 18 (9.1%) are positive only for live donations, 5 will definitely not donate.

Conclusion(s): It is known that religious and cultural factors in our country are influential on organ donation as it is in the whole of the world. In the survey we conducted in a section of society, we have seen that religious causes are particularly effective, with participants less than we expected in organ donation. Despite the fact that the Presidency of Religious Affairs has given a favorable fetwa regarding organ donation, religious reasons, especially in Muslims, has strong influences on the level of organ donation in our country. Besides, it is also observed that our society does not have sufficient information about organ transplantation. It is clear that public awareness will reduce the effects of all these causes on the donation idea and enhance objective approaches.

OP-27 FACTOR AFFECTING ATTITUDE TOWARD ORGAN DONATION IN HEALTHCARE PROFESSIONALS

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Purpose: Healthcare professionals can affect attitudes toward organ donation in society; therefore, priority should be given to exploration of attitudes for health professional. The aim of this study was to examine healthcare professionals' attitudes and the affecting factors

Material and method: This descriptive and cross-sectional study was conducted between May and August in 2018. The sample was comprised of 220 health professionals (nurses and physicians) who working in University Hospital and Family Health Centers located Southern Black Sea Region of Turkey. Data were collected by using Sociodemographic Form, The Organ Donation Questionnaire and Organ Donation Attitudes Scale (ODAS). Descriptive statistics (mean, standard deviation, and ratio), independent t-test, kruskal wallis test and correlation analyses were used.

Findings: The participants were mean aged $36,05 \pm 7,52$ years (min-max=20-52 years). The mean score of the participants was $100,98 \pm 13,18$ for the positive dimension and $46,81 \pm 17,61$ for the negative dimension of the scale. The mean scores for humanity and moral conviction, fear of medical neglect, and fears of bodily mutilation were $100,98 \pm 13,18$; $20,95 \pm 10,15$, and $25,85 \pm 9,88$, respectively. There was no factor influencing the positive attitudes of organ donation among healthcare professionals ($p > 0.01$). It was found that nurses, healthcare professional working in university hospital, intensive care unit have higher negative organ donation attitudes ($p < 0.01$). It was found that negative attitude towards organ donation decreased as age increased ($r = 0.146$; $p = 0.016$). Overall 17.7% of the participants had a donor card, and 27.3% of the participants definitely wanted to donate their organs.

Conclusion(s): Because the negative attitudes of nurses are higher in this study, the results reflect to necessary the intervention studies to sensitivity on organ donation. It is striking that health professionals who working in intensive care unit have high negative attitudes toward organ donation. Intensive care units are the most important units in organ donation. For this reason, it is important for the healthcare professionals working in the intensive care unit to have high level organ donation knowledge and positive attitudes, It can be recommended that interventional studies should be performed with intensive care healthcare professionals. In order to positively influence the attitudes toward organ donation of younger healthcare professionals, undergraduate education curriculars of healthcare professional should be included organ donation issue.

OP-28 ADHERENCE OF IMMUNOSUPPRESSIVE DRUG TREATMENT AND QUALITY OF LIFE IN PATIENTS WITH RENAL TRANSPLANTATION

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Purpose: Chronic renal failure is an important health problem in our country and affects our quality of life negatively. One of the recent treatments of renal failure is transplantation. After the transplant, compliance to the immunosuppressive therapy is rather essential. Compliance of the patient can decrease the intensity of the symptom by increasing the success of the treatment and affect the quality of life positively. This study was conducted in an attempt to identify the factors which affect the quality of life and the compliance levels of the patients transplanted renal.

Material and method: Before the study, the necessary permission was obtained from the ethics committee. The study was conducted with 244 renal patients at a private hospital. The study aimed to reach all 244 renal patients, but it was reached to 206 of them. The data was collected by face-to-face interviews.

Findings: In the study, the age average was 41,40±11,88. 92,7% of the patients are in the age range of 46-59, 54,4% of them was transplanted from a living donor, 54,9% of them experienced side effect and 2,9% of them got rejection because of incompatibility. The age group of 46-59 had the highest organ compliance. The scores of role-strength physical function and role-strength emotional function were both high on men and compliance scores were higher on the group who did not experience any side effect. While there was no significant change in compliance scores according to the age of the patients and the duration of renal failure, it was determined that as the Tx process increased, compliance decreased; as the compliance score increased, physical function, vitality and mental health scores increased.

Conclusion(s): The results of this study are taken into account, it is considered that there is a significant relation between compliance and quality of life and that the frequency of side effect development decreases and the quality of life increases.

OP-29 CARING FOR PATIENTS WITH VENTRICULAR ASSIST DEVICE

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Purpose: Heart transplantation, which is one of the treatment options of end-stage heart failure, is still regarded as the gold standard treatment to improve quality and length of life. However, the rapid increase in the number of patients waiting for heart transplantation and the inadequate number of donors make heart transplantation a less feasible option and increases the need for ventricular assist devices as an alternative to heart transplantation. The success of ventricular assist device implantation requires the collaboration of a multidisciplinary team consisting of cardiac surgeons, nurses, ventricular assist device coordinators, cardiac anesthesia specialists, perfusionists and physiotherapists. Nurses working in different fields such as intensive care units, operating rooms, outpatient clinics and ventricular assist device coordination units have important responsibilities in multidisciplinary teams. To identify nursing care and management of patients with ventricular assist devices can be useful in improving quality of care.

Material and method: A review of national and international studies on the responsibilities of nurses for the management and care of patients with ventricular assist devices presented in the study.

Findings: Nurses undertake many tasks, especially in the postoperative care of patients and in preparing them for discharge. Some of the important responsibilities of nurses in the care of patients with ventricular assist devices are monitoring complications, managing equipment and emergency situations, establishing changing dressing protocols, organizing daily life activities, determining rehabilitation needs, ensuring use of medicines and providing comprehensive discharge education.

Conclusion(s): Organizational and communication skills of nurses working with multidisciplinary teams are very important for the success of ventricular assist device implantation process.

OP-30 NURSING DIAGNOSIS AND INTERVENTIONS IN KIDNEY TRANSPLANT RECIPIENTS: RETROSPECTIVE STUDY

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Purpose: The aim of the study is to determine the nursing diagnoses and interventions applied to kidney transplant recipients.

Material and method: A descriptive retrospective study of nursing care plans of patients who underwent kidney transplant from January 2008 through December 2016 was performed. Data were collected using a descriptive characteristics information form for patients and nursing care plans registered to the hospitals information processing system. Datas for nursing care plans of 51 kidney transplant recipients were analyzed.

Findings: It was determined that 58.8% of the kidney transplant recipients were female and the mean age was 43.41 ± 13.08 , and 85.1% of the patients had undergone kidney transplantation from living donors. The most commonly used nursing diagnoses in the care of kidney transplant recipients were risk of infection (100%), lack of knowledge (100%), risk of bleeding (29.4%) and acute pain (23.5). The most common interventions were “setting aside time for the patient for asking questions and discussing his/her concerns” (72.5%), “limiting the number of visitors” (70.5%), “evaluating all the visitors in terms of contagious diseases” (70.5%), and “examining the infection-related laboratory findings” (60.7%).

Conclusion(s): Nursing diagnosis and interventions applied in the care of kidney transplant recipients seem to be limited. In order to provide holistic care to the kidney transplant recipients, the nursing care plans should include more extensive nursing diagnosis and interventions to maintain physical, psychological and social well-being.

OP-31 NURSING CARE OF THE PATIENT WITH NEUROGENIC BLADDER AFTER KIDNEY TRANSPLANTATION

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Purpose: Urological complications are among the most common complications after kidney transplantation. These complications are urinary retention, haematuria, haemorrhage, urinary leakage, vesicoureteral reflux, pyelonephritis and nephrolithiasis. Although neurogenic bladder is one of the indications for kidney transplantation, it is not considered in the literature to be an expected complication after transplantation. In this case, we discussed the nursing care of a patient who underwent kidney transplantation from a living donor and developed neurogenic bladder.

Material and method: A 60-year-old female who underwent kidney transplantation from a living donor, developed neurogenic bladder one year after kidney transplantation. Clear intermittent catheterization treatment was administered for the kidney transplant recipient with neurogenic bladder, and the treatment was stopped due to frequent urinary tract infections. The kidney transplant recipient with neurogenic bladder received sacral neuromodulation treatment.

Findings: The nursing care of a patient with neurogenic bladder after renal transplantation aims to prevent excessive bladder distension, infection, stone formation, vesicoureteral reflux, renal failure, urinary tract damage and incontinence, and to ensure regular and complete discharge of the bladder. The most common treatment modalities for these objectives are permanent or intermittent catheterization, sacral neuromodulation and medical therapy.

Conclusion(s): In the care of the patient with neurogenic bladder after kidney transplantation, nurses should provide appropriate care related to treatment options and bladder training, and plan urination schedules of the patient, and monitor possible complications.

OP-32 SOCIAL SUPPORT PERCEPTIONS AND HOPE LEVELS OF PATIENTS WAITING FOR ORGAN TRANSPLANTATION

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Purpose: The aim of this study is to determine the social support perceptions and hope levels of patients waiting for organ transplantation.

Material and method: The sample of this descriptive study consisted of 136 patients who attended to the dialysis unit of an university hospital in Istanbul between January and May 2017. Data were collected using the Patient Information Form, the Multidimensional Scale of Perceived Social Support and the Herth Hope Scale. Numbers, percentage, median, minimum, maximum, Mann-Whitney-U test, Kruskal-Wallis test and Spearman correlation test were used to evaluate data. P <0.05 value was accepted for statistical significance.

Findings: The mean age of the participants was 49.0±1.15, 55.9% of them were male, 67.6% of them were married, and 41.2% of them were primary school graduates. A statistically significant difference was found between age rates and perceived social support scores. There was a statistically significant difference between participants' marital status, income level, place of living and total hope scores. There was a statistically significant difference between the presence of chronic illness and total hope scores. A statistically significant difference was found between the status of organ transplantation in the family or relatives and perceived social support scores. There was a statistically significant difference between the emotions felt by the individuals in the family or relatives and both the perceived social support and total hope scores. It was found to be a significant weak positive correlation between perceived social support scores and total hope scores.

Conclusion(s): According to this study, the socio-demographic characteristics of individuals waiting for organ transplantation affected their social support perceptions and hope levels. It seems that hope levels increased as social support by family or relatives increased.

OP-33 ETHICAL AND CULTURAL ISSUES IN TRANSPLANTATION: NURSES' VIEWS AND ATTITUDES

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Purpose: To evaluate nurses' views and attitudes about ethical and cultural issues related to transplantation.

Material and method: This was a descriptive study. The study population consisted of 220 nurses who work at a hospital in Istanbul, Turkey between June and August 2018. Data were collected using a questionnaire form included sociodemographic characteristics, ethical-cultural values and knowledge levels about transplantation of the participants. Descriptive statistics and Chi-Square test were used for the analysis of data.

Findings: The mean age of the participants was 24.8 years (SD 6.04) and 80% of them were women. Almost eighty-three percent of them were single, 87.3% of them didn't have children, and 48.6% of them had 0-1 years working time. More than half of the participants (63.2%) received training about transplantation. Nearly 92% of the participants didn't donate organs, 84.1% of them were willing for organ donation, and most of them reported the hospitals as the place where organ donation should be made. A little more than half of them reported that the best ideal candidate for organ donation were a person with brain death, and a healthy person, respectively. About 65% of them didn't have enough knowledge on brain death, and 87.3% of them didn't have knowledge on 3-D printed artificial organs. Most of the participants reported that the most common ethical problem in organ transplantation was the trade of human organs (organ trade). Most of them reported that priority order for organ transplantation were 'patient waiting for a long while for organ transplantation' and 'young patient, respectively. Ninety-one percent reported that organ transplantation in terms of religious and cultural is appropriate, and 67.7% of them reported that organ transplantation in terms of religious and cultural by the Turkish people is not appropriate. Most of them reported that Turkish people think that organ transplantation is not halal in terms of religious. There was a statistically significant difference between marital status, number of children and working time with organ donation. A statistically significant difference was found between having knowledge on brain death and 3-D printed artificial organs with receiving transplantation training.

Conclusion(s): According to this study, nurses generally had positive views and attitudes about organ transplantation. Training programs should be increased to eliminate ethical and cultural issues, and to improve positive view and attitude about transplantation.

OP-34 RELATIONSHIP BETWEEN DEPRESSION AND HEALTHY LIFESTYLE BEHAVIORS OF TRANSPLANT PATIENTS

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Purpose: The purpose of this study was to investigate the relationship between depression and healthy lifestyle behaviors of transplant patients.

Material and method: This was a descriptive study. The study was conducted on 110 transplant patients who attended an university hospital in Istanbul, Turkey. Data were collected using Patient Information Form, Beck Depression Inventory and Healthy Lifestyle Behaviors Scale-II consisting of six sub-scales (health responsibility, physical activity, diet, spiritual development, interpersonal relationships and stress management). Number, percentage, median, minimum, maximum, mean, standard deviation, Mann-Whitney U test, Kruskal-Wallis test and Spearman correlation coefficient were used for data analysis.

Findings: The mean age of the patients was 45.8 years (SD 12.35), 60.9% of them were men, 42.7% of them were primary school graduates, and the mean Body Mass Index (BMI) of them was 26.9 kg/m² (SD 4.84). There was a statistically significant difference between diet sub-scale and BMI. A statistically significant difference was found between ‘the total score of healthy lifestyle behaviors, diet and interpersonal relationships sub-scales’ with education status. There was a statistically significant difference between ‘health responsibility, diet and interpersonal relationships sub-scales’ with marital status. There was a statistically significant difference between health responsibility sub-scale and income status. A statistically significant difference was found between ‘diet, spiritual development, interpersonal relationships and stress management sub-scales’ with living alone or with someone. There was a statistically significant difference between depression scores and time elapsed after transplantation. It was found to be a significant moderate negative correlation between depression and healthy lifestyle behaviors scores.

Conclusion(s): According to results of this study, healthy lifestyle behaviors of transplant patients were affected by factors such as BMI, education status, income status and marital status. Their depression levels decreased as healthy lifestyle behaviors of the transplant patients improved.

OP-35 A THEMATIC ANALYSIS OF THE ORGAN TRANSPLANTATION NEWS IN TURKISH PRESS

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Purpose: Organ transplantation, which is one of the most important developments in medical technology and a successful treatment against irreversible life-organ insufficiency, gives people a second chance of life and increases their quality of life. The aim of this qualitative research was to detect how often organ transplantation news were handled in Turkish press and to analyze the content of these news.

Material and method: The data of this qualitative study were obtained from the first three most widely read newspapers (Posta, Hürriyet, Sabah) in Turkey between January and July 2018. Data were analyzed using thematic analysis. Thematic analysis, which is one of qualitative data analysis technics, was implemented establishing codes and categories.

Findings: When the newspapers were examined, only 17 news texts on organ transplants were obtained during the period of six months. A large proportion of the news (n=13) were obtained from the Sabah newspaper. Most of the news were focused on the emotional reactions of patients and their families and the information on organ transplantation process. Six themes were defined after the data analysis. These themes were; (1) Information on organ transplantation process: Contraindications for organ transplant and awareness of the brain death. (2) Emotional reactions: Difficulties experienced and feelings during the illness and transplant process. (3) Medical knowledge: Information about the risks of pregnancy after heart transplantation, physical diseases which lead to organ transplantation etc. (4) Importance of organ donation: Saving a life with organ donation, decision for organ donation, waiting for organ donation and refusal of organ donation by family members. (5) Organ transplant in Turkey: Birth after the first-time heart transplant in Turkey, organ transplants performed in Turkey and choosing Turkey for organ transplantation. (6) Legal regulation: In one significant example, a law in Mexico ordered that everybody who lost their lives in the country, automatically became an organ donor unless they signed a petition to refuse it.

Conclusion(s): When we looked at the whole content in Turkish press, there was a limited place for organ transplantation. Therefore, it is recommended that in press news, where people access to information easily, more space should be given about the organ transplantation to create awareness on how vital it is for changing some people's lives. And health professionals and journalists need to work collaboratively to reach this aim.

OP-36 USING TECHNOLOGY FOR HOLISTIC NURSING CARE IN ORGAN TRANSPLANTATION

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Purpose: The aim of this review is to integrate technology with holistic nursing care for organ transplant patients.

Material and method: The Literature regarding technology, holistic nursing care and organ transplantation was reviewed.

Findings: The goal of organ transplantation is not only the survival of individuals with the end state organ failure such as liver, kidney and heart failure but also their achievement a good balance between the functional efficacy of the graft and the patient's psychological and physical integrity. Some organ transplant recipients also explain the experience of challenging recovery process, characterized by complex physiological, psychological, social, and spiritual aspects and requiring close assistance from organ transplant health professionals to overcome. Therefore, organ transplant health professionals, especially nurses, play an important role, providing individualized professional assistance to facilitate the adaptation of organ transplant recipients and their families. Nurses should adopt a holistic approach, comprises psychological, biophysical, environmental and politico-economical aspects in organ transplant recipients care. Effective holistic nursing care has an important role in organ transplant recipients' adherence to therapy and the ability to manage their lives. To reach the requested care results technological improvements have an important impact on the holistic nursing care for organ transplant recipients. Technological improvements often used are mobile health (mHealth), telenursing programs. There are a variety of interventions in the organ transplant recipients such as self-care education programs, medication adherence programs, deceased and living donor education programs, physical activity and dietary programs, pre-transplant programs, and post-transplant care programs. The purpose of these programs is specific to their outcomes, but all enable patients to enact behaviours that improve their health. The technology provides interactivity, which offers extra help when people needed. Motivational messages, monitoring, and behaviour change tools used in face-to-face support can be modified for delivery via mobile phones. Interventions can be personalised with the content tailored to the age, sex, and ethnic group of the participant or to the issues they face. They were shown to significantly improve patients' knowledge, self-efficacy, and clinical and behavioural outcomes in a variety of diseases. The use of technology is a promising pathway to ensure holistic nursing care for self-management problems experienced by organ transplant patients. Keywords: Technology, Holistic Nursing Care, Organ Transplantation

Conclusion(s): The use of technology is a promising pathway to ensure holistic nursing care for self-management problems experienced by organ transplant patients.

OP-37 DEVELOPMENT OF LIVER TRANSPLANTATION PATIENTS' DISCHARGE PLAN BASED ON LIVING MODEL

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Purpose: This review aims to develop the liver transplantation patients' discharge plan based on the living model.

Material and method: The literature was reviewed regarding nursing discharge plan and living model for the organ transplant patients.

Findings: Liver transplantation is a very important and successful treatment option for patients with recent acute and chronic liver failure. However, after liver transplantation, the individual has encountered several problems; physical, such as infection, fatigue; psychological, such as anxiety and depression and social such as family relationships. For the coping with these problems, nurses have great responsibilities in ensuring and maintaining good health after discharge. For this purpose, the nurses should prepare an individual discharge plan with a holistic approach. Living Model is an important guide in this sense. With this model, the needs of the individual after liver transplantation can be extensively diagnosed and the most appropriate discharge plan can be prepared. For this reason, this review aims to develop the liver transplantation patients' discharge plan based on the living model.

Keywords: Liver transplantation, discharge plan, Living Model

Conclusion(s): To maintain an effective care for organ transplant patients, nurses should prepare a discharge plan based on a nursing model like the Living Model.

OP-38 HOW DOES THE WEB NEWS APPROACH TO PEDIATRIC TRANSPLANTATION?

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Purpose: In today's world, internet takes place an expansive proportion of individual's lives. Like in the other areas of life, newspapers issue information through paperless cyber environment now. People have new habits and follow news from their favorite websites. Transplantation is an area that still needs to be explained to the society for eliminating misunderstandings and increasing organ donation. Pediatric transplantation, having its own unique challenges, could be introduced to the society by means of internet. Research question of this qualitative study was "How does news websites deal with pediatric transplantation?" and it was aimed to understand current state on news websites.

Material and method: Google News was used for data collection. It was the most popular news search engine as of September 1, 2018 according to SimilarWeb. It provides news from diverse websites including traditional most read newspapers' websites. "Pediatric transplantation, child transplantation, child organ donation" keywords were used to search news between August 31, 2017-August 31, 2018. As a result, 533 regional, national and international news from different countries were reached. Nevertheless, 139 news were excluded, since they were irrelevant. Data were analyzed by the aid of NVivo 12 software and study themes were established.

Findings: 394 news were analyzed in the study. Most of the news were from the USA, remaining were UK, Ireland, Canada, Australia and India etc. Following themes were emerged from data analysis; (1) True life stories of pediatric recipients and donors: News websites reflected transplant issues over the real stories. Within this scope, subthemes were; (a) medical history, (b) emotional and psychological experiences of whole family on both sides, (c) social, art and sport activities before and after transplant. (2) Insufficient organ donation: Nearly all news emphasized lack of enough donor by using (a) statistics and focusing (b) challenges specific to pediatric area, (c) underlying dynamics, and (d) promoting donation. (3) Cost of transplantation: News websites underlined financial expenses and changes of family's life; (a) medical and nonmedical outgoings, (b) financing the hospitals, (c) charity activities, (d) major changes in lives (4) Breakthroughs: News websites tended to give advancement right away, such as (a) scientific improvements (b) complex surgical procedures (c) firsts of hospitals.

Conclusion(s): News websites which were reached by Google News, enlightening the global problems in pediatric transplant. As it turned out, some countries utilized it more effectively. Health professionals were recommended to engaged in website owners to deliver their messages to masses in all countries.

OP-39 HOW CAN WE TAKE THE ADVANTAGES OF MOBILE HEALTH TECHNOLOGIES IN TRANSPLANT NURSING?

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Purpose: Since the first creation of the Internet, its massive use has generated new forms of technology in almost every aspect of life. One of these aspects is health care; internet technologies have initiated major advances in telemedicine and telehealth, now present in every modern health care organization. New possibilities for Mobile Health (mHealth) have arisen by means of the latest advances in mobile communications and technologies. Because of the advances in technology, a new term arises: mHealth, a component of eHealth. With billions of smartphones and tablets around the world, these devices started to be a valuable tool in health care management. The purpose of this study to define benefits of mobile health applications (m Health Apps) in transplant area for reviewing the literature systematically.

Material and method: While this systematic review was conducting, PubMed and Google Academic were used for determining appropriate articles. “Mobile, health, technology, mHealth and transplantation” keywords were used for searching. Seven research articles were reached related to mHealth Apps usage in the care of transplant patients. Authors were studied with adolescents specifically in only one study.

Findings: In transplant area, mHealth Apps were used for, patient education, supporting self-management, providing medication adherence and promoting healthy lifestyle. According to the findings of the seven studies; (1) Patients on the kidney transplant waiting list had high interest for using mHealth to promote physical activity and perceived that technology may be useful in increasing their awareness of eating patterns and how much physical activity they were doing, (2) Adolescents expressed interest in using application for monitoring medications and satisfaction with the automatic messaging between adolescent and caregiver versions of the application, (3) Potential kidney transplant recipients felt that the mHealth Apps improved their knowledge and it was culturally appropriate for their race/ethnicity, (4) A mHealth intervention had a positive impact of on self-management behaviors, (5) Kidney Transplant Candidates had higher knowledge about increased risk donor kidneys, (6) Stable adult kidney recipients had a positive attitude toward the use of mHealth for medication management (7) Lung transplant recipients responded appropriately to mobile technology-based decision support for reporting recorded critical values.

Conclusion(s): mHealth has an important potential to use in nursing care according to available study results. However, there is need for further studies in this area to provide more evidence. Especially, adolescent studies should be developed, since adolescents are more interested in technology and smartphones. These devices might be used in their care successfully.

OP-40 THE VALUE OF IMAGING FINDINGS IN PREDICTION OF MICROVASCULAR INVASION IN HEPATOCELLULAR CARCINOMA

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Purpose: Microvascular invasion (MVI) is an important histopathologic factor for HCC recurrence after liver transplantation. Despite its significance in HCC assessment, MVI can rarely be diagnosed preoperatively. Although some imaging findings such as tumor size, tumor number, increased uptake on FDG-PET/CT have been described, a reliable preoperative indicators of MVI have not been established. The purpose of this study was to determine the utility of some imaging findings in predicting MVI and HCC recurrence risk after liver transplantation.

Material and method: This retrospective study included 123 patients with histopathologically proven HCC at explant. All HCCs were classified as MVI positive (group I) or negative (group II) based on histopathological findings. In each group, following radiologic findings were evaluated by two radiologist: multifocality, largest tumor size, bulging (tumor causing liver capsul expansion), beak sign (the acute angle between the tumor and liver parenchyma), and diffusion restriction on diffusion weighted images (DWI). These findings were compared between the groups by Student's t test. The relation between the parameters and MVI was analysed by using the Spearman's correlation test. To evaluate the diagnostic performance of the findings, receiver operating characteristics (ROC) analysis was performed.

Findings: From total patients 30,1 % had MVI (group I) while 69.9% (group II) had not MVI. Presence of beak sign ($p \leq 0,005$), bulging sign ($p = 0,002$), and diffusion restriction ($p = 0,045$) were significantly more frequent in group I than group II. The beak sign ($r = 0,348$; $p \leq 0,005$), bulging sign ($r = 0,309$; $p = 0,005$), and diffusion restriction ($r = 0,381$; $p = 0,026$) were correlated with presence of MVI. Largest tumor size and multifocality of HCCs were higher in group I than those of group II but the differences were not statistically significant. The best discriminative finding was the beak sign with the best sensitivity of 93,8% and a specificity of 62,5% (area under curve; $0,781 \pm 0,114$; $p = 0,027$).

Conclusion(s): Radiologists and transplant surgeons should be aware of some clue imaging findings especially beak and bulging signs, as these findings may predict the presence of MVI in HCC. These patients might benefit from histologic confirmation of the tumor characteristics through biopsy and subsequent bridging treatment options such as TARE or TACE prior to liver transplantation to reduce the risk of recurrence.

OP-41 BENEFITS OF HYBRID 3D LAPAROSCOPIC DONOR RIGHT HEPATECTOMY(HLDRH) OVER OPEN DONOR RIGHT HEPATECTOMY(ODRH): A PROPENSITY SCORE-MATCHED STUDY AT A HIGH VOLUME CENTER

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Purpose: Although pure or hybrid laparoscopic right donor hepatectomies have been reported to be safe procedures there are very few propensity score matched studies. To compare the outcomes of HLDRH vs ODRH in a propensity score matched analysis.

Material and method: Out of 1845 right lobe LDLTs, 31 donors underwent HLDRH. Stringent donor selection criteria included liver volume <1200cc, Right lobe volume <800cc, GRWR >0.70, Remnant volume >32%, BMI < 28 or LAI >5 with normal liver functions, no big inferior hepatic vein and single right biliovascular pedicle. Laparoscopic technique included 5 ports with 3D vision and consisted right lobe mobilisation, anterior caval dissection, hanging manoeuvre with varying degrees of ipsilateral inflow clamping and hepatic transection till isolation of middle hepatic vein (with or without separate segment 8 vein) or individual significant segment 5/8 veins. Then procedure is converted to open surgery by 12cm short midline incision (standard incision-30cm) and completed as per conventional technique. A propensity score matched (± 0.03) 31 ODRH donors were compared with 31 HLDRH donors for the outcomes with covariates being age, sex, body mass index, haemoglobin, Serum LDL, Serum triglycerides, liver attenuation index, remnant volume and recipient MELD score.

Findings: 1814 underwent ODRH. 31 underwent HLDRH. Donor Mortality, morbidity, Clavien Grade III And IV complications, biliary complications, vascular complications, mean intraoperative blood loss, mean hospital stay, mean VAS score, mean time to oral acceptance and recipient mortality were 0.06% vs 0% ($p > 0.05$), 22.5% vs 9% ($p = 0.034$), 3.3% vs 0.03% ($P = 0.104$), 2.6% vs 0.03% ($p = 0.11$), 0% vs 0%, 182 $\pm$ 43ml vs 161 $\pm$ 52 ml ($p = 0.56$), 5.8 $\pm$ 1.3d vs 4.6 $\pm$ 1.1d ($p = 0.032$), 3.5/10 vs 2/10 ($p = 0.022$), 3d vs 2d ($p = 0.023$) and 8.9% vs 3.2% ($p = 0.07$) in ODRH vs HLDRH respectively. In propensity score matched analysis of 31 ODRH vs 31 HLDRH. the donor Mortality, morbidity, Clavien Grade III And IV complications, biliary complications, vascular complications, mean intraoperative blood loss, mean hospital stay, mean VAS score for pain, mean time to oral acceptance, wound infection rate and recipient mortality were 0% vs 0% ($p > 0.05$), 16% vs 9% ($p = 0.041$), 0.5% vs 0.03% ($P = 0.3$), 1.2% vs 0.03% ($p = 0.61$), 0% vs 0%, 194 $\pm$ 26ml vs 161 $\pm$ 52 ml ($p = 0.45$), 5.3 $\pm$ 1.1d vs 4.6 $\pm$ 1.1d ($p = 0.041$), 3.7/10 vs 2/10 ($p = 0.03$), 3d vs 2d ($p = 0.045$), 6.6% vs 3.2% ($p = 0.14$) and 6.7% vs 3.2% ($p = 0.12$) respectively.

Conclusion(s): Hybrid 3D laparoscopic right lobe donor hepatectomy is as safe as ODRH without added morbidity or mortality and retains the advantages of shorter hospital stay, better cosmesis, lesser pain and earlier recovery.

OP-42 LIVER TRANSPLANTATION AND EARLY CULTURE GROWTH: RISK AND IMPACT?

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Purpose: The purpose of the study is to evaluate the influence of blood, urine, and tracheal suction culture results obtained in ICU at postoperative first day on mortality, graft rejection, duration of mechanical ventilation, ICU stay and to determine the factors effecting growth of microorganisms in cultures.

Material and method: Ethical consent was derived from local ethics committee. Blood, urine and tracheal suction culture results of the patients who underwent liver transplantation at Akdeniz University Hospital and admitted to ICU postoperatively between 2010 and 2016 were evaluated retrospectively. Culture results were interpreted by the academic staff attendant in the Department of Microbiology

Findings: Two-hundred and ten patients were included in the study. Demographic data and most frequent microorganisms isolated from cultures were demonstrated at Table 1 and 2. Mortality and graft rejection were 14.8 % and 9%, respectively. The results of the analysis interpreting the effects of independent risk factors on mortality revealed that mortality was 2.272 fold higher ($p=0.033$) in the patients whose blood, urine and tracheal suction cultures were all positive and 2.988 fold higher ($p=0.025$) in the patients whose blood cultures were positive solely. Tracheal suction ($p=0.064$) and urine ($p=0.025$) culture results were not significantly related with mortality. The incidence of graft rejection were 2.793 fold higher ($p: 0.045$) in the patients who have positive culture results of all three specimens (Table 3 and 4). These patients also had higher ICU stays ($p=0.001$) and mechanical ventilation durations ($p=0.002$) compared with the patients with the patients having no growth in cultures. Incidence of growth were not statistically different between the patients who had cadaveric (92 patients) or living (118 patients) donors ($p=0.993$). The influence of the amount of blood and blood products transfused intraoperatively on the incidence of cultural growth is shown at Table 5. Twenty-eight of the patients who had positive culture results from all specimens were readmitted to hospital within 3 months postoperatively. Hospital stay was not significantly correlated with cultural growth or related mortality and graft rejection (Table 6). Only body mass index (BMI) were found as significant risk factor among others as age, gender, diabetes mellitus and hypertension ($p=0.040$). Microorganism growth in culture was higher in accordance with increasing BMI ($OR=0.897$).

Conclusion(s): Microorganism growth in culture obtained at postoperative Day 1 in the ICU after liver transplantation was related with mortality, graft rejection, duration of mechanical ventilation and ICU stay. Transfusion of blood and blood products intraoperatively, donor type, age, gender and comorbid diseases was not found effective in terms of culture growth. Most significant risk factor in terms of positive cultures was low BMI values. Replicative multicenter studies with large patient series may provide detailed information in terms of reducing mortality and rejection in liver transplant patients.

Table1. Demographics

Gender	%
Female	67 (31.9%)
Male	143 (68.1%)
	Median (min-max)
Age	51 (12- 71)
Height	169 cm (106-185)
Weight	72 kg (21-111)
BMI	25.3 (13.2-38.1)

Table 2. Most frequent pathogens

Culture source	Microorganism	(%)
Blood	A.Boumani	(%13.9)
Tracheal Suction	S. Aurteus	(%27.6)
Urine	E. Faccoli	(%30.0)

Table 3. Determination of independent risk factors for mortality by Cox regression analysis

Specimen Type	Univariate Analysis	
	OR (95 CI %)	p
Blood-Tracheal suction-Urine	2,272 (1,069-4,828)	0,033
Blood	2,988 (1,146-7,792)	0,025
Tracheal suction	2,217 (0,955-5,149)	0,064
Urine	2,528 (0,768-8,319)	0,127

Table 4. Determination of independent risk factors for graft rejection by logistic regression

Specimen Type	Univariate Analysis	
	OR (95 CI %)	p
Blood-Tracheal suction-Urine	2,793 (1,023-7,628)	0,045
Blood	2,979 (0,715-10,948)	0,140
Tracheal suction	1,948 (0,595-6,376)	0,271
Urine	1,123 (0,135-9,378)	0,914

Table 5. Comparison of the amount of whole blood, FFP and PLT transfusion in terms of growth in blood culture

Type of Blood Products	Number of Blood Products		
	Culture Negative	Culture Positive	p
Whole blood	4 (1-25)	4,5 (1-13)	0,467
FFP	8 (1-40)	9 (4-15)	0,288
Platelet	2 (1-7)	2 (1-2)	0,893

Table 6. Correlation of mortality and graft rejection with hospital stay and positive culture results

	Mortality		Graft rejection	
	OR (95% CI)	p	OR (95% CI)	p
Hospital stay*Culture Growth	0,722 (0,204-2,560)	0,614	0,611 (0,116-3,209)	0,561

OP-43 ACUTE KIDNEY INJURY FOLLOWING PEDIATRIC LIVER TRANSPLANTATION

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Purpose: The aim of this study is to evaluate the risk factors for early developing acute kidney injury (AKI) in postoperative ICU following pediatric liver transplantation (LT).

Material and method: After exclusion of re-transplantations; 7 cadaveric and 45 living donors, totally 52 pediatric LT patients that were performed between 2005 and 2017 at Şişli Florence Nightingale Hospital Transplantation Center, were reviewed retrospectively. Pediatric End-stage Liver Disease (PELD), Child-Pugh (CP) and Pediatric Risk of Mortality-III (PRISM-III) scores, hospital length of stay (LOS), ICU LOS, duration of mechanical ventilation (DOMV), long-term mortality, need for vasopressor, fluid balance (ml/kg/day), amount of ascites drained (ml/kg/day), amount of blood products transfused (ml/kg/day), demographic features and biochemical parameters were documented. All the data belongs to the day before AKI developed. AKI was defined according to both pediatric RIFLE and AKIN criterias. Documented data were compared between AKI and non-AKI patients.

Findings: AKI incidence was 9,6% according to both pRIFLE and AKIN criteria. The incidence of AKI requiring renal replacement therapy was 1,8%. Groups were similar with respect to demographic features. PELD (p: 0,01) and PRISM-III (p: 0,01) scores, blood urea nitrogen (BUN) (p:0,001), ascites drained (p:0,02) and red blood cell transfusion (p:0,01) were significantly higher in AKI group than the non-AKI group. Colloid oncotic pressure (COP) was significantly lower in AKI group than the non-AKI group (p: 0,03). There was no significant difference between 2 groups for DOMV, CP score, need for vasopressor, hospital LOS, ICU LOS, long-term mortality and other laboratory parameters (p>0,05).

Conclusion(s): There are many studies about AKI in adult-LT patients. The incidence of AKI in adults was found to be 46% according to the RIFLE criteria. AKI was related with mortality as an independent factor, also related with ICU and hospital LOS and terminated as end-stage disease (56% of AKI) in adults. In this study, none of the AKI developed patients were terminated as end-stage kidney disease and there is no relationship between AKI and mortality in pediatric LT patients. Also AKI has no effect on ICU and hospital LOS in this patient group. We evaluated that the severity of disease, large volume transfusion of blood products, high-flow of ascites and low COP levels as risk factors for AKI; high BUN levels can be predictive for AKI in pediatric patients.

OP-44 SCORING SYSTEMS AND POSTOPERATIVE OUTCOME IN PEDIATRIC LIVER TRANSPLANTATION

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Purpose: The aim of this study is to investigate the predictivity of risk scores (Pediatric End stage Liver Disease-PELD, Child Pugh-CP, and Pediatric Risk of Mortality-PRISM-III) for postoperative period of pediatric liver transplant patients.

Material and method: After exclusion of re-transplantations; 7 cadaveric and 45 living donors, totally 52 pediatric LT patients that were performed between 2005 and 2017 at Şişli Florence Nightingale Hospital Transplantation Center, were reviewed retrospectively. PELD and CP scores were calculated based on blood tests at hospital admission. PRISM-III score was calculated from the data during the first 24 hour of intensive care unit (ICU) admission. Hospital length of stay (LOS), ICU LOS, number of patients developed acute kidney injury (AKI), requirement for inotrop-vasopressor therapy, in-hospital mortality, long-term mortality, duration of mechanical ventilation (DOMV), metabolic disease and demographic features were documented. For CP score; class C was defined as high, A and B as low. Since the values we have included in the analysis for PELD and PRISM-III are already unusual values, we went from bad to worse by calculating a cutoff over these values. According to these cutoff values patients were divided into 2 groups as high and low for each score. Documented data was analyzed and compared in groups for each score. P value <0,05 was considered statistically significant.

Findings: Hospital LOS was significantly longer in high-PELD (p=0,01) and high-CP (p=0,01) groups. ICU LOS was significantly longer in high-PRISM-III group (p=0,01). AKI was developed in 5 patients only from high-PELD group. Requirement for inotrop-vasopressor therapy was significantly higher in high-PELD (p=0,04) group. There was no significant difference between the groups for demographic features, metabolic disease, DOMV and long-term mortality in each score.

		Low risk	High risk	p
Hospital LOS	PELD	17,7±8,9 (n=22)	26±15 (n=30)	0,01*
	CHILD PUGH	19,9±9,5 (n=38)	29,5±19,1 (n=14)	0,01*
	PRISM-III	22,1±17,6 (n=15)	22,6±11,4 (n=37)	0,89
Day				
ICU LOS	PELD	2,8±0,8 (n=22)	3,5±1,6 (n=30)	0,09
	CHILD PUGH	3,4±1,5 (n=38)	2,7±0,6 (n=14)	0,15
	PRISM-III	2,5±0,6 (n=15)	3,5±1,5 (n=37)	0,01*
Day				
AKI	PELD	0	5	0,06
	CHILD PUGH	3	2	0,6
	PRISM-III	1	4	0,97
Developed patients				
Requirement for inotrop-vasopressor therapy (at least one; dopamine or noradrenaline or both)	PELD	4	14	0,04*
	CHILD PUGH	10	8	0,05
	PRISM-III	4	14	0,53
In-hospital mortality	PELD	0	1	0,98
	CHILD PUGH	1	0	0,73
	PRISM-III	0	1	0,98
(exitus in ICU, number of patients)				
Long term mortality	PELD	2	6	0,44
	CHILD PUGH	5	3	0,66
	PRISM-III	1	7	0,40
(After hospital discharge, number of patients)				
Duration of mechanical ventilation (hours)	PELD	7,6±5,3 (n=22)	8,5±9,2 (n=30)	0,67
	CHILD PUGH	8,9±8,6 (n=38)	6,1±4,4 (n=14)	0,25
	PRISM-III	5,9±2,5 (n=15)	9±8,9 (n=37)	0,19

Conclusion(s): There are limited studies evaluating the relationship between scoring systems and outcomes after pediatric LT. Hemodynamic instability and long hospital LOS can be expected in pediatric post-LT patients with high PELD or CP scores, also risk of AKI may be higher for high PELD score patients. PRISM scores were reported as predictive of outcomes and survival in pediatric post-LT patients in previous studies. Unexpectedly PRISM-III score did not have any correlation with the severity of physiologic condition and mortality; PRISM-III score was too far to be a quantitative measure of physiologic instability and mortality in this study.

OP-45 THE ROLE OF HEPATITIS -C VIRAL LOAD ON THE BILIARY COMPLICATIONS AFTER LIVER TRANSPLANTATION

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Purpose: Chronic hepatitis C virus (HCV) infection is a global health problem and the need for liver transplants is ever-growing. For optimal surgical success, risk factors must be identified and HCV viral load must be reduced to a minimum to avoid complications. In this study, we aimed to investigate the role of HCV viral load on the post-transplant biliary complications

Material and method: Between 2004 and 2018, 114 liver transplant recipients with HCV infection were retrospectively reviewed. Data collection included demographic variables, preoperative and postoperative amount of HCV RNA, genotype analysis, postoperative biliary complications in the early and late period. All patients divided into two group regarding the preoperative HCV RNA status [Group A: HCV RNA (+) and Group B (HCV RNA (-)]

Findings: Demographic parameters were similar between groups. There were 45 patients in Group A and 69 patients in Group B. The frequency of Genotype 1 in Group A was 55%. Overall rate of biliary complications was significantly higher in Group A [37% (n=17) vs. 10% (n=7), respectively, $p<0.01$] . Biliary stricture in the late period was also significantly higher in Group A (26% vs 8%, $p<0.05$).

Conclusion(s): The worse effect of biliary complication on patient survival has been confirmed so far and this is mostly evident in those patients with viral etiology. As it was also suggested in our study, HCV viral load should be considered as a predisposing factor for postoperative biliary complications after liver transplantation. New standards of antiviral medications may improve transplant outcomes.

OP-46 INTRAVOXEL INCOHERENT MOTION PARAMETERS FOR ASSESSMENT OF LOCOREGIONAL BRIDGING TREATMENTS EFFICIENCY BEFORE LIVER TRANSPLANTATION

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Purpose: Locoregional bridging treatment options (LRTs) for patients with hepatocellular carcinoma (HCC) on the waiting list of liver transplantation has been shown to improve the survival. The evaluation of response by imaging is essential for further management strategies. The size-based conventional morphologic imaging criteria can be less informative because of difficulty in distinguishing viable tumor from necrotic or fibrotic tissue. Functional MR imaging such as perfusion and diffusion imaging is promising technique for this purpose. Recently, a new diffusion imaging technique, called intravoxel incoherent motion (IVIM) has emerged to calculate microcapillary perfusion of tissues without administration of contrast media. We investigated the utility of this new technique for response assessment following LRTs.

Material and method: In this single-institution retrospective study, 15 patients (11 male and 4 female; mean age $\pm$ SD: $56,30 \pm 4,94$) with HCC who had undergone LRTs [11 TARE (transarterial radioembolization), 4 TACE (transarterial chemoembolization)] were included. In addition to routine upper abdominal MRI sequences, IVIM with 16 different b values (0- 1300 s/mm²) and conventional DWI with 3 different b factors were obtained using a single-shot echo planar spin echo sequence before and 8 weeks after LRTs. MR imaging response was evaluated according to modified Response Evaluation Criteria in Solid Tumors (mRECIST). Quantitatively, the amount of diffusion-changes on IVIM and conventional DWI was also calculated with apparent diffusion coefficient (ADC) and IVIM parameters including mean D (true diffusion coefficient), D* (pseudo-diffusion coefficient associated with blood flow), and f (perfusion fraction) values. Subsequently, comparison of pre- and post-treatment parameters was performed by McNemar test.

Findings: A significant decrease in arterial enhancement was observed according to mRECIST criteria ($-38,43 \pm 16,49$). The ADC and D values after LRTs were significantly higher than those of before ones ($p=0.012$ and $p=0.002$) (mean ADC was $1,00 \pm 0,21 \times 10^{-3} \text{ mm}^2/\text{sn}$ for before LRTs, $1,46 \pm 0,37 \times 10^{-3} \text{ mm}^2/\text{sn}$ for after LRTs; mean D was $0,74 \pm 0,30 \times 10^{-3} \text{ mm}^2/\text{sn}$ for before LRTs, $1,39 \pm 0,31 \times 10^{-3} \text{ mm}^2/\text{sn}$ for after LRTs). The f values following LRTs was significantly lower than those of pre-treatment ($p=0.016$) (mean f was $37,61 \pm 7,99$ for before LRTs; $8,58 \pm 2,66$ for after LRTs).

Conclusion(s): ADC values and IVIM parameters appear to reflect the response of LRTs, as good as mRECIST. Promising new horizons in management of pre-transplant patients especially in renal insufficiency clinical settings owing to elimination of contrast media administration.

OP-47 THE USE OF NON-INVASIVE SCORING SYSTEMS FOR DETECTION OF HEPATIC STEATOSIS IN LIVER TRANSPLANTATION DONOR CANDIDATES

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Purpose: Degree of liver steatosis is an important factor for donor selection in living donor liver transplantation process. Computed tomography (CT) has been used in many transplantation centers to determine donor hepatosteatois. Noninvasive scoring methods based on laboratory tests have been investigated as potential methods for altering liver biopsy and imaging techniques in evaluating hepatosteatois. In this study, we assess the utility of several common non-invasive scoring methods for the evaluation of donor hepatosteatois.

Material and method: Multidetector CT scanning was used as the method of choice for the evaluation of liver steatosis in this study. A total of 205 donor candidates with detectable hepatosteatois were included in the study. Patients were divided into five groups according to the degrees of steatosis measured by CT. Noninvasive APRI, NAFLD fibrosis scores, BARD score and FIB-4 scores were calculated for each patient based on their preoperative body measurements and laboratory results. Scores were compared with steatosis findings on CT scans through the use of receiver operating characteristics (ROCs).

Findings: APRI (AST-Platelet Ratio Index) showed the best diagnostic performance for prediction of for all degrees of hepatosteatois ($p<0,01$). The BARD score showed the second best performance for all degrees of steatosis except for the twenty-percent steatosis group ($p=0,018$). FIB-4 and NAFLD fibrosis scores did not appear statistically relevant for the detection of liver steatosis levels.

Conclusion(s): Non-invasive scoring methods such as APRI and BARD score may be useful for the detection of hepatic steatosis in donor candidates and may reduce the need for other invasive and costly diagnostic techniques.

OP-48 A SUCCESSFUL LIVER TRANSPLANTATION WITH HCC INCLUDED INTO MILAN CRITERIA BY TACE AND MWA

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Abstract: Liver transplantation is a treatment option for patients in almost all forms of end-stage liver failure. In this case study, we aimed to introduce a successful case of liver transplantation with hepatocellular carcinoma which was included into Milan criteria by bridging treatment such as Transarterial chemoembolization (TACE) and microwave ablation (MWA) not resection directly.

The recipient was a 63-year-old woman with a history of cirrhosis and hepatocellular carcinoma. She admitted to our clinic at the year of 2015. Laboratory and imaging examinations were performed. Abdominal ultrasonography revealed a 72x52 mm sized hypoechoic heterogeneous structure and a solid lesion with intense vascular signal from the periphery and within the right lobe. CT revealed a well-circumscribed, hypodense mass lesion approximately 7 cm in diameter with inferior exophytic extension at hepatic segment 6. At the liver transplant council, Transarterial chemoembolization (TACE) and microwave ablation (MWA) as a bridging treatments were decided to patient before liver transplantation. After the six month follow up Computerized tomography of the patient which was having TACE and MWA treatment revealed as; at the level of liver segment 6, 50x46 mm, hypodense mass lesion was observed in which thickening of the dynamic series revealed no enhancement, and calcification was detected in the wall, which contains cystic spaces in places. A cadaveric liver transplantation was performed without any complications at March, 2017. After a successful liver transplantation there is no recurrence was seen at her 18-month post-transplantation follow-up. This case shows that bridging treatments offer liver transplantation opportunities to patients.

OP-49 THE UTILITY OF POLYETHYLENE TEREPHTHALATE (DACRON) VASCULAR GRAFTS FOR VENOUS OUTFLOW RECONSTRUCTION IN LIVING-DONOR LIVER TRANSPLANTATIONS

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Purpose: Venous outflow reconstruction of modified right-lobe liver grafts has been shown to prevent the occurrence of graft congestion and subsequent complications, including graft loss. Various types of grafts, such as cryopreserved venous grafts, donor or recipient autologous veins, and PTFE grafts are currently used for reconstruction. As Polyethylene Terephthalate (Dacron) grafts allow the transplant surgeon to perform Y-shaped graft, adjust the size, avoid infection, feasible suturation and graft anastomosis. In the present study, we aimed to investigate the safety and efficacy of Dacron grafts for venous reconstruction during living donor liver transplantation (LDLT).

Materials and Methods: Between January 2016 and January 2018, Dacron grafts were used in 148 liver transplants. Of these, 104 patients who had a follow-up computerized tomography (CT) scan on the postoperative day 7 (± 1) were enrolled into the study. A total of 179 outflow hepatic veins including V5, V8, partial middle hepatic vein, and accessory right hepatic veins (ARHV) were reconstructed using synthetic Dacron grafts. Graft patency was evaluated both peri-operatively with ultrasound following anastomosis and, again, one week after the transplant by follow-up CT by an experienced transplant radiologist. Retrospective data collection included demographics, parameters for small-for-size [laboratory tests (bilirubin, INR) and ascites], postoperative morbidity and mortality. Findings: Follow-up CT revealed graft patency in 155 out of 179 (86.6%) vascular grafts. Patency rates for each vein were as follows: V5 – 87.5% (70/80), V8 – 87.7% (50/57), partial middle hepatic vein – 100% (11/11), ARHV – 77.4% (24/31). No major graft-related complications (early graft dysfunction, graft infection) or mortality were observed. None of the recipients developed small-for-size syndrome based on laboratory tests and other clinical findings. Conclusions: The use of Dacron vascular grafts appears as a safe and advantageous alternative option for venous outflow reconstruction in LDLT.

OP-50 DOES MULTIPLE BILE DUCT ANASTOMOSIS IN LIVING DONOR LIVER TRANSPLANTATION AFFECT THE POSTOPERATIVE BILIARY COMPLICATIONS?

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Purpose: The variation of multiple bile ducts in a living donor graft can be encountered frequently but the impact of the number of bile ducts on the postoperative biliary complications is scarce. We aimed to investigate the role of the multiple bile duct anastomosis in the postoperative period in patients with living donor liver transplantation (LDLT).

Methods: Between January 2016 and January 2018, all patients who underwent LDLT were reviewed considering the number of biliary ducts. All patients were divided into two groups regarding the bile duct anastomosis [single (Group A) or multiple ducts (Group B)], those with three bile ducts (n=7) were excluded. Data collection included demographic features, Child Pugh Score (CPS), Graft -recipient weight ratio (GRWR), surgical data including type of biliary anastomosis; [duct-to-duct (DD), duct-to-sheet (DS)- double duct-to-duct (dDD), hepaticojejunostomy(HJ)] and postoperative period (morbidity (biliary complications) / mortality) were collected. Results: There were 78 patients in Group A and 94 patients in Group B. In terms of biliary anastomotic techniques, dDD and DS were significantly higher in group B while DD anastomosis was the mostly performed biliary anastomosis in Group A. Operating time was slightly higher in Group B (438 ± 72 min vs 420 ± 61 min, $p=0.05$). The frequency of splenic artery ligation and packed red blood cell transfusion, and hospital stay were similar. Regarding biliary complications (n=44, 25.5%); both the rate of biliary leakage (n=19, 11%) and stricture (n=27, 15%) were similar in both groups ($p=0.077$ and 0.396 respectively). CPS was positively correlated OR: 22.223), whereas $GRWR \leq 0.8$ was negatively correlated (OR:12.535) with biliary stricture. Increased risk for bile leakage was observed with younger donors (OR:0.926). Although overall mortality rate was 9.8 % (n=17), only five of the patients (29%) died due to biliary complications. Conclusion: In case of single duct, DD anastomosis was optimal, whereas multiple bile ducts require more time to perform and complex anastomosis such as dDD and DS regarding the distance between ducts. CPS, GRWR and donor age were found as risk factors for postoperative biliary complications. Mortality was not mostly based on biliary complications.

OP-51 SIGNIFICANT COHORT OF NON-ALCOHOLIC FATTY LIVER DISEASE WITH PORTAL VEIN THROMBOSIS IN TRANSPLANT WAITING LIST

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Purpose: To characterize non-alcoholic fatty liver disease (NAFLD) presentation with esophageal varices.

Material and method: We carried out a retrospective cohort study on 258 patients with esophageal varices at a single tertiary referral center. These patients underwent diagnosis of several liver diseases, including: NAFLD-associated cirrhosis, hepatitis B, hepatitis C, Wilson disease, autoimmune liver diseases, and others.

Findings: Of the 258 patients, 39% of patients exhibited esophageal varices due to NAFLD-associated cirrhosis. Of the 38 (14.7%) patients developed hepatocellular carcinoma during follow-up, 52% were due to hepatitis B, 26% due to hepatitis C and 13.2% due to NAFLD. Of the 258 patients, 50.0% with NAFLD, 33.3% with hepatitis B, 26.3% with hepatitis C, and 58.3% with other diseases were alive at the end of the 5-year period with a significant difference according to the Kaplan-Meier log Rank test ($P = 0.040$). Portal vein thrombosis was detected in 47.5% of patients with NAFLD, in 29% of patients with hepatitis B, in 17% of patients with hepatitis C, and in 62% of patients with other related diseases ($P < 0.0001$).

Conclusion(s): Our study showed a proportionally greater elevation in liver transplant candidacy in patients with NAFLD and portal vein thrombosis. Older patients were more prone to developing cirrhosis, hepatocellular carcinoma and a high mortality rate. However, younger patients exhibited more portal vein thrombosis and gastric varices.

OP-52 LDLT FOR HIGH MELD RECIPIENTS FROM A SINGLE EGYPTIAN CENTER; A CALL FOR IMPLEMENTING DECEASED DONATION

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Purpose: living donation is the official program of organ transplantation till now in Egypt. In a trial to convince authorities/community to implement deceased donation in Egypt; we analyzed the outcome of LDLT in high MELD score patients.

Material and method: A retrospective analysis of our database in Cairo university from 2014 till 2017 was done. Sixty-four recipients with liver cirrhosis (4 females and 43 males) were transplanted. All transplants were LDLT; as it is the only legal program of solid organ transplantation in Egypt, till now. Recipients were divided according to their MELD score. Group1(G1) included 47 patients with MELD <20 and G2 included 17 patients with MELD > 20. Comparison regarding the demographic data, duration of ICU stay, and 6 months survival rate were done. For more demonstration, G2 was further subdivided into G2a including 15 recipients with MELD 20-25, and G2b including 2 recipients with MELD >25. Table (2) and fig. (3) show a closer look at the impact of MELD score on recipient mortality.

Findings:It should be noted that most of the recipients were HCV patients (87%). This is in accordance with the high prevalence of HCV in Egypt. Data showed a decreasing survival rate with higher MELD scores. The 6 months survival was 36/41(76.6%) for G1, 15/21(71.4%) for G1a, 0/2(0%) for G2b. However, the difference was not statistically significant. This could be attributed to the small number of patients in G2b. Recipients with higher MELD scores showed longer ICU stay but the difference was not statistically significant (p value=0.69). Only 2 recipients with a MELD > 25 were transplanted and both died in the first month after transplantation. Although the number of patients is not enough to draw a line or make a consensus; results led to reluctance of our team to transplant recipients if their MELD score is >25.

Conclusion(s):Recipient mortality increases with higher MELD score in LDLT program in our center. LDLT for recipients with MELD more than 20 may be a risk factor for longer ICU stay and early posttransplant mortality. The higher early posttransplant mortality in recipients with MELD more than 25 makes deceased donation a more suitable solution to improve their outcome and survival. We recommend repeating the study with inclusion of other centers and with correlation with the timing of transplantation and GRWR.

OP-53 FIBROSIS REGRESSION BY ARFI/H.A POST DAAS FOR HCV POST LTX

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Purpose: Liver fibrosis progression in recurrent hepatitis C virus infection is accelerated after liver transplantation with variable methods of assessment of such fibrosis. The main aim of the study is to identify the reliability of non-invasive methods (ARFI @ hyaluronic acid (HA)) for assessment of liver fibrosis post liver transplantation with HCV recurrence and the possible fibrosis regression post DAAs therapy.

Material and method: 39 patients who were eligible for treatment of hepatitis C virus recurrence post liver transplantation were enrolled. They were subjected to demographic, clinical, laboratory assessment and abdominal ultrasound. APRI, FIB-4, ARFI, hyaluronic acid (HA) and matrix metalloproteinase-2 were assessed for all patients and compared with fibroscan results.

Findings: Out of 39 patients who were enrolled, 92.3 % were males. The mean age was 51.21±6.91 years. 23 % (9/39) of patients had significant liver fibrosis (≥ F2) as evident by Fibroscan. In the pre-treatment setting APRI, FIB-4, ARFI and HA showed good diagnostic performance in prediction of significant fibrosis with AUR 0.907, 0.839, 0.936 and 0.837 for the cutoffs 0.849, 2.44, 1.315 m/sec and 153.2 ng/ml respectively. In the post treatment setting, HA showed the best AUR 0.919 for the cutoff 88.6 ng/ml with sensitivity 77.8% and specificity 96.7% in prediction of significant fibrosis. There was significant regression of the values of ARFI and Hyaluronic acid post HCV treatment by DDAs.

Conclusion(s): APRI, FIB-4, ARFI and HA are reliable diagnostic tools for assessment of significant liver fibrosis in the setting of HCV recurrence post liver transplantation. ARFI and HA can predict fibrosis regression after DAAs therapy of HCV recurrence post LT and hence wide application of these non-invasive methods should be encouraged. Acknowledgment: Cairo university liver fibrosis center, STDF grant, project ID 5274

OP-54 LIVER GRAFT VOLUME ESTIMATION BY MANUAL VOLUMETRY AND SOFTWARE-AIDED INTERACTIVE VOLUMETRY: WHICH IS BETTER?

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Purpose: Estimation of graft volume is critical in living donor liver transplantation (LDLT). In this study, we aimed to evaluate the accuracy of estimated graft size for living-related liver transplantation that was done by radiologist and surgeon.

Materials and Methods Forty-one donors (27 male; 14 female) with a mean age of 28.4 ± 6.6 years) underwent contrast-enhanced CT prior to graft removal for LDLT. A liver transplant surgeon determined the weights of liver grafts using automated Myrian 3D volumetry software and also an abdominal radiologist specializing in liver imaging independently and blindly used the commercial interactive volumetry-assist software on a viewing workstation to determine the liver volume on CT images. Both results were then compared to the weights of actual grafts obtained during surgery. Intra-class correlation coefficients were used to assess the consistency of numerical measurements and Pearson correlation coefficients were calculated to detect a linear relationship between numerical variables. Z test was used to compare correlation coefficients. Results: Regarding the right and left lobe graft volume estimation by the surgeon, there was positive correlation between the results and actual graft weights ($r=0.834$, $p=0.001$ and $r=0.587$, $p=0.001$, respectively). Likewise, graft volume estimation by the radiologist for the right and left lobe was also positive correlated with the graft weights ($r=0.819$, $p=0.001$ and $r=0.626$, $p=0.001$, respectively) (Table 1). There was no significant difference between correlation coefficients ($P = 0.836$) (Figure 1 a-b).

Conclusion: CT-volumetry performed by a transplant surgeon using Myrian software can predict accurately graft size for LDLT compared with conventional CT volumetry performed by the radiologist. Both methods are effective for estimation of the liver graft volume without any obvious differences. Table 1. Univariate linear regression analysis to predict right lobe graft weight by surgeon (Myrian) and radiologist (Siemens) Independent variables Unstandardized Coefficientsa Standardized Coefficientsa P R Square B Std. Error Beta Myrian(surg) right 0.843 0.089 0.834 0.001* 0.696 Siemens(rad)right 0.763 0.085 0.819 0.001* 0.671 a. Dependent variable: Graft weight * Significant at 0.05 level

OP-55 GENERAL CHARACTERISTICS OF LIVING DONORS IN LIVER TRANSPLANTATION: SINGLE CENTER DATA FROM TURKEY

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Purpose: Living donor liver transplantation (LDLT) is commonly performed in Turkey. Nearly 80% of all liver transplants are from living donors. Donor candidates should be carefully evaluated before the procedure. Our aim was to assess the general characteristics of living donors in Turkey

Material and method: Ankara University Liver Transplantation Database was used for this analysis. Nearly 200 donor candidates were evaluated between April 2013 and May 2018 at Ankara University. LDLT was performed to 107 patients with appropriate donors. In this study, laboratory, clinical and demographic characteristics of all living donors studied. All donors had been evaluated by several imaging modalities. The steatosis status, bile duct anatomy, vascular anatomy were analyzed and Hospital stay of donors and postoperative course were also evaluated.

Findings: The patients received livers mainly from first degree relatives (%67) and second degree relatives (%20). Number of non-related donors was only 4 (4%). Of the 107 living donors 70 were male and 37 female. The median age of donors was 31.5 (18-59) years. Only 3 donors were older than 55. Survival did not differ in patients who have >40 years and <40 years of age donors (p:0.8). All donors except one were HBsAg negative and 7 were anti-Hbc positive. On ultrasonographic and/or BT examination, 27 donors had 6-30% steatosis. Of them, we performed biopsy in 18 for confirmation. In the last year, using MR spectroscopy for steatosis evaluation decreased the need for biopsy. Median hospital stay was 8 (6-25). Left lob ratio was less than 30% in 20 patient (18%) and hospital stay time was not different in these patients. There was a trend for elevated bilirubin levels in donors with left lobe ratio < 30% (mean maximum bilirubin 4.67 vs 3.65 mg/dl; p:0.15). Biliary complication developed in 5 patients and 1 needed intervention. Other complications need to be considered were pneumothorax (n:1), intrabdominal bleeding (n:1), deep vein thrombosis (n:2) and pulmonary emboli (n:1)

Conclusion(s): Donor selection is a dynamic and multidisciplinary process. If done properly, LDLT is safe procedure for the donors. When necessary, marginal donors can be used.

OP-56 DO CRITERIA ALWAYS TELL THE TRUTH ? (ASSESSMENT OF HCC CASES IN OUR LIVER TRANSPLANTATION SERIES)

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Purpose: Worldwide, hepatocellular carcinoma(HCC) is the fifth most common cancer in men and seventh in women. Although there are several treatment options, liver transplantation is the preferred treatment approach for cirrhotic patients falling within some well defined criteria.

Material and method: Between September 2006 and December 2017, 1066 liver transplantations were performed for 1026 patients. A total of 208 patients underwent orthotopic liver transplantation(OLT) for HCC at our institute. We retrospectively analysed the results of these operations and examined the postoperative courses of the patients.

Findings: Total number of HCC cases was 208 but 191 of them were included in the study. 156(%82) were male and 35 were female. Type of OLT was cadaveric in 65 cases and living related in 126 cases. Etiology in the majority of the cases were hepatitis B virus(HBV) infection(%52) and hepatitis C virus(HCV) infection(%17). General survival was %79,1 whereas 5 year survival was %76,2. Recurrence occurred in 26 cases. The tumors of 115 patients were within Milan criteria and 5 year survival rate was %79,1 in this group. 45 cases were out of Milan criteria and 5 year survival rate was %63,2. The tumors of 137 patients were within University of San Francisco(UCSF) criteria and 5 year survival rate was %81,2 whereas 54 cases did not meet these criteria but had a 5 year survival rate of %64,5.

Conclusion(s): Treatment of HCC is evolving. Transplantation remains the major surgical option for cirrhotic patients. With a better understanding of the biology of the disease, better selection could be possible for the OLT candidates.

OP-57 COMPASSION FATIGUE, PROFESSIONAL QUALITY OF LIFE, AND PSYCHOLOGICAL ENDURANCE AMONG ORGAN TRANSPLANT COORDINATORS

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Purpose: Organ transplant coordinators are closely involved with patients in intensive care units, they empathize with the suffering of their patients, communicate with their relatives, help patients and relatives diagnosed with organ failure, and thus get affected by the experienced traumas, which increases their risk of compassion fatigue. It is thought that the experienced compassion fatigue is related to the quality of life and psychological endurance of the individuals. This study was conducted to determine the effect of compassion fatigue on the organ transplant coordinators and to reveal their relationship with professional quality of life and endurance.

Material and method: This descriptive study was carried out between November 2017 and March 2018 among organ transplant coordinators working in Turkey. Out of the total 187 coordinators, 91 (48.6%) agreed to participate. Data collection was performed via a demographic information questionnaire, the 24-item Compassion Scale developed by Pommier, the 30-item Professional Quality of Life (ProQOL) Scale developed by Stamm, and the 33-item Psychological Endurance Scale developed by Friberg et al.

Findings: Among the compassion subscales, the highest mean scores were in the Kindness subscale, while the lowest mean scores were received from the Indifference subscale. In the ProQOL, the Compassion Satisfaction subscale received the highest scores. The scores of the Psychological Endurance Scale were also high. There were statistically significant, weak to moderate correlations between all compassion sub-dimensions with absolute values of correlation coefficients (r) ranging from 0.260 to 0.690 ($p < 0.05$). There was a significant positive correlation between the Burnout and Compassion fatigue/traumatic stress subscales of the ProQOL ($r = 0.660$; $p < 0.001$) (Table 1).

Conclusion(s): These results demonstrate that ProQOL and psychological endurance are essential determinants of compassion fatigue among organ transplant coordinators. We suggest that correcting the working quality of organ transplant coordinators will reduce compassion fatigue and increase their psychological stability.

Table 1: Correlations between the study variables.

Compassion Fatigue Scale	1 (r, p)	2 (r, p)	3 (r, p)	4 (r, p)	5 (r, p)	6 (r, p)
<i>Kindness (1)</i>						
<i>Indifference (2)</i>	-0.532 <0.001					
<i>Common Humanity (3)</i>	0.326 0.002	-0.324 0.002				
<i>Disengagement (4)</i>	-0.498 <0.001	0.593 <0.001	-0.330 0.001			
<i>Mindfulness (5)</i>	0.526 <0.001	-0.43 <0.001	0.472 <0.001	-0.486 <0.001		
<i>Separation (6)</i>	-0.565 <0.001	0.690 <0.001	-0.262 0.012	0.578 <0.001	-0.260 0.013	
ProQOL						

<i>Compassion satisfaction (7)</i>	0.527	-0.401	0.337	-0.368	0.556	-0.277
	<0.001	<0.001	0.001	<0.001	<0.001	0.008
<i>Burnout (8)</i>	-0.305	0.365	-0.209	0.222	-0.341	0.178
	0.003	<0.001	0.047	0.035	0.001	0.091
<i>Compassion fatigue/traumatic stress (9)</i>	-0.006	0.229	-0.074	0.231	-0.119	0.204
	0.953	0.03	0.487	0.028	0.262	0.054
Psychological Endurance Scale						
<i>Psychological Endurance (10)</i>	-0.329	0.133	-0.197	0.187	0.315	0.137
	0.002	0.212	0.063	0.078	0.002	0.198

ProQOL: Professional Quality of Life Scale

OP-58 CHALLENGES FACED BY ORGAN TRANSPLANT COORDINATORS IN BRAIN DEATH DIAGNOSTIC PROCESS IN TURKEY: A NATIONAL SURVEY

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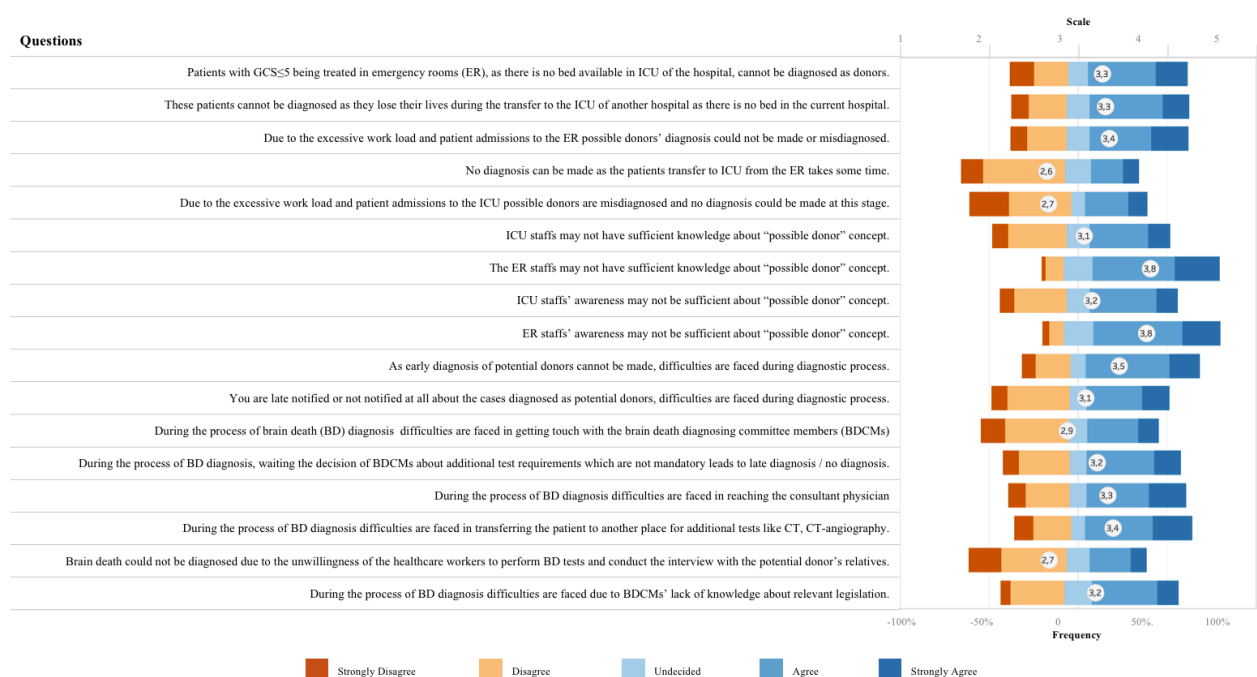
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Purpose: This survey was conducted to assess the current practices and challenges faced by organ transplant coordinators (OCTs) in brain death diagnostic process. In this study, it is aimed to determine the problems encountered during brain death diagnostic process by all the OCTs working in Organ and Tissue Coordination Centers in the hospitals of our country; for this reason, the problems in detecting possible and potential donors in emergency services and intensive care units were questioned.

Material and method: A 37-item survey assessing current practices, and difficulties encountered by coordinators was sent to 9 coordination center regions, consisting 168 OCTs. Survey questions are five-point Likert scale, and aimed to reveal personal information of the coordinators, the process of brain death diagnosis and the source of the problems encountered during this process.

Findings: A total of 168 organ transplant coordinators commenced the web questionnaire. The survey response rate was 39.3% (168 of 427), with a 99,47% survey completion rate. The questionnaire was found to be valid and reliable with an overall Cronbach's alpha of 0.928. 45% of the respondents are working as OCTs in transplantation centers.

Figure 1. Survey questions and responses



Conclusion(s): Our findings demonstrate that some of the patients pass away before brain death diagnosis is made due to excessive work load of emergency departments (ER) and no availability in the intensive care units (ICU). Health care personnel working in ERs do not have enough knowledge and awareness about "possible donor" concept. "Potential donor" diagnosis is delayed in ICUs. During the brain death diagnosis process difficulties are encountered in getting in touch with the brain death diagnosing committee members and getting done the required additional tests. Committee members have lack of information about relevant legislation.

OP-59 EARLY DETECTION OF BRAIN DEATH USING THE CEREBRAL STATE MONITORING.

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Purpose: The aim of the work was to evaluate the accuracy of Cerebral State Index (CSI) monitoring for the diagnosis of brain death (BD) in severely comatose patients.

Material and method: The prospective study included 50 severely comatose patients aged 18 to 85 years (57(48,5;62)) (7 or less points by Glasgow Coma Scale) admitted to the intensive care units of Mogilev Region with intracerebral hemorrhage, head injury or postanoxic coma. The patients were divided into 2 groups: the 1st group included patients who have been diagnosed with brain death, and the 2nd group – patients without BD. Each patient was examined for the cerebral state index (CSI). CSI was recorded before BD determination (1st group), or every day during the hospitalization in the ICU until the death of the patient or until 8 or more points by Glasgow Coma Scale (2nd group). Where necessary, clinical brain death was confirmed by EEG or cerebral angiography.

Findings: The CSI values were 0(0;0) points in 25 patients of the 1st group, and the BD was determined with neurological examination in each patient. The CSI values in the 2nd group was 72,0(45;88). In 6 patients in the 2nd group, after 2-4 days, brain death was determined (CSI – 43,0(21;92)).

Conclusion: CSI monitoring is a safe, simple method that is easy to interpret. It can help in clinical evolution and the decision of the BD moment.

OP-60 ATTITUDES OF TURKISH SOCIAL MEDIA USERS TOWARD ORGAN DONATION

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Purpose: The purpose of study was to assess Turkish social media users toward organ donation.

Material and method: The descriptive study's data were collected via Google Survey from participants. Google Survey included sociodemographics, evaluating information and The Organ Donation Attitude Scale. A self-administrated questionnaire was distributed online randomly on facebook networks in July-August in 2018. Google Analytics and SPSS 22.0 was used to evaluate the outcomes. Of the total 2484 participants, only 152 met the criteria. The response rate of questionnaire was 93.89%. Descriptive statistic and correlation analyses were used.

Findings: Age mean of the respondents were 45.30 ± 11.76 , most respondents were women (53%), were married (73.7%), had one children (40.9%), graduated from an university (45.4%), and living in İzmir (67.10%). They achieved mean scores of 110.80 ± 22.91 and 29.19 ± 22.62 for positive and negative items, respectively, on the scale. The mean scores for humanity and moral conviction, fears of medical neglect, and fears of bodily mutilation were 14.30 ± 10.70 and 14.88 ± 11.98 . A weak but negative correlation occurred between the age mean and negative attitude about organ donation ($r = -0.16$, $p > .05$). The rate of those who accepted an organ belonging to an animal was 95.4%. The rate of participants who were not willing to give organ was 76.5% by taking a money their family. In the event of brain death of one of his family members, 62.4% of respondents stated they would donate their organs. 23.73% of participants stated that they had organs that they would never consider donation. They stated that they did not consider donating their eyes with a rate of 15.1%. 54% of respondents were unstable to sign an organ donor card, but they were willing to donate their organs. 11.2% of participants had an organ donation card. 61.8% of respondents knew that the Organ Donor Registration System in Turkey. 62.3% of participants believed that family approval is a necessary for organ donation after brain death.

Conclusion(s): Our study showed that Turkish social media users attitudes toward organ donation was positive, but the rate of participants had organ donation card was rarely, and they believed that family approval was a necessary for organ donation after brain death.

OP-61 BRAIN DEATHS AND DONORS IN AN EDUCATIONAL AND RESEARCH HOSPITAL

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Purpose: In this study, the causes of brain death, the tests used, the parental acceptance rates of organ donations, and the proportion of organs donated in intensive care units of an education and research hospital over the past seven years were examined.

Material and method: After the approval of the ethics committee, archival records of patients diagnosed with brain death in our hospital between 01.01.2012 - 31.07.2018 were examined retrospectively. The demographic characteristics of the cases such as age, gender, hospitalization, and the length of time to diagnose brain death, additional tests administered, donor organ donation rate, donor ratio, number of organs removed and time to diagnosis of non-donor brain death were recorded. Patients receiving CPR after cardiac arrest were enrolled, even though they were not donors after brain death. Statistical analysis of the study was performed using the SPSS statistical program.

Findings: In our study in recent years it has been found that there is a decrease in the number of cases of brain death and the number of donors. An other finding is also that the tests used in the diagnosis of brain death show uneven increase and/or decrease over the years. It has been found that CPR in cardiac arrest after brain death still continues with decreasing. The results are indicated in Tables 1, 2, 3, 4.

Table 1. Causes of brain death

	n , (%)
Intracranial hemorrhage (spontaneous)	92 (43,8)
Intracranial hemorrhage (trauma)	16 (7,6)
Intracranial hemorrhage + Aneurysm (Endovascular surgery)	24 (11,4)
Ischemic serebrovaskular event	30 (14,3)
Ischemic + hemorrhagic serebrovaskular event	7 (3,3)
Cardiac arrest	19 (9)
Intracranial mass	17 (8,1)
Other	5 (2,4)

Values are given as number (%).

Table 2. Demographic and brain death diagnosis data

	n=210
Age	55,13 ± 17,5
Gender (n=210) M F	116 (55,2) 94 (44,8)
Spontaneous breathing at admission (n=210) YES NO	183 (87,1) 27 (12,9)
GKS at admission (median) (n=202)	9 (7)
Sedation at admission YES NO	8 (3,8) 202 (96,2)
New cranial surgery YES NO	48 (22,85) 162 (77,15)
CPR after brain death YES NO	100 (47,6) 110 (52,4)
BD day	8,2 ± 11,4
Total LOS (day)	10,2 ± 11,9
LOS after BD (day)	2 ± 2,2
Number of cases according to intensive care type	
G-ICU	108 (51,42)
N and NS-ICU	90 (42,85)
O - ICU	12 (5,71)
Diagnostic method (n=210)	
Clinic	50 (23,8)
Clinic + Angiography	27 (12,85)
Clinic + TCD USG	22 (10,47)
Angiography	20 (9,52)
TCD USG	7 (3,33)
Angiography + TCD USG	1 (0,47)

M; male, F; female, GKS; glaskow coma scale, CPR; cardiopulmoner ressusitation, BD; brain death, LOS: length of stay, G-ICU; General Intensive Care Unit, N and BS- ICU; Neurology and Neurosurgical Intensive Care Unit, O-ICUTCD; Other Intensive Care, TCD USG; Transcranial dopler USG,

Values are given as mean ± SD, number (%), median (interquartile range).

Table 3. Evaluation of brain death data according to years

	2012	2013	2014	2015	2016	2017	2018 July
Number of cases according to intensive care type (n=210)	42	47	41	29	14	20	17
G-ICU	15 (35,71)	25 (53,19)	22 (53,65)	16 (55,17)	8 (57,15)	10 (50)	12 (70,6)
N and NS-ICU	23 (54,76)	18 (38,29)	18 (43,90)	12 (41,38)	6 (42,85)	10 (50)	3 (17,64)
O - ICU	4 (9,52)	4 (8,51)	1 (2,43)	1 (3,45)	0 (0)	0 (0)	2 (11,76)
Case/Bed ratio	0,52	0,58	0,51	0,36	0,17	0,24	0,20
G-ICU	0,39	0,65	0,57	0,42	0,21	0,26	0,31
N and NS-ICU	1,91	1,5	1,5	1	0,5	0,71	0,21
O - ICU	0,13	0,13	0,03	0,03	0	0	0,06
Family permission	9 (21,42)	16 (34,04)	4 (9,7)	10 (34,48)	5 (35,71)	2 (10)	3 (17,64)
Number of patients as donors	8 (19,04)	13 (27,65)	4 (9,7)	8 (27,58)	3 (21,42)	1 (5)	3 (17,64)
Number of donor organs (piece)	34	63	24	34	8	6	11
Kidney	2 (5,88)	2 (3,17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Cornea	2 (5,88)	3 (4,76)	1 (4,16)	1 (2,94)	0 (0)	1 (16,66)	0 (0)
Liver	8 (23,52)	11 (17,46)	5 (20,83)	7 (20,58)	2 (25)	1 (16,66)	1 (9,1)
Heart	14 (41,17)	23 (36,50)	10 (41,66)	14 (41,17)	2 (25)	2 (33,33)	6 (54,54)
Lung	8 (23,52)	24 (38,09)	8 (33,33)	12 (35,29)	4 (50)	2 (33,33)	4 (36,36)
CPR after brain death	23 (54,76)	22 (46,80)	25 (60,97)	8 (27,6)	7 (50)	11 (55)	4 (23,5)
G-ICU	8 (53,33)	11 (44)	10 (45,45)	1 (6,25)	4 (50)	1 (10)	1 (8,3)
N and NS-ICU	12 (52,17)	10 (55,55)	8 (44,44)	7 (58,33)	3 (50)	10 (100)	2 (66,66)
O - ICU	3 (75)	1 (25)	1 (100)	0	0	0	1 (50)
Diagnostic method (n,%)							
Clinic	0 (0)	2 (4,25)	1 (2,43)	7 (24,13)	1 (7,14)	3 (15)	6 (35,29)
Clinic + Angiography	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)
Clinic + TCD USG	23 (54,76)	8 (17,02)	3 (7,31)	2 (6,89)	8 (57,14)	4 (20)	2 (11,76)
Angiography	19 (45,23)	15 (31,91)	5 (12,19)	10 (34,48)	0 (0)	2 (10)	7 (41,17)
TCD USG	0 (0)	21 (44,68)	27 (65,85)	8 (27,58)	5 (35,71)	8 (40)	2 (11,76)
Angiography + TCD USG	0 (0)	1 (2,12)	5 (12,19)	2 (6,89)	0 (0)	2 (10)	0 (0)
Total number of beds	80	80	80	80	80	82	82
G-ICU	38	38	38	38	38	38	38
N and NS-ICU	12	12	12	12	12	14	14
O - ICU	30	30	30	30	30	30	30

CPR; cardiopulmoner resuscitation , G-ICU; General Intensive Care Unit, N and BS- ICU; Neurology and Neurosurgical Intensive Care Unit, O-ICUTCD; Other Intensive Care, TCD USG; Transcranial dopler USG Values are given as number (%).

Table 4. Features related to being a donor

	n (%)
& Number of family leave cases (n=210)	50 (23,8)
& Number of donors (in all patients) (n = 210)	41 (19,53)
* Number of donors on family leave (n=50)	41 (82)
* Duration of family conscription (day) (n=50)	0.24±0.48
Ω Duration of donation after family leave (day) (n=41)	0.93±0.57
Ω Duration of being a donor after taking the diagnosis of brain death (day)(n=41)	1.17±0.67
Number of organs from donors (piece)	180
Kidney	71 (39,44)
Cornea	62 (34,44)
Liver	35 (19,44)
Heart	8 (4,44)
Lung	4 (2,22)

Values are given as mean ± SD, number (%)

** Only evaluated on patients with family leave*

& All patients were evaluated

Ω Only evaluated in patients with donors.

Conclusion(s): In order to increase donor pool in cadaver, it is necessary to increase brain death detection and reduce the rate of family rejection. It should be considered that brain death may occur in patients with poor neurological prognosis. Neurosurgery, neurology, emergency traumatology, and intensive care doctors should be more cautious in order to put the clinical diagnosis of brain death as soon as possible in patients who may be potential donors.

The donation rates could be increased by emphasizing the fact that brain death is a real death and the importance of organ donation. It should also be aimed at raising awareness raising programs and providing training to all segments of society and health professionals.

OP-62 DIFFICULTIES, JOB SATISFACTION LEVELS OF ORGAN TRANSPLANTATION COORDINATORS IN SERVICES

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Purpose: Cadaver organ source to be found increases through effective activity of organ transplantation coordinators. The success of organ transplantation centers can be provided through working of professional coordinators, support of administration and training and performance incentives. Our study which we think it will contribute to cadaver organ donor and procedures of transplantations was planned for difficulties and job satisfaction of coordinators to be assessed.

Material and method: Our study was carried out as cross-sectional and descriptive research. The research was conducted with the organ transplantation coordinators working connected with the National Coordination System between 15 July-08 August 2018. Questionnaire was sent to the mobile phones of coordinators of Regional Coordination Center as link and they sent the link to the coordinators whom they work with. The sample of the survey consisted of 123 organ transplantation coordinators. Descriptive characteristics, the difficulties in the institutional and brain death reporting process and the Minnesota Job Satisfaction Scale were used in data collecting procedure. In testing convenience of data with normal distribution, kurtosis and skewness coefficients were calculated. In evaluating the data; Average, Standard deviation and in independent groups, t-test and spearman's correlation analysis were used.

Findings: The average age of the coordinators participating in the study is 38,42-7,82; 56,9% are women, 55,3% are university graduates and 65,9% are nurses. 82.1% of the coordinators work in the public sector, 44.7% of them have a working period between 0-4 years, 63.4% of them work in a donor hospital and 78.9% of them have a certificate. 48.8% of the coordinators have always difficulties in obtaining requisition; 38.2% of them have always difficulties in obtaining the salary that they deserve and 30.9% of them have sometimes difficulties in receiving organ donation from the patients relatives. When the overall average of Minnesota Job Satisfaction Scale is 3.6, medium level of satisfaction can be mentioned. A significant difference ($p<0,005$) was detected between coordinators situation of acquiring certificate and job satisfaction and negative correlation was detected between occupational and intrinsic satisfaction level ($p<0,005$).

Conclusion(s): It was observed that coordinators have difficulties in payment, brain death reporting and that job satisfaction levels of those who could not acquire certificates are low. It will be beneficial that the necessary support shall be provided for the difficulties and job satisfaction levels of coordinators and that studies shall be conducted with more individuals.

OP-63 KNOWLEDGE, OPINION AND ATTITUDE TOWARD BRAIN DEATH AND ORGAN DONATION AMONG ANESTHESIOLOGY AND REANIMATION PROFESSIONALS

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Purpose: With the recent changes in the legislation, it was aimed to establish the basic data for the improvement of the weak points by determining the knowledge, opinion and attitude of the professionals of the Anesthesiology and Reanimation or/and Intensive Care, which are 50% responsible for the diagnosis of brain death.

Material-Method: After the approval of the Ethics Committee, the required approval was obtained from the Board of Turkish Anesthesiology and Reanimation Society (TARD), which had approximately 2500 members, and the questionnaires were sent to the members periodically over the web at certain intervals. The data was collected electronically. In addition, in the form of a printed questionnaire distributed at the meetings (symposium, national congress, seminar, course, etc.), the lecturers were transferred to the electronic center. The questionnaire consists of 89 questions.

Results: A total of 564 (22.56%) completed questionnaires were returned. The gender distribution of the respondents was 207 (36.7%) female, 357 (63.3%) male, and the mean age was 37 ± 7 . In our study, the rate of participants was found 87.2% who need ancillary test for the diagnosis of brain death. Nevertheless, the rate of those who never needed ancillary test was high among the participants who were specialized and working in hospitals covered by Erzurum RCC (regional coordination center for organ or/and tissue transplant) (31.2%, 26.7% respectively) ($p < 0.05$). 55.3% of respondents reported that brain death and 41.9% had to take account of circulatory arrest when assessing responses to consideration of brain death or circulatory arrest at the time of death. It was seen that the rate of participants who thought that their religious beliefs are not against organ donation (93.4%) was too high. However, the percentage of respondents who thought that families refuse organ donation because of their religion or sect was 84.1%. Suggestions for increasing organ transplants from cadavers include education (54.1%), religious support (21.4%), use of media resources (25%), government support and legislative changes (10.1% 7,6), and education of health workers (9,4%).

Conclusion: The level of knowledge of this group is much higher, additionally the knowledge level of the physicians and / or trained and / or working in transplantation centers are higher, the same effect is experienced in individuals who are active in brain death diagnosis, donor care and donation processes, it seems to directly influence the knowledge, opinion and attitudes related to the topic.

OP-64 INCIDENCE AND RISK FACTORS FOR SYSTEMIC INFECTION IN DECEASED DONORS

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Purpose: Organ donations shortage is the primary barrier to all organ transplantations. Infectious disease transmission through organ and tissue transplantation often considered to be controversial for organ retrieval. Donors with bacteremia and sepsis are often considered to be controversial for organ retrieval due to potential transmission of an infectious agent to the recipient.

Material and method: We retrospectively reviewed the results of bacterial culture of the donors blood from peripheral venous or central venous catheter, urine, and bronchial aspiration from the organ donation registries of 102 potential donors from Ministry of Health and Tissue Transplant Coordination Center of Istanbul Region in 2015.

Findings: Of the 102 deceased donors included in the analysis, 24 (23.5%) had infection. The most common sites of infection were the bloodstream (41.6%) and respiratory system (37.5%). The most common isolated pathogens of the bacterial cultures were gram-positive bacteria (21), gram-negative microorganisms (14), and Candida (1). Significant risk factor for infection was duration of stay at the intensive care unit (ICU) (median: 5 day; 25–75%: 3–5 day) (odds ratio, 2.94; 95% confidence interval, 1.06-8.12; $P < 0.05$). The presence of infection in the donor accounted for a significant part of the reasons why the organs were not accepted for transplantation (kidneys as 9%, liver as 4%, heart as 6%).

Conclusion(s): The study showed that deceased donors have an increased risk for developing nosocomial infections with prolonged stay at the ICU, and so the need for establishing and enforcing the prevention and control of infection in the possible donors.

OP-65 THE IMPORTANCE OF FAMILY INTERVIEW IN ORGAN DONATION

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Purpose: In order to enable organ transplantation in Turkey, in 1979, Law No:2238 was adopted concerning Organ and Tissue Removal, Preservation, Inoculation and Transplantation. Although organ donations by living people are relatively high, Turkey is far behind the European countries in cadaveric organ donation. According to data from the Ministry of Health, in the last 5 years, out of a total of 8,601 brain deaths that occurred in Turkey, organs of only 2,045 patients were transplanted. In 2015, 1,969 brain deaths have occurred but families of only 472 of these cases expressed consent for organ donation. Again in 2015, approximately 2,000 people on the waiting list have lost their lives due to lack of organs for transplantation. According to Turkey Organ Transplantation Foundation data, while the total number of transplants in 2017 is 4,015, the number of people waiting for transplants is 24,935. Although the development in medical technologies creates new possibilities, numerical data reveals that Turkey occupies an inadequate ranking as far as organ donation is concerned. In order to increase the donations, it is necessary to structure and direct the knowledge, thoughts and beliefs of the society in right manner. Increasing public awareness and sensitivity about organ donation is of great importance for many patients and potential patients waiting for transplant. In this study, it was aimed to understand the motives behind the donation decision processes of the family members who donated the organs of their relatives who have brain death, the factors that prepare and affect this process, and the opinions about organ donation.

Material and method: Thus, in this study, a qualitative research method; in-depth interview method was preferred, and one representative of eight families who donated the organs of their relatives were interviewed. The sample was selected from Bursa, a city which has the highest organ donation rate in Turkey during the last five years.

Findings: In conclusion, this study reveals the role and importance of the awareness and communication process, the relationship and communication between the ICU and the relatives of the patient before death, the experience and communication skills of the organ transplant coordinator, the approach of the team and preparation of the family for the process in organ donation.

Conclusion(s): Understanding the thoughts and feelings of donating families about organ donation will enhance the quality of future public awareness activities and will improve the interviewing process with the family members of patients with brain death.

OP-66 DONOR RATE AND ORGAN RETRIEVAL TIME IN BRAIN DEATH CASES

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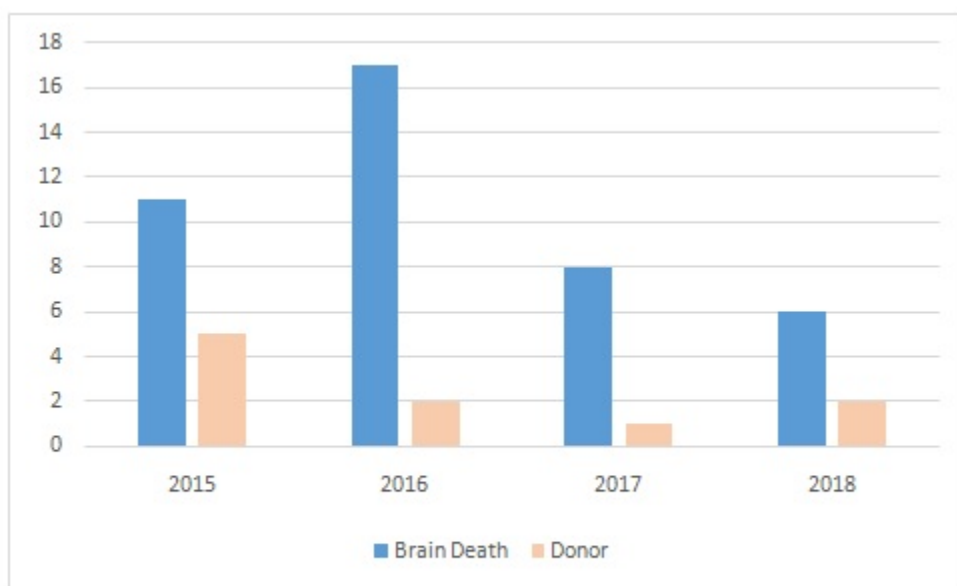
Purpose: Cadaveric donor is preferred for solid organ transplantation. It is important to diagnose brain death in ICU for cadaveric donor. The time from diagnosis of brain death to organ retrieval time is important.

In this study we have evaluated brain death case, organ donor rate and organ retrieval time in our ICU between 2015-2018.

Material and method: In the present study, we retrospectively investigated the data of 42 patients who were diagnosed brain death in the ICU of the University of Health Sciences Fatih Sultan Mehmet Health Research and Application Center between 1 January 2015 and 1 August 2018. This study was approved by our hospital's scientific studies board (FSM SSB Ref. No: 17073117-050.06). Our clinic is a general ICU with a capacity for 20 beds and the number of patient 850-900 for one year. Brain death was diagnosed according to standart criteria (definite and irreversible coma, absence of brain stem reflexes, positive apnea test). If necessary additional test, cerebral angiography was performed. Brain death was declared to all of the patients' family, ten families (19.2 %) approved donation. Age, APACHE II, SAPS II, admission glasgow coma scale, time of brain death diagnosis, donation rate, cardiac arrest time after brain death (length of ICU after diagnosis of brain death) or organ retrieval time were recorded.

Statistical analysis was performed using SPSS 22.0 statistical software package. Descriptive statistical methods (mean, standard deviation, median, frequency) were used when evaluating study data.

Findings: Primary diagnosis of the patients were spontanous subarachnoidal hemorrhage (n=15), spontaneous intracerebral hemorrhage (n=12), hypoxic ischemic encephalopathy (n=3), traumatic subarachnoid hemoragia (n=2), cerebral ischemia (n=4), head trauma (n=5), brain tumour (n=1). According to years the number of brain death and donor is shown in graphic 1. The recorded parameters are presented in table 1. CT angiography was performed for 17 patients.



Graphic 1: According to years the number of brain death and donor

Refused Donation (n=32)	Min-Max	Mean±SD	Median
Age	14-81	49±14,9	48
APACHE II	9-39	24,3±7,9	23
SAPS II	8-87	52,2±16,7	52
GCS	3-15	6,2±3,4	5
Brain Death Time	32-532	138,8±131,4	77
Length of ICU	3-174	40,7±44,1	25
After Brain Death (Cardiac Arrest Time)			
Approved Donation (n=10)	Min-Max	Mean±SD	Median
Age	28-75	51,9±14	53
APACHE II	12-36	26±7,7	27
SAPS II	33-81	57,4±15,6	56
GCS	3-12	5,9±3,2	6
Breath Death Time	32-161	79,8±44,9	68,5
Organ Retrieval Time	8-20	14±3,6	13,5

Table 1: Age, Scores and Brain Death, Organ Retrieval Times

GCS: Glaskow Coma Scale

Conclusion(s): During diagnosis of brain death period and preparation period for organ retrieval several complications may occur. For this reason, it is important to shorten these times as much as possible. References:

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OP-67 BALIKESİR KAMU HASTANELERİ SAĞLIK PERSONELLERİNİN ORGAN DOKU NAKLİNE BAKIŞI

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Balikesir Devlet Hastanesi

Purpose: Organ bağıışı ve nakliyle ilgili sosyal farkındalık dünya çapında önemli bir sağlık sorunudur. Çalışmamızda, sağlık personelinin bu konudaki bilgi ve düşüncelerinin araştırılması amaçlandı.

Material and method: Balıkesir ili kent merkezi kamu hastanelerinde (Balıkesir Devlet Hastanesi, Atatürk Devlet Hastanesi, Göğüs Hastalıkları Hastanesi) görev yapan 915 sağlık çalışanına 14.05.2017- 16.06.2017 tarihleri arasında 36 soruluk anket uygulanmıştır. Ankette 6 adet demografik ,9 adet organ bağıışı ,4 adet organ nakli, 4 adet basın-yayın, 4 adet eğitim ,2 adet organ nakil koordinatörlüğü ile ilgili, 4 adet din-organ nakli ilişkisi ve 3 adet beyin ölümü ile ilgili soru bulunmaktadır.

Findings: Organ nakliyle ilgili eğitim alma oranı %59.1'di. Beyin ölümünün hukuken, dinen ve tıbbi ölüm olarak kabul edildiğine ve iyileşme ihtimalinin olmadığı konusuna katılan kişi oranı %82.6'ydı. Organ bağıışında bulunma oranı %34.8'di. Hayattayken organ bağıışında bulunulmasının en önemli sebebi, 'birgün bizde bekleme listesinde olabiliriz, toprak olacak organlarımızla birilerine iyilik yapmak istiyorum' olarak belirtilmiştir. Hayattayken organ bağıışında bulunulmamasının en önemli sebepleri sırasıyla dinen uygun olmaması, organ bağıışının aileme sorulacak olması, ölmeden organların alınacağı düşüncesi olarak bulundu. Acile gelen ve

üzerinde organ bağış kartı bulunan hastaya gerekli tıbbi müdahalenin yeterli uygulandığına dair endişesi olan katılımcı oranı %23 olarak saptandı. Katılımcıların organ nakli için ailelerin onay vermemesi nedenleri, cenazenin bütünlüğünün bozulacağını, hastanın iyileşmesi için gerekli olan müdahalenin yapılmadığını düşünmeleri, dinen organ naklinin uygun olmadığını düşünmeleri, ölen kişinin yaşarken organ bağışı ile ilgili görüş belirtmemesi olarak bulundu. Organ nakillerinin; zengin, fakir, din, dil, ırk ayrımı yapılmaksızın eşit şekilde en acil olan kişiye yapıldığına inanan katılımcı oranı %56.6 idi. Organ bağışı ve nakli konusunda dini bilgiyi, resmi din görevlileri vermeli diyen katılımcı oranı %90.3'tü. Organ nakli ile kendiniz veya en yakınınız iyileşecek olsa organ nakli yapılmasını isteyen kişi oranı %92.7 idi. Birinci dereceden yakınınızın organlarını bağışlamış olduğunu düşünün, bu kişinin ölmesi halinde organ nakli için onay veririm diyen katılımcı oranı %84.5, hayatta iken organ bağışlayan kişinin, daha sonra bu kararından vazgeçebileceğini bilme oranı %91.1'di. Organ bağışı medya ve kamu spotlarının kendi görüşünü pozitif yönde etkilediğini düşünen katılımcı sayısı %59 olarak bulundu.

Conclusion(s): Sağlık personelinin organ bağışı konusunda eğitim almışlar dahil net bir görüşe ve yeterli bilgiye sahip olmadığı görüldü. Beyin ölümünün tıbben, hukuken ve dinen ölüm olduğunun bilinme oranı yüksek olmasına rağmen, katılımcıların beyin ölümü tanı sürecine güvensiz oldukları, eğitilmiş katılımcıların gerçek hayatta böyle bir durumla karşılaştıklarında fikir değişikliklerinin yüksek olabileceği saptandı. Yapılacak eğitim ve bilgilendirmenin medya ve kamu spotlarıyla güçlendirilebileceği görüldü.

OP-68 ASSESSMENT OF GHANA'S INTENSIVE CARE UNITS TOWARDS ORGAN TRANSPLANTATION

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Purpose: Ghana is undertaking big efforts to make organ transplantation a routine surgical procedure. So far, about 20 kidney transplants have been performed using living related organ donors with specialist support for other countries. The purpose of this study is to evaluate the ear-marked Intensive Care Units (ICUs) in the country towards organ transplantation.

Material and method: This is a descriptive study of the state of preparedness of the earmarked ICUs for Liver and Kidney transplant procedures as used to determine the basic human resource, infrastructure, and logistics needs of the transplant team. A vibrant core multidisciplinary team that will drive organ transplantation visited 9 health facilities in the country to assess the state of the Intensive Care Units towards organ transplantation. This includes 1 Quaternary facility, 4 Teaching hospitals/tertiary facilities, and 4 Regional Hospitals. For an objective assessment, a check list of ICU equipment, logistics and human resources was developed. A documentary review of national supervisory policies, infection, prevention and control procedures, practices and performance reviews informed the evaluation to enable understand current practices and critical points on logistics and practices. A scoping review of literature on organ transplantation, ICU requirements and implication to health worker performance, quality service delivery and sustainable capacity development helped to conceptualize and adapt the established international norms to the context of Ghana.

Findings: Findings from the initial evaluation revealed the existence of appropriate IPC practices, coordinated implementation of supervisory policies across facilities at all ICUs and availability of ultramodern ICU equipment ranging from ventilators, beds, haemodialysis machines, infusions bumps, defibrillators, gas analyser machines, thermal blankets, central and arterial lines etc. However, inadequacy of human resource was observed in all facilities. 10 Intensive Care Specialists and 15 Anaesthesiologists have committed interest in this area. In terms of intensive care nurses; a total of 150 are distributed among the ear marked facilities. There are also 20 dedicated biomedical scientist for laboratory procedures, 15 respiratory physiotherapist and 16 dieticians. The total ICU bed capacity earmark for transplant is 72 beds distributed among 6 facilities. This excludes high dependent and burns units which are also well equipped with the same number of 72 beds making it a total of 144 beds.

Conclusion(s): Conclusion: Ghana is well prepared to commence organ transplantation especially liver and kidney; the two most ready specialties with adequate trained human resource. However, there is the need to train more personnel to man the ICUs.

OP-69 BEDSIDE ULTRASONOGRAPHY OF THE OPTIC NERVE SHEATH IN BRAIN DEATH

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Purpose: Optic nerve sheath diameter (ONSD) ultrasonography has become one of the current methods used to detect potential brain deaths in recent years. In this study, it was aimed to evaluate the usefulness of ONSD measurement by ultrasonography in cases of brain death diagnosis in intensive care unit.

Material and method: In our intensive care unit, 15 patients who were declared brain death (Group BD), 15 comatose patients with GCS score 3 but not brain death such as intracranial hemorrhage, ischemic stroke or brain injury (Group CM), and control group 15 patients (Group CT) were included in the study. The probe was placed on the eye sphere by giving an appropriate angle in order to display the optic nerve entering into the globe (Figure 1). Both transverse and sagittal plane optic nerve sheath diameters were recorded for both eyes. Mean ONSD values obtained from brain death subjects were compared with ONSD values of comatose patients.

Findings: Demographic data and indications for admission to intensive care unit in each group and the mean ONSD values are presented in Table 1 and Table 2, respectively. Mean ONSD values of Group BD were significantly higher than Group CT ($p < 0.05$). Mean ONSD values of Group BD were significantly higher than Group CM values ($p < 0.05$).

Conclusion(s): Traumatic brain injury or anoxia can cause significant brain edema (1). Some researchers reported the relationship between ultrasonographic ONSD measurements of comatose patients and brain death subjects (2). In our study, ONSD values of comatose patients and brain death cases were compatible with these studies. In comatose patients, these values may be high due to an intracranial event (3). The ONSD values of our comatose patients were significantly higher in the control group than in the patients. Some of the comatose patients with intracranial hemorrhage, subdural hematoma, or traumatic brain injuries in intensive care units may result in brain death. These patients follow-up in terms of a brain death have an important role for diagnosing early and achieving healthy donors. In conclusion, transorbital ONSD measurements, which are cheap, easy and non-invasive tests for comatose patients may be helpful in determining potential brain deaths.

OP-70 RETROSPECTIVE EVALUATION OF BRAIN DEAD PATIENTS IN INTENSIVE CARE UNIT

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Purpose: The aim of this study was to examine retrospectively the adult brain death (BD) cases who were diagnosed in Anesthesia Intensive Care Unit (AICU) of Istanbul Goztepe Education and Research Hospital.

Material and method: The records of 40 cases who were diagnosed with BD in the intensive care unit between 01/01/2015-01/07/2018 were analyzed. Demographic characteristics, the admission diagnosis, brain death detection time, additional tests performed, the family's organ donation rate, the length of stay at the intensive care unit and the removed organ rate were recorded.

Findings: During the study period 40 patients were diagnosed with BD. The mean age of the patients was 35 ± 20 (1-74) years and 60% of them were males. The admission diagnosis were intracerebral hemorrhage (n:15), head trauma (n:7), subarachnoid hemorrhage (n: 5), brain tumor (n: 4) and others (cerebellar infarct, anaphylactic shock, neurometabolic disease, status epilepticus, meningitis, post resuscitation syndrome). The length of stay in AICU between 0-7 days was 90%. The diagnosis day of BD between 0-7 days was 90%. The donation rate was 40%. Apnea test was performed in all cases; however, it was observed that apnea tests could not be completed in 4 patients. In 45% of patients (n=18), in order to support the diagnosis of brain death, radiological methods were performed. Transcranial Doppler ultrasonography was performed in 24 cases (60%), cranial computed tomography in 3 cases (7,5%), cranial magnetic resonance angiography in 1 case (2,5%), and both these imaging methods in 3 cases. Among the 2015-2018 with a BD declaration, organ harvesting was performed in only 40% (n:16) cases due to family refusal. In 2 cases the patients were not Turkish citizens.

Conclusion(s): The potential donors, patients with severe intracranial pathology and clinical signs of brain death were reported to the regional transplant team. The BD declaration was completed according to the Law of Transplant Procurement and Management in Turkey, according to law, family consent is mandatory for organ harvesting. The rate of donation in this intensive care is still low. Several strategies have been identified to improve the rate: better identification of potential donors, better management, and education of the public and of health care personnel.

OP-71 HOW EFFECTIVE IS THE ORGAN DONATION COURSE IN MEDICAL SCHOOLS? A INNOVATIVE EDUCATIONAL METHOD SUGGESTION FOR ORGAN DONATION

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Purpose: There are different alternatives to increase the cadaveric donor pool. One is to raise awareness of organ donation in undergraduate medical education. Unfortunately, its effectiveness is controversial. Flipped classroom (FC) is a student oriented education method. With the use of the FC education method in organ donation courses given in medical education programs, students' knowledge and skills that enable them to discuss the topic of donation with patients can be improved. The purpose of this study is to evaluate the efficacy of the Organ Transplantation course designed with FC, an innovative educational method.

Material and method: In this descriptive study, in order to modify organ donation course, innovative educational method flipped classroom was adopted. A mixed evaluation approach which includes quantitative and qualitative evaluation methods was applied. While the Organ Transplantation course at Ege University was designed using the FC method, the goals and learning objectives are determined initially. Subsequently, technical equipment and education materials were prepared. All the students were informed about the method and what expected from them (such as attendance of the course by watching the education materials and on line test completion) were explained. In the course, students practiced their knowledge with given active learning methods, case study, discussion sessions and question-answer applications. The students were asked to answer "What do you intend to do to increase organ donation?" and a questionnaire about the FC method was applied to determine student satisfaction.

Findings: The questions answered incorrectly were about the subjects concerning brain death, the tissues and the organs that can be donated, deterioration of organ integrity, transplantation of hepatitis infected patients, ABO incompatible donation. When the texts in which students write down their thoughts on increasing organ donation are analyzed, it is seen that informing about donation in the society should be done at an early age (primary school) and emphasizing that teachers will be effective in informing this information. In addition, it is found that the granting some privileges to the donor family, introducing the patients on wait list to the population, insuring or paying the donor, donation of everybody unless they do declare the donation and altruistic transplantation will increase the organ donation. In the course evaluation form, the majority of the respondent students were expressed their high satisfaction levels (8.81 ± 1.06) for general aspects of the course.

Conclusion(s): Raising awareness is only possible by ensuring that candidate physicians understand the importance of topics such as cadaveric transplantation, donation and brain death. However, the effectiveness of these activities will still be disputable as long as they remain as didactic courses. The flipped classroom model, which is an active teaching method, can be used in organ donation courses in medical education programs.

OP-72 IMPACT OF SECONDARY INSULTS IN BRAIN DEATH AFTER TRAUMATIC BRAIN INJURY

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Purpose: In addition to primary injury in severe head trauma, secondary insults which aggravate the brain injury may result in fatal neurological outcome. We aim to evaluate the correlation between brain death and secondary brain insults in patients with severe traumatic brain injury (TBI).

Material and method: We retrospectively assessed 100 patients admitted to intensive care unit (ICU) with severe TBI. We collected datas on hypotension and hypoxemia at the time of admission to ICU and hypotension, hypoxemia, hypocarbia, hypercarbia, shock, anemia, hyperglycemia, hyperthermia within first 24 hours after the admission. Also we recorded category of TBI according to computerized tomography findings.

Findings: 26 patients (26%) who developed brain death were significantly younger than survivors. After risk estimate analysis, hypotension within first 24 hours (odds ratio [OR], 10.24; 95% confidence interval [CI], 3.64-28.78; $P=0.000$) and shock ([OR], 8.31; 95% [CI], 2.65-26.01; $P=0.000$) were significantly more frequent among brain-death patients. With multivariate analysis the most featured factor that independently predicted of the development of brain death in severe TBI patients was existence of hypotension (B -2.74; 95% [CI], 0.016-0.252; $P=0.000$). The most common type of injury among brain death patients was surgically evacuated mass lesion.

Conclusion(s): In our study we found that early hypotension (within 24 hours) was the most important independent predicted factor on developing brain death as a secondary brain insult. Although all critical care principles are applied to prevent the increase of secondary brain insults, when brain death occurs, the prevention of hypotension will become significant at the time being to preserve organs in better condition for procurement.

TABLE : Comparison of Some Characteristics of Patients and Secondary Insults According to Brain Death Developing

variable	Brain Death (n= 26)	No Brain Death (n =74)	P
Age (y)	27.34 ± 11.34	34.00 ± 14.28	<0.05
Gender (male)	84.6%	90.5%	.406
GCS	3.76 ± 1.39	4.35 ± 1.42	.380
Admission Hypotension	46.2%	16.2%	<0.05
Hypotension	61.5%	13.5%	<0,0001
Shock	42.3%	8.1%	<0,0001
Hyperglycemia	73.1%	41.9%	<0.05
Classification of TBI according to CT			
I	0	6,8%	<0,0001
II	11.5%	47.3%	
III	23.1%	21.6%	
IV	15.4%	0	
V	30.8%	24.3%	

VI	19.2%	0	
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OP-73 DONOR SUITABILITY

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Abstract: Like in many countries cadaveric donation rates in Turkey is very low. (pmp=7,1) Unfortunately that's why number of patients dieing while waiting in the cadaveric transplantation list is increasing. This forces patients, appropriate for transplantation, to look for a living donor. Our country is one of the countries in the world with huge numbers of living donor transplantation. The aim of this study is to asses the living donors according to their suitability for liver failure patients between January 2014 and October 2017, who referred to our transplantation clinic. During this time period 248 patients referred to our clinic with 456 different living donors. Only %25,6 of donor candidates have been appreciated as suitable and underwent transplantation. %22,3 of them were not suitable for to be a liver donor after medical evaluations. %1,9 of them withdrew. %4,4 of the patients died during preparation period. %39,9 of the patients and donors were foreign national. %10,5 of donor candidates were non-related, as %47 first degree relevant. (Mother, father, children, marital partner) As a result living donor pool is not enough for patients with organ insufficiencies. The solution is to increase the numbers of cadaveric donors.

OP-74 BRAIN DEATH CASES AND ORGAN DONATION RATIOS IN ESKİŞEHİR: A RETROSPECTIVE COHORT STUDY

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Purpose: Brain death defines the irreversible loss of brain and brainstem functions in which condition that harvesting is possible. We aimed to investigate the improvement of the donation and harvesting ratios in our city for changing the conditions in the way to develop better donation ratios.

Material and method: We examined the data of the brain death cases from ESOGU university hospital and two state hospitals in a period between 2013 and 2017 and analyzed with SPSS For Windows 23.0 statistical program.

Findings: One hundred and thirteen cases of brain death were examined and 25.7% of them resulted with harvesting and 74.3% of the relatives didn't permit to donation. Results of a study from Bursa which is the first lined city in Turkey Organ donation list at 2012; showed that only relatives of 34.6% of 79 brain death cases between 2007 and 2014 allowed to donation while it was 8.8/4.9 cadaver donation per million persons in Bursa/Turkey.

Table 1. Frequency of Etiology and Multiple Diagnostic

		Frequency (n)	Percentages (%)
Etiology	Intracerebral Hemorrhage	29	25.7
	Subarachnoid Hemorrhage	68	60.2
	Intoxications	1	0.9
	Hypoxic Brain Damage	15	13.3
	Cerebrovascular Infarction	15	13.3
Multiple Diagnostic	Single	98	86.7
	Multiple	15	13.3

Table 2. Organ Donor Status and Frequency of Organs

		Frequency (n)	Percentages (%)
Organ Donor Status	No	84	74.3
	Yes	29	25.7
Organs	Kidney	13	11.5
	Liver	15	13.3
	Cornea	16	14.2
	Others	4	3.5

Table 3. Organ Donor Status per Years Cross Tabulation

		Organ Donor Status		$\chi^2; p^*$
		No	Yes	
Years	2013	19 (%90.5)	2 (%9.5)	9.064; 0.060
	2014	14 (%93.3)	1 (%6.7)	
	2015	15 (%65.2)	8 (%34.8)	
	2016	16 (%61.5)	10 (%38.5)	
	2017	20 (%71.4)	8 (%28.6)	

* Pearson Chi-Square Test

Table 4. Descriptive Statistics

		Frequency(n)	Percentages(%)	
Gender	Male	70	61.9	
	Female	43	38.1	
	n	Minimum	Maximum	Mean $\pm$ Standard Deviation
Age	113	11	92	56.84 $\pm$ 19.08
Time to Diagnosis	113	1	5	1.40 $\pm$ 0.69
Time to Harvesting	20	1	7	1.40 $\pm$ 1.51
Time to Cardiac Arrest	94	1	11	2.30 $\pm$ 2.24

Conclusion(s): Compared to a close city results, Eskişehir's donation results seems less that may be caused by the lack of transplantation center in the city so after the activation of the transplantation center of the university hospital the donation ratios may improve. REFERENCES: 1.Karasu ve ark. :Beyin ölümü olgularının retrospektif analizi. Yoğun Bakım Derg 2015; 6: 23-6.

OP-75 RETROSPECTIVE INVESTIGATION OF GRAFTED KIDNEY FUNCTION AFTER REVERSAL OF NEUROMUSCULAR BLOCKADE: NEOSTIGMINE OR SUGAMMADEX

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Purpose: Sugammadex has the steroid-encapsulating effect that reverses neuromuscular block induced by aminosteroid neuromuscular blocking agents. Although sugammadex can interact with other drugs that same steroidal structure with rocuronium, like corticosteroids. Corticosteroids have played a key role in the immunosuppression of kidney transplantation. The purpose of this study was to determine if there are any differences in grafted kidney function in recipients of kidney transplantation when recipients were reversed neuromuscular block with sugammadex or neostigmine.

Material and method: The study included 42 kidney transplant recipients, with complete, readable medical charts and anesthetic records. Fourteen recipients were reversed neuromuscular block with sugammadex (Group S) and 28 recipients were reversed neuromuscular block with neostigmine (Group N). We tested non-inferiority for serum creatinine at preoperative and within 5 days after transplantation. Short-term (28 days) outcomes of kidney transplantation were assessed by the incidence of acute rejection episodes, graft failure, length of stay at hospital and mortality.

Findings: There were no significant differences in demographic characteristics, serum creatinine values (Figure 1), short-term outcomes and graft survival rates at 28 days postoperatively between group S and group N ($P > 0.05$) (Table 1).

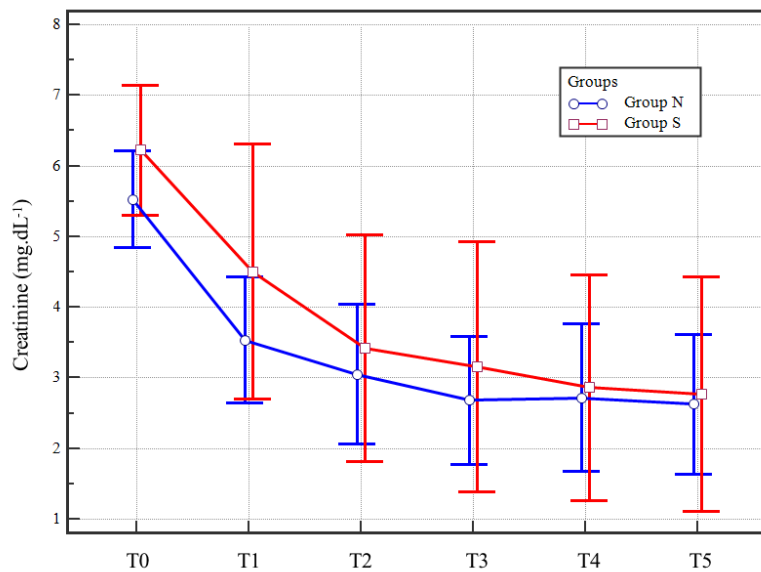


Figure 1. Daily serum creatinine values.

Table 1. Demographic and Clinical Data

Characteristic	Group N (n=28)	Group S (n=14)	P
Age, y	47,39±13,56	45,78±12,95	0,715
Male/female, no.	18/10	7/7	<0,001
Duration of anesthesia, min.	225±44	212±42	0,366
Duration of surgery, min.	189±46	165±55	0,135
Length of Stay in Hospital	28,5±22,7	24,4±11,7	0,526
Rejection, no.	2	1	1,000
Mortality, no.	2	1	1,000
Living donor, no.	20	7	<0,001
Deceased donor, no.	8	7	<0,001

Data are expressed as mean ± SD unless otherwise indicated.

Conclusion(s):Our data showed no differences in risk of serious adverse effects on short-term graft functions in patients undergoing kidney transplantation. However, considering the effect of sugammadex-corticosteroids interaction on the immunosuppression and long-term effects on grafted kidney functions, current safety experience is insufficient to support recommended routinely use of sugammadex in this population. These results need to be confirmed by sufficiently powered, controlled, pharmacokinetic and pharmacodynamic studies on larger patient populations.

OP-76 OUTCOMES OF MYCOPHENOLATE MONOTHERAPY FOR HUMAN LEUKOCYTE ANTIGEN (HLA)-IDENTICAL SIBLING LIVING KIDNEY TRANSPLANTATION: A SINGLE CENTRE EXPERIENCE. (SECOND REPORT AT 24 MONTHS FOLLOW UP)

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Purpose: We have previously reported the one-year outcome of Mycophenolate monotherapy for 5 patients who underwent 1st kidney transplantation from a living HLA-identical sibling.

We here report the longitudinal follow up for 8 patients including the previous 5 patients for a mean of 26 months post transplantation. 3 of our patients have completed a total period of three-year follow up post transplantation.

Although kidney transplant recipients from HLA identical siblings show excellent long-term graft outcomes and low immunological risk, there are no clear recommendations regarding the best immunosuppressive regimen that prevents rejection episodes and avoids potential drug-related adverse events. This study aims to evaluate feasibility and efficacy of mycophenolate plus short course steroids as the sole immunosuppressive protocol for live kidney transplant recipients from HLA-identical siblings, without an induction therapy

Material and method: • Data collection and Participants: We report all PRA negative patients who underwent first live kidney transplantation from an HLA-identical sibling at Al Mowasat university hospital during the period from June 2014 to April 2018.

Inclusion criteria: (I) age >18 years, (II) first kidney transplant, (III) HLA- identical sibling living donor, (IV) absence of panel reactive antibodies (PRA) class I and II antibodies as tested with luminex™.

• Immunosuppression Protocol:

All patients received no induction therapy. MMF (2gm/day) five days before transplantation and 3 doses of intravenous (IV) methylprednisolone (0.5 gm/day) starting the day before transplantation then maintained on daily oral prednisolone 60 mg plus MMF (2gm/day). Oral prednisolone was tapered gradually till complete withdrawal at 3 months. If the patient didn't experience any attack of rejection at 1 year with negative PRA, MMF dose was tapered to 1.5 gm/day.

Findings: From 30 patients who underwent kidney transplantation during the period of June 2014 till April 2018; 8 patients had a renal graft from a living HLA- identical sibling. Mean (SD) follow up duration was 26.1 months (± 11). At time of transplantation, mean recipient age was 29 years; mean donor age was 31 years. Male to female donation represented 37.5%, male to male represented 37.5%, female to male donation was 25%. Patient and graft survival were 100% at 12 months, 24 months and at the last follow up.

Patients didn't experience any attacks of acute rejection. We don't perform protocol biopsies at our centre, however, patients had stable serum creatinine over the whole duration of follow up. Mean serum creatinine was 1.08 ± 0.3 at 3 months, 1.12 ± 0.17 at 6 months, 1.16 ± 0.29 at 12 months, and 1.18 ± 0.08 at 24 months. One of the patients was shifted to a lower dose of MMF being 1.5 g/day instead of 2 g/day with a net result of 6 patients on a dose of 1.5 g/day MMF, 1 patient on 2 g/day MMF and 1 patient shifted to azathioprine 150 mg/day together with cyclosporine A 150 mg/day as planned to get pregnant.

As previously reported, All patients were tested for PRA class I and class II six months after transplantation and it was negative. No unplanned rehospitalizations were necessary after transplantation. No one has experienced drug-related adverse events that required change in medications or doses. The Most common complication was recurrent UTI. No major abnormalities of the hemoglobin level or lipid profile were observed. One patient was shifted to azathioprine with cyclosporine after 12 months as planned to get pregnant, her renal function tests were at the same baseline for 6 months follow up.

Conclusion(s): Mycophenolate monotherapy For first HLA-identical sibling living kidney transplant recipients can be a feasible and practical immunosuppressive protocol that offers less drug related adverse events with good clinical outcomes at 26 months follow up.

OP-77 RENAL TRANSPLANTATION IN HIGH IMMUNOLOGICAL RISK PATIENTS: A SINGLE CENTER EXPERIENCE

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Purpose: Renal transplantation (RT) in high risk patients is increasingly performed due to inadequate organ pool and increased rate of RT after a failed transplantation. Safety and prognosis of RT in such patients with high risk is an ongoing debate. Herein we aimed to present our single-center experience on RT of high risk patients

Material and method: A total of 89 consecutive RT patients were included into this study in 10 months of period. Patients were divided into 3 groups as low risk group (n= 47) with negative panel reactive antibody (PRA), medium risk group (n=18) with positive PRA but MFI <2000 and high risk group (n=24) with positive PRA and MFI>2000 or donor specific antibody (DSA) positivity. Groups were compared in terms of demographic features, creatinine levels, acute rejection rates, delayed graft function (DGF) and patient or graft loss.

Findings: Age of the recipients were similar between the groups. Desensitization (7% vs 11% vs 42% respectively in low, medium and high-risk groups; p=0.001), plasmapheresis (6% vs 11% vs 46% respectively, p<0.001) and rituximab treatments (0% vs 0% vs 25% respectively, p<0.001) were significantly more frequently performed in high risk patients. Serum creatinine levels at 1 month and 6 months after RT were similar between the groups (p=0.43 and p=0.71 respectively). Rates of acute rejection (6% vs 6% vs 16% respectively, p=0.52) and DGF (9% vs 11% vs 29% respectively, p=0.15) were similar between the groups. Frequencies of loss of patient or graft were also similar (0% vs 6% vs 4%, p=0.15).

Conclusion(s): RT may be successfully performed in high risk patients without an increase in the risk of acute rejection, DGF or patient /graft loss.

OP-78 OUTCOMES OF CANAKINUMAB TREATMENT IN KIDNEY TRANSPLANT RECIPIENTS WITH FAMILIAL MEDITERRANEAN FEVER

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Purpose: Familial Mediterranean Fever, is the most common cause of sekonder amyloidozis in Turkey. With Colchicine treatment complete remission rate is %60-65. Approximately %5-10 of patients are resistant. Canakinumab (anti-interleukin (İL)-1) is known to be safe and efficient treatment for FMF when patients have colchicine resistance and/or intolerance.

Material and method: Between 2010-2017 years we scanned kidney transplant recipients with FMF in Ankara Faculty of Medicine. We report 4 kidney transplant recipients with FMF sekonder amyloidozis.

Findings: All 4 patients had FMF attacks and end-stage renal disease seconder to amiloidozis despite using regular, maximum colchicine dose. İn 3 patients, canakinumab treatment started after transplantation, in 1 patient 2 months before transplantation. All 4 patients had experienced anakinra before canakinumab. (1 patient had attacks with anakinra, 3 patients had no attacks after anakinra threatment) No serious side effect seen with anakinra, in 1 patient anakinra caused reactions at the site of injection. All 4 patients continue canakinumab treatment 150 mg for 4 to 8 week intervals with colchicine, approximately for 2 years. They have no attacks (fever, abdominal pain, artrit..), serum CRP and serum amyloid A levels are normalized, kreatinin and proteinuri levels are stable under canakinumab treatment. Life threatening infection and greft lost did not seen in this 2 year period with canakinumab therapy.

Conclusion(s): Canakinumab treatment is a safe, efficient treatment in kidney transplant recipients with FMF.

OP-79 RENAL TRANSPLANTATION IN PATIENTS WITH ATYPICAL HUS: A SINGLE CENTER EXPERIENCE

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Purpose: Hemolytic uremic syndrome (HUS) is characterized by microangiopathic anemia, thrombocytopenia and acute kidney injury. HUS is mostly associated with diarrhea (90%) however 10% of cases are not associated with diarrhea thus called as atypical HUS (aHUS) which are mostly caused by dysregulation of the complement system. Eculizumab, a monoclonal antibody against C5, is the drug of choice in aHUS. Herein we aimed to present 8 cases of renal transplantation performed on patients with aHUS.

Material and method: A total of 8 patients with aHUS were enrolled and transplanted who had been diagnosed as aHUS between the years 2012-2018. All patients received induction treatment, standard immunosuppressive treatment (tacrolimus, mycophenolic acid, prednisolone) and eculizumab. Eculizumab was administered 900 mg/week for the first month and 1200 mg in every 2 weeks thereafter. Patients were followed up and recorded in terms of demographic features, serum creatinine, lactate dehydrogenase (LDH), acute rejection episodes, and allograft outcomes.

Findings: Mean age was 34±8 years (M/F:6/2). One of the patients had second transplantation. Median hemodialysis vintage (25%-75% IQR) was 37(9-63) months. Four patients had pre-transplant plasmapheresis and 2 patients had post-transplant plasmapheresis. Induction treatment was ATG in 7 patients and basiliximab was used only in a patient. Median follow-up period was 25(13-59) months. Mean serum creatinine levels were 1.9±0.6 ; 1.2±0.7 and 1±0.1 mg/dL for 1st day; 1st month and last values respectively. Mean LDH levels were 286±203 ; 239±27 and 218±86 U/L for 1st day; 1st month and last values respectively. None of the patients had an acute rejection episode. Currently, all patients had functioning allografts.

Conclusion(s): Patients with aHUS may be transplanted successfully under the eculizumab treatment with good allograft outcomes.

OP-80 HOW CAN WE INCREASE THE NUMBER OF PRE-EMPTIVE RENAL TRANSPLANTATION?

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Purpose: Chronic Kidney Disease (CKD) is an important public health problem that has become epidemic in all over the world and in our country. Renal replacement therapy (RRT) options in end stage renal disease (ESRD) include transplantation, peritoneal dialysis (PD) and hemodialysis (HD). The choice of RRT is influenced by many factors such as the experience of the center, the comorbid conditions of the patient, the educational status of the patient, and the socioeconomic conditions. Pre-emptive renal transplantation before starting hemodialysis or peritoneal dialysis has been shown to be the most appropriate treatment strategy for patients with CKD. In our nephrology department patients with CKD have a predialysis education programme given by an experienced nurse. The options of RRT available in our centre are renal transplantation, either with a living-related or a cadaver donor ,PD and HD.

Material and method: We retrospectively evaluated the data of 464 patients who we started with RRT from 3037 predialysis patients who applied in our study predicting education program in Antalya Training and Research Hospital and we identified the demographic and clinical characteristics of patients with preemptive renal transplantation.

Findings: Of the 464 patients who started RRT, 272 were male, 192 were female and their mean age was 62.51 ± 14.02 . In SDBH etiology; 175 patients had diabetic nephropathy (38%), and 101 patients had hypertensive nephrosclerosis (21.8%). 330 patients had chosen HD (71,1%), 65 patients chose PD (14%) and 69 patients chose pre-emptive renal transplantation (14,9%) (16 cadaveric,53 living related) . The mean age of the patients who had hemodialysis was 62 ± 13 years, the mean age of the PD patients was 54 ± 12 years and the mean age of the renal transplantation patients was 44 ± 14 years. There was a significant difference between the age groups ($p < 0.001$). The Charlson Comorbidity Index (CKI) was calculated to determine the effect of comorbid conditions on RRT selection. Mean CKI was 5 in all patients. The mean CKI was 5 in HD patients, 4 in PD patients and 2 in Renal Transplant patients. There was a statistically significant difference between the CKI groups ($p < 0.001$). As age increases, CKI increases. Education status, life style, marital status, place of residence were found to be effective factors in the selection of RRT, and a significant difference was found between RRT groups.

Conclusion(s): Patient involvement in making health decisions is becoming a central component of health care provision around the world . The predialysis education program provides the health team more effective control and follow-up of patients with kidney disease. We observed that younger, with fewer comorbidities and patients with high education level choose renal transplantation. . With these results we can say that we must have standart predialysis education programme in all of our nephrology centers. Predialysis education can increase the number of preemptive renal transplantation and so quality of life, and economics.

OP-81 ONCE-VERSUS TWICE-DAILY TACROLIMUS; SURVIVAL RATES AND SIDE EFFECTS; A SINGLE CENTER EXPERIENCE

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Purpose: This study aimed to determine whether de-novo prolonged-release tacrolimus (PR-tacro) based immunosuppressive regimen affected graft and patient survival when compared to immediate release twice daily tacrolimus (IR-tacro) based regimen in kidney transplant recipients. We also aimed to determine the difference between the frequency of side effects including diabetes control in study groups.

Material and method: A total of 115 standard risk kidney transplant recipients were enrolled in this single-center, retrospective study. Fifty-two patients received PR-tacro, 63 patients received IR-tacro as a calcineurin inhibitor. All patients received mycophenolat mofetil and corticosteroid as a maintenance immunosuppressive treatment. The primary outcome measures included incidence of graft loss and delayed graft function (DGF), biopsy-proven acute rejection (BPAR), graft and patient survival and creatinine clearance; secondary outcome measures included the incidence of non-adherence, drug-induced tremor, PTDM diagnosis rate, and control of diabetes in pre-transplant diabetic patients.

Findings: Baseline characteristics and mean tacrolimus trough levels were comparable between groups (Table 1). Incidence of graft loss, DGF, graft and patient survival were similar between groups (Table 2). Mean creatinine clearance level was also similar ($p>0.05$)(Table 2). Mean serum levels of fasting glucose ($p<0.05$) and A1c ($p<0.05$) were lower in PR-tacro group when compared to IR-tacro group (Table 3). PTDM diagnosis rate was also lower in PR-tacro group when compared to IR-tacro group ($p=0.040$)(Table 3). Non-adherence to drug use was similar between study groups; drug-induced tremor was lower in PR-tacro group when compared to IR-tacro group (7.6% vs 14.2%, $p=0.022$).

Conclusion(s): This study suggest that there is no statistically significant difference between PR-tacro and IR-tacro in terms of patient and graft survival, DGF, and BPAR rates in renal transplant recipients. PTDM frequency is lower in non-diabetic patients, glucose metabolism control is better in diabetic patients. Although non-adherence rates were similar, drug-induced tremor was lower in PR-tacro when compared to IR-tacro.

OP-82 THE EFFECTS OF CORONARY ARTERY STATUS ON PATIENTS' AND GRAFTS' SURVIVAL IN CHRONIC RENAL FAILURE PATIENTS DUE TO DIABETES MELLITUS

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Purpose: The most important cause of Chronic Renal Failure(CRF) is diabetes Mellitus(DM).DM is a multisystemic disease and affects adversely all the systems especially the cardiovascular system.Therefore kidney transplantation period can be difficult in these patients.In this presentation,we investigated the survival of patients with chronic renal failure due to DM in our center according to the coronary status after renal transplantation.

Material and method: Patients with renal transplantation due to diabetes mellitus between November 2008-December 2017 in Antalya Medical park Organ Transplantation Department were included in the study.Patients were grouped according to their coroner angiography status and medical history.Patients were classified as Group1 if their coroner angiographies were normal. Patients were classified as Group2 if they had coronar artery bypass surgery before renal transplantation. Patients were classified as Group 3 if they had coronar artery stent before renal transplantation. Patients were classified as Group 4 if they had coronar artery bypass surgery synchronous with renal transplantation. Patients were classified as Group 5 if they had coronary artery disease with more than %50 stenosis according to their coroner anjiography results.Survival of the groups were invastigated.

Findings: 4394 patients underwent kidney transplantation at Antalya Medicalpark Organ Transplantation Clinic between November 2008-31 December 2017.650 patients underwent renal transplantation because of CRF due to DM.The gender of the patients were 480 male and 170 female.DM distribution was 86 patients with Type1 DM,406 patients with Type2 DM and 158patients with DM+Hypertension.According to type of dialysis 246 patients were preemptive,366 patients had hemodialysis,25 patients had peritone dialysis,13 patients had both hemodialysis and peritoneal dialysis.There were 285 patients with normal coronar angiography (Group1),72 patients with coronary artery bypass history before renal transplantation (Group2),56 patients with coronary artery stent history before renal transplantation (Group3),62 patients with coronary artery bypass surgery synchronous with renal transplantation (Group4),175 patients with coronary artery disease with more than %50 stenosis according to their coroner anjiography results (Group5).

The mean age of the patients was 51.8(20-82).The mean duration of DM was 13.9 years(2-28). The mean duration of dialysis was 17.7 months(0-216), the mean duration of follow-up was 59.9 months(0-116).

Conclusion(s):

Distribution of Patients According to Coronary Status			
	EX	LİVE	TOTAL
Normal	31	254	285
Preop. CABG	14	58	72
Preop Coronary Stent	16	40	56
Simultane Renal Tx+CABG	12	50	62
Coroner artery Disease	29	146	175
TOTAL	102	548	650

In the literature, 1 year survival in CRF patients with diabetes mellitus is reported to be 79.3%, 3 year survival 53%, 5 year survival 35% and 10 years survival 5-10%. Renal transplantation is the best method of treatment for CRF patients due to DM in the aim of bringing comfort ant prolonging the duration of life.

KEY WORDS: kidney transplant,diabetes mellitus,coronary artery disease

OP-83 OUR 10-YEAR TRANSPLANTATION OUTCOMES IN PATIENTS WITH CHRONIC RENAL FAILURE DUE TO DIABETES MELLITUS

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Purpose: According to Turkish Nephrology Society 2016 data, there are 58.687 chronic renal failure (CRF) patients in our country. The most common cause of CRF is diabetes mellitus (DM) with 38 % rate. DM is a disease that effects all the systems. In DM patients, both kidney transplantation and follow-up period are difficult. During the cadaveric waiting period of CRF patients, particularly the patients with CRF due to DM, are mainly lost because of cardiovascular disease and cerebrovascular disease. We aimed to share the results of CRF patients with DM who had kidney transplantation operation in our clinic

Material and method: Patients who had operation of renal transplantation at Antalya Medicalpark Organ Transplantation Department due to DM between November 2008 and December 2017 were included in the study. Patients' creatinine and HbA1c levels during the first 10 years annually were examined. Patients graft loss and mortality were investigated. Patients with type 1 DM who had pancreas transplantation and patients who were not followed up in our hospital were excluded from the study.

Findings: Between November 2008- December 2017, 4394 patients in Antalya Medicalpark Organ Transplantation Department underwent kidney transplantation. 650 patients had renal transplant due to DM. The gender of patients were 480 male, 170 female. DM distribution was 86 type 1 DM, 406 type 2 DM, 158 DM + Hypertension. As dialysis type; 246 patients were pre-emptive, 366 patients had hemodialysis, 25 patients had peritoneal dialysis, 13 patients had both peritoneal dialysis and hemodialysis. The mean age of the patients was 51.8 (20-82). The mean duration of DM was 13.9 years (2-36). Duration of dialysis was 17.7 months (0-216). Duration of follow-up was 59.9 months (6-116)

Creatinine levels and HbA1c values are given in Table 1. The number of patients who were still following up was 478. The number of patients with graft loss who are alive was 31 and who are dead was 102.

Creatinine and HbA1c Levels Over Years		
Years	Creatinine Levels (mg/dl)	HbA1c Levels
1 st	1.3	7.2
2 nd	1.2	8.4
3 rd	1.2	8.3
4 th	1.2	8.1
5 th	1.2	8
6 th	1.2	8.1
7 th	1.3	8.1
8 th	1.3	8.1
9 th	1.4	7.9
10 th	1.5	7.1

There were 17 simultaneous pancreatic transplantation and 22 non follow-up patients.

Conclusion(s): There are few studies about kidney transplantations with chronic renal failure patients due to diabetes. The studies are mostly concerned with DM that develops after kidney transplantation. In diabetic patients kidney transplantation is difficult and must be performed with careful follow-up period. Renal transplantation is the best treatment for CRF patients with DM.

OP-84 DOES VITAMIN D DEFICIENCY ASSOCIATE WITH METABOLIC SYNDROME IN KIDNEY TRANSPLANT RECIPIENTS?

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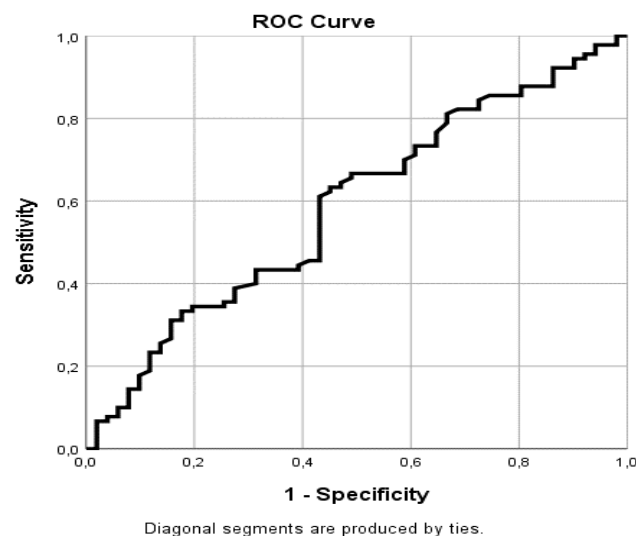
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Abstract: Kidney transplantation is the gold standard method for the treatment of end-stage renal failure. Despite the increase in short-term graft survival with the development of potent immunosuppressive drugs, long-term survival is still low due to cardiovascular diseases (CVD) and chronic allograft dysfunction (CAD). Metabolic disorders such as obesity, hyperglycemia, dyslipidemia, and hypertension is associated with increased risk for CVD and CAD. Metabolic syndrome (MetS) is a cluster of metabolic risk factors. There are studies in the general population that suggest that Vitamin D deficiency may lead to the development of MetS. We aimed to investigate the relationship between vitamin D deficiency and MetS in kidney transplant recipients.

Methods: One hundred forty-one patients were included in the study. MetS prevalence was 63.8%. Mean vitamin D level was 17.2 ± 10.2 . Patients were divided into two groups according to vitamin D level. Patients with vitamin D levels below 25 ng / mL were group 1, while those above were group 2. There was no difference in the presence of metabolic syndrome, presence of DM, HT, systolic and diastolic blood pressure, waist circumference, glucose, triglyceride, HDL level when compared with 2 groups ($p > 0.05$).

There was no correlation between vitamin D levels and systolic and diastolic blood pressure, waist circumference, glucose, triglyceride, HDL level. The area under curves (CI 95%) of vitamin D level to predict MetS were 0, 58(0, 48-0, 68) (Figure 1).

Conclusion: There is evidence that vitamin D plays a role some metabolic pathways. We could not find any relationship between vitamin D level and MetS. This may be due to this study is the small sample size. Investigation of this relationship with large study groups suggests that kidney transplant recipients will have a significant effect on long-term graft survival. Figure 1: ROC curve analysis of vitamin D level in MetS risk prediction.



OP-85 PATTERNS OF ANTIBODY MEDIATED REJECTION IN LIVING DONORS RENAL ALLOGRAFTS, A SINGLE CENTER STUDY

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Abstract: Antibody mediated rejection (ABMR) occurs in 2 forms (Type 1 & Type 2) and is a major risk factor for renal allograft failure. We set to identify the prevalence of both types of ABMR in our population. Methods: Background: Biopsies received from January 2013 to December 2017 at a single center were reviewed. C4d staining was not available for 43 cases. ABMR was classified by time post transplant into type 1 (<1 year) & type 2 (>1 year). Morphological features as Microvascular inflammation score $g+ptc \geq 2$ (MVI), C4d status, Thrombotic Microangiopathy (TMA), transplant glomerulopathy (TG), Transplant Vasculopathy (TV) and IFTA (> Banff grade I) in each type were compared Results: Out of 2239 graft biopsies, 737 biopsies (33%) had features of ABMR. Type 2 was significantly > Type 1 (553 vs 184). MVI was present in 44% in type 1 vs 92 % in type 2. C4d was positive in 80% out of Type 1 vs 60 % in Type 2. TG was 1.4% in Type 1 vs 52% in type 2 while TV was seen in 10 % of Type 1 vs 50% in Type 2. TMA was seen in 49% in Type 1 versus 15% in Type 2 and significantly correlated with the presence of C4d as 81% of TMA cases were positive. IFTA was significantly more in Type 2 (99% vs 0.6%). Associated T-cell mediated rejection was present in 25% in type 1 vs 15% in type 2 Conclusion: Our data shows that there is quiet a significant incidence of Type 2 ABMR with a tendency for chronic changes and hence a poor outcome. Keywords: ABMR, C4d, TMA

OP-86 MASKED HYPERTENSION AND OBESITY IN RENAL TRANSPLANT PATIENTS

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Purpose: Renal transplantation is the gold standard for the treatment of end-stage renal failure. However, cardiovascular diseases (CVD) are the main cause of death in these patients. Hypertension, obesity, and diabetes (DM) are factors that increase the risk of CVD after transplantation. Studies have suggested that masked hypertension have an increased risk of CVD. We aimed to investigate the prevalence of masked hypertension and to evaluate risk factors in our renal transplant patients.

Material and method: One hundred twenty-eight patients who were followed up in our nephrology clinic were included in the study. Patients' blood pressures were measured at the clinic (CBP) and 24-hour ambulatory blood pressure (ABPM) measurements were performed. Participants were classified into four groups on the basis of their HBP and CBP values: sustained normotension (SNBP), white-coat hypertension (WCHT), masked hypertension (MHT) and sustained hypertension (SHT).

Results: Thirty-six (27.9%) patients have MHT. The characteristics of participants classified under the four groups are shown in Table 1. The mean waist circumference (WC), body mass index (BMI), waist-hip (WHR) and waist-height ratio (WHtR) higher in individuals with MHT, WCHT and SHT than patients with SNBP. In logistic regression analysis, we investigated factors associated with MHT. In a model with age, sex, smoking, presence of DM and blood glucose, uric acid, BMI, WC, WHR, and WHtR, we found that BMI, WHR, blood glucose level and smoking were related with MHT ($p<0.05$).

Conclusion:

We found that MHT prevalence was high in our group. MHT is associated with obesity indices. These findings suggesting that patients with high BMI and WHT, high blood glucose and smokers should investigate with ABPM to diagnose masked hypertension. It may reduce adverse cardiovascular outcomes after transplantation.

Table 1: Characteristics of the four hypertensive subgroups.

	SNBP(n:60)	MHT(n:35)	SHT(N:22)	WCHT(N:11)	P value
Men (%)	60(46.5%)	36 (27.9%)	22(17.1%)	11 (8.5%)	0,317
Age(years)	44.9±12.4	47.4±11.2	43.2±12.2	49.0±6.6	0,222
Hip circumference(cm)	95.9±0.16	100.2±0.1	100.1±9.8	105.6±13.4	0,018
BMI(kg/m ²)	25.2±4.0	28.4±6.1	26.4±5.5	30.5±5.2	0,007
WHtR	0.57±0.08	0.60±0.08	0.60±0.06	0.65±0.08	0,010
WHR	0.93±0.14	0.97±0.08	0.96±0.07	0.96±0.09	0,044
Uric acid (mg/mL)	6.5±1.5	6.9±1.8	7.2±1.7	6.9±1.7	0,406
Fasting plasma glucose (mg/dL)	94.2±15.9	100.7±27.9	97.9±20.4	99.3±13.6	0,454
Smoking (n, %)	5(8.3%)	7(19.4%)	6(27.3%)	0(0%)	0.057
Systolic CBP(mmHg)	122.3±12.0	128.2±9.8	159.1±13.1	147.2±10.0	0,000
Diastolic CBP(mmHg)	73.7±7.2	75.2±10.0	93.0±10.4	90.0±13.3	0,000
Average systolic BP(mmHg)	118.9±11.3	148.2±13.7	154.3±18.0	127.4±6.7	0,000
Average diastolic BP(mmHg)	72.2±5.9	87.0±8.7	92.7±12.6	78.4±4.4	0,000

Abbreviations: BMI:Body mass index, WHtR: waistheight ratio, WHR: waist-hip ratio, SNBP: sustained normal hypertension, MHT:masked hypertension, WCHT:white-coat hypertension, SHT: sustained hypertension

OP-87 A SPECIFIC PROPHYLAXIS PROTOCOL IN CMV-IGG POSITIVE KIDNEY TRANSPLANTATION RECIPIENTS (R+): INHIBITION OF CMV REPLICATION IN INDUCTION

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Purpose: The aim of the study is to evaluate the efficacy of a unique CMV-prophylaxis protocol in terms of CMV infection and disease progression in CMV IgG positive kidney transplant recipients.

Material and method: Achievement of negative CMV load with concurrent prophylactic intravenous ganciclovir therapy during induction immunosuppression combined with aciclovir prophylaxis to be administered for 6 months, would yield to reduced incidence of early CMV infection and disease

CMV-DNA was tested during discharge, at the third and sixth months and during events that may be associated with CMV infection. CMV- DNA positive patients received ganciclovir treatment until the viral load became negative. CMV replication was monitored using a quantitative PCR method capable of detecting as few as 42.5 copies/ml. All patients used maintenance aciclovir.

Findings: The file data of 267 patients who had kidney transplantation in 2007-2016 were examined. Thirty-four patients were excluded from the study for various reasons unrelated to the protocol. 42 (18%) patients had CMV-DNA infection. Three patients had CMV disease (1.3%), one of whom died due to pneumonia. DM was a risk factor for CMV-DNA positivity ($p < 0.004$).

Conclusion(s): The incidence of CMV infection and disease is low in renal transplant recipients whose CMV viral load is deleted after concurrent ganciclovir administration with induction immunosuppression.

OP-88 RENAL HILUS LIGATION WITH SINGLE STAPLER IN LAPAROSCOPIC DONOR NEPHRECTOMY

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Purpose: Ligation of renal hilus is the most important stage of laparoscopic donor nephrectomy. Hemorrhage caused by technical problems is a rare but severe complication with significant morbidity and mortality. Hem-o-lok clips are widely used in laparoscopic nephrectomies but they are now rarely used in laparoscopic donor nephrectomies for safety concerns. Laparoscopic staplers are securely used for renal pedicle control. We present our donor nephrectomy cases in which we used one stapler for renal artery and vein ligation.

Material and method: One hundred twenty laparoscopic donor nephrectomy cases who were operated between December 2017 and August 2018 in İstinye University Hospital and İstanbul Aydın University Hospital were retrospectively evaluated. Demographic data, number of arteries and veins, ligation types, operation time and complication rates are recorded.

Findings: All of the operations were done by two surgeons with fully laparoscopic method. Demographic data were given in the table 1. None of the cases were converted to open nephrectomy. There were one renal artery in 110 (91.7%) cases, 2 renal arteries in 9 (7.5%) cases and 3 arteries in 1 (0.8%) case. Renal artery and vein are ligated with single stapler in 115 (95.8%) cases. Double stapler used in 5 (4.2%) patients. There were no implantation problems and bleeding about kidney grafts.

Conclusion(s): Laparoscopic donor nephrectomy is the most used technique for living donor operations. Ligation of renal hilus is the most important stage of this operation in order to extract the kidney without any harm. Vascular stapler is securely used for renal artery and vein ligation therewith high costs. Two or due to the number of vessels sometimes 3 staplers are used in standard technique. In our study operation was finished securely in 95.8% of the patients with single stapler use. We thought that single stapler use for ligating renal hilus is safe in kidneys even with suitable multiple arteries and veins in laparoscopic donor nephrectomy.

OP-89 SITUATIONAL ANALYSIS OF POSTTRANSPLANTATION IMMUNOSUPPRESSION IN THE KYRGYZ REPUBLIC

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Purpose: to study features of behavior of immunosuppression of citizens of the Kyrgyz Republic

Material and method: The basis of this study is an extended study of the world and homeland experience on control of posttransplantation immunosuppression in modern conditions. The research subject of this work are the patients after transplantation (patients 228).

Findings: As immunosuppressive drugs were taken: Tacrolimus, Cyclosporine, Mycophenolate Mofetil, Mycophenolic Acid. Immunosuppression induction therapy: took, Tacrolimus, Mycophenolate Mofetil was taken by 117 (51,3%) patients; Cyclosporine, Mycophenolate Mofetil – by 35 (15%) patients, , Tacrolimus, Mycophenolic Acid – by 62 (28%), Cyclosporine and Mycophenolic Acid - 14 (6,0%). Constant monitoring of creatinine and BUN values in blood serum was conducted. Main obtained results are presented in Table 2. Therapeutic drug monitoring (TDM) of cyclosporine A showed that 70% of patients on the 4th day stable blood concentration in the amount of 200-300 ng/ml is set, required to achieve maximal immunosuppressive effect and the existence of minimal side effects from this drug. It is necessary to note a clear dependence of the determined concentration of drug in the whole blood on the injected dose. The minimum level of concentration (BTL) before the next introduction was 187,3 ng/ml at the examination beginning; on saturation of the drug in the first month of TDM this level increased to 351,3 ng/ml, then the third and the sixth month of monitoring the level of BTL steadily decreased to 237,1 and 206.8 ng/ml, respectively. The maximum concentration (Cmax) had a similar dynamics, i.e. was 1123,5 ng/ml at the axamination beginning, 1224,8 ng/ml – in the first month, gradually decreasing to 835 and 732 ng/ml to the third and the sixth month of monitoring. Tmax - time of occurrence of maximum concentration was 2.2 hours at average. Table No. 2. The overall results of the study of the patients after allogeneic kidney transplantation Values Beginning n=32 1st month n=32 3rd month n=30 4th month n=29 5th month n=28 6th month n=28 Dose (mg/kg/day) 9,9+ 1,2 5,6+ 1,23 3,54+ 0,32 3,12+ 0,71 2,87+0,44 2,49+ 0,52 BTL (ng/ml) 187,3+ 15,8 4 351,3+ 85,1 3 237,1+ 85,1 221,5+ 64,8 211,8+43,7 206,8+ 35,7 Cmax (ng/ml) 1123,5+ 13 8 1224,8+ 31 5 835+ 170,2 5 825+ 168,3 789+ 217,5 732+ 237,6 Tmax (hour) 2,19+ 215,8 2,32+ 0,17 2,25+ 0,12 2,27+0,19 2,23+0,16 2,18+0,21 Creatinine 470,3+ 215,8 137,7+ 25,15 106,6+ 17,27 109,7+ 24,8 103,7+ 56,9 100,8+ 12 (μmol/l) BUN (μmol/l) 30,74+ 14,1 5 15,59+ 7,84 7,9+ 1,27 7,8+ 1,03 7,5+ 1,14 7,2+ 1,05 Constant monitoring of indicators of nephrotoxicity (creatinine, BUN, uric acid in the blood, creatinine in urine) showed a reduction of the high numbers of these indicators to normal level within 10-30 days after transplantation. It should be noted that in 50% of patients decrease of the creatinine level up to 90-100 μmol/l was observed on the 10th day after allogeneic kidney transplantation (AKT), and 30% of patients on the 14th day after AKT; in 80% of patients urea level in blood decreased on 25-30th day after AKT and was 7-8 mmol/l, uric acid decreased in 70% of patients on the 14-20th day to the level of 240-380 mmol/l, creatinine level in urine during the whole monitoring was within normal limits. Over the next 6 months these parameters remained within the normal range, this indicates not only the effective work of the transplanted kidney, but that the drug CON (in capsules) was administered in the right dosages. Analysis of complications of immunosuppression. Induction Absolute number of patients Acute and chronic rejection Overdose CMV- infection Candidiasis Mortality Tacrolimus, Mycophenolate Mofetil 117 (51,3%) 5 (4,0%) 5 (4,0%) 9 (7,7%) 3 (1,3%) 9 (7,7%) Cyclosporine, Mycophenolate Mofetil 35 (15%) 3 (8,5%) 3 (8,5%) 5 17,1%) 2 (5,7%) 7 (20%) Tacrolimus, Mycophenolic Acid 62(28,0%) 3 (4,8%) 2 (3,2%) 7 (11,3%) 5 (8,1%) 2 (3,2%) Cyclosporine and Mycophenolic Acid 14(6,0%) 2 (14,2%) 1 (7,1%) 1 (7,3%) - 1 (7,1%) Total 228 14 (6,1%) 11 (4,8%) 23 (10,1%) 10 (4,4%) 19(8,3%)

Conclusion(s): Overall survival of the transplant from 1999-2017g -84.65% The overall survival of patients from 1999-2017 is 91.7% The return to program hemodialysis is general - 7.02% of them with kidney removal 4.8%, without kidney removal 2.2% 1-year survival rate of the transplant is 94.7% 1 year survival rate of patients - 95.6% 5-year transplant survival is 74.2% 5-year survival of patients-92.2% 10-year transplant survival-52.4% 10-year survival of patients-87%.

OP-90 USE OF DIFFUSIVE WEIGHTED IMAGING (DAG) FROM FUNCTIONS OF RENAL ALLOGRAFT IN EARLY AFTER TRANSPLANTATION

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Purpose: It is aimed to evaluate the usefulness of DAG in the diagnosis of possible early complications (such as ATN and AR) following the functions of renal allografts in the early posttransplant period.

Material and method: Between 1998 and 2016, 24 patients with renal transplantation who were living donor or cadaveric were studied prospectively at Ege University Medical Faculty Organ Transplantation Clinic. The study group consisted of 14 patients with renal transplantation who underwent clinical and laboratory rejection or acute tubular necrosis. In the control group, 10 patients with renal transplant were treated clinically and laboratorial without rejection or acute tubular necrosis. Patients were informed in detail before the procedure and were given informed consent forms and answered questions about the procedures. The patients were in the clinic. Selected as random. Diffusion MR imaging technique was applied to the kidneys in radiology department. The duration of MR exposure was 11 minutes, 56 seconds. The axial DAG single shot is provided with an eco-planar imaging technique. Diffusion gradient b values of 50, 400 and 800 s / mm² were used. ADC measurements were performed using circular ROI (region of interest) from the cortex and medulla sections of the transplant renal upper pole, middle pole, and lower pole. Analysis of the data collected in the study was made using statistical software package SPSS 23

Findings: Twenty-four renal transplant patients who fulfilled the study criteria were included in the study. The mean age of the 14 patients included in the patient group was 44. 6 ± 13. 65 years, while the mean age of the patients in the control group was 41. 81 ± 18. 3 years. The youngest age was 14 and the oldest age was 64. Seven (50%) of the cases were female and 7(50%) were male. Of the cases in the control group, 7 (70%) were female and 3 (30%) were male. Seven of the patient group cases and four of the control group cases were transplanted with the kidney taken from the living body. Seven of the patient group cases and six cases of the control group were transplanted from the cadaver. In our study, urinary protein averages were found to be 63,1 ± 51,7 in 14 patients who were included in the patient group whereas urinary protein averages in the control group were found to be 10,31 ± 3,05. In addition the EGFR mean of 14 patients included in the patient group was found to be 23,311 ± 13,6, while the EGFR average of the patients in the control group was found to be 65,97 ± 12,3. There was a statistically significant and strong correlation between all patients and control groups in all kidney poles . When the relationship between the clinicians AJN and Red answers is examined; Only a statistically significant relation was not found between cortex upper pole and Medulla upper pole . However, there was a statistically significant and strong correlation between all other kidney poles

Conclusion(s): As a result of our study, renal cortical ADC values in patients with renal transplantation decrease compared to the control group. Quantitative renal DAG screening may be helpful in identifying and staging renal injury in renal transplant patients.

OP-91 MI RNA-192 IS NEGATIVELY ASSOCIATED WITH CARDIOVASCULAR EVENTS AMONGST WAIT-LISTED POTENTIAL KIDNEY TRANSPLANT RECIPIENTS ON HEMODIALYSIS OVER A 5 YEAR FOLLOW UP PERIOD

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Abstract: Background Micro RNAs (miRNAs) have been linked to conditions including cardiovascular diseases, post-transplant acute kidney injury and allograft dysfunction. Their chemical stability makes them potentially useful biomarkers. Patients with chronic renal disease on the waiting list for transplantation are susceptible to accelerated vascular calcification and are exposed to higher cardiovascular morbidity and mortality and the predictors for this predictors are still not fully elucidated. mi RNAs may be a new piece in the puzzle, particularly miRNA 192 levels were found to be altered among patients with infarction heart and failure. Aim: This study was carried out to evaluate the link between mi RNA 192 and hard clinical endpoints, namely: vascular calcification, pre-existing major adverse cardiovascular events (MACE), as well as newly occurring MACE and mortality over a 5-year period of prospective follow up among prevalent regular hemodialysis patients who are also considered to be potential kidney transplant recipients. Methods: We screened 64 potential transplant recipients on hemodialysis at our university hospital. Pre-existing clinically overt cardiovascular disease was recorded and new adverse cardiovascular events over an observational period of 5 years were prospectively followed and recorded. The relevant episodes recorded were myocardial infarction, heart failure, acute coronary syndrome, ischemic cerebrovascular disease and/or symptomatic peripheral vascular disease. Vascular calcification was measured in the aorta using computerized tomography (CT) scans of the abdominal aorta and micro RNA 192 was measured. Results The final study population included 55 patients followed for 63 months (mean observation period was 46.8 (3-63 months). Evidence of preexisting cardiovascular disease was present in 8 patients and vascular calcification in the abdominal aorta was found in 23 patients. During the observation period we recorded 19 cardiovascular events in 17 patients (15 cases of acute coronary syndrome, 2 acute peripheral vascular disease and 2 cases of ischemic stroke). Micro RNA 192 was significantly lower in patients who had preexisting cardiovascular disease ($p=0.015$) as well and in all patients who had experienced any event by the end of the observational period ($p=0.012$). A multi-regression analysis model including micro RNA, age, dialysis vintage, intradialytic hypotension, vascular calcification, diabetes, systolic blood pressure, smoking found the only independently correlating factor to cardiovascular events in this model to be micro RNA ($\beta = -0.286$, $P=0.05$). The levels were also lower, albeit not significantly so, in patients with vascular calcification as well as those who expired during the observational period of the study. Conclusions: MiRNA 192 levels are significantly lower among potential kidney transplant recipients experiencing cardiovascular events while on hemodialysis. Levels were also lower although not significantly so amongst those with vascular calcification and those expiring within 5 years of follow up.

OP-92 FREQUENCY OF HLA AND DSA IN LONG-TERM LIVING DONOR KIDNEY TRANSPLANTATION

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Purpose: Anti-HLA (human leukocyte antigene) antibodies have been shown to be associated with late graft loss. In this study, we defined the incidence, dynamics, and profiles of anti-HLA antibodies and their impact on graft outcome in long-term kidney recipients.

Method: One hundred eighteen patients who have living donors, transplated over than five years, and functional grafts included the study. Anti-HLA class I and class II antibodies in serum samples identified by luminex method. Donor specific antibody (DSA) was examined in patients with positive anti-HLA antibody by luminex method.

Results: The number of male and female patients was 83 (70.3%) and 35 (29.7%) respectively. Mean age was 38.9±10.8. Baseline characteristics of patients are given in Table 1. Anti-HLA class I and/or II antibodies was detected in 19 (16.1%) kidney transplant patients. Anti-HLA class I, anti-HLA class II, both class I and class II antibodies was positive in 4, 9 and 6 patients respectively. DSA was positive in 12 (10.2%) patients. Anti-HLA antibodies were associated with higher rate of cyclosporine use, acute cellular rejection and chronic active humoral rejection. Presence of DSA was associated with lower rate of tacrolimus use, young age of donor, higher rate of cyclosporin use and chronic active humoral rejection.

Conclusion: The presence of anti-HLA antibodies and DSA is related with poor graft survival, dysfunction of transplant, and proteinuria. Long term renal transplant patients should be followed for the presence of anti-HLA antibody and DSA.

Table 1. Baseline characteristics of all patients (n=118)

Recipient age (years)	38.9±10.8
Male gender, n (%)	83 (70.3)
BMI (kg/m ²)	23.0±4.1
Donor age (years)	46.9±10.6
Dialysis duration, (months)	26.0±23.8
Re-transplantation, n (%)	1 (0.8)
Pregnancy, n (%)	13 (34.2)
HLA mismatch number	2.4 ±1.4
Time after transplantation (months)	124.3±40.6

BMI, body mass index; HLA, human leukocyte antigen

OP-93 CHANGES IN FRAILTY AFTER KIDNEY TRANSPLANTATION

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Purpose: Frailty is, in general, characterized as an increased vulnerability to stressors with a decline in reserve and function of multiple physiologic systems. The purpose of the current prospective multi-center study was to evaluate the natural history of frailty 6 months after kidney transplantation (KT).

Material and method: From January 2016 through February 2018, a total of 84 patients undergoing kidney transplantation in Lutfi Kirdar Training Hospital and Bahcesehir University Goztepe Medical Park Hospital were enrolled in this study. The Fried frailty score was measured at the time of KT and during clinical follow-up at 6th month. Using a Cox proportional hazards model, factors associated with improvements in frailty score after KT were identified.

Findings: There were no statistically significant differences between 2 study groups regarding age, gender, the duration and etiology of end stage renal disease, the type of dialysis regimen and the source of transplantation (living or cadaveric) (Table 1). Before transplantation, mean serum albumin is lower ($p=0.042$), mean serum CRP is higher ($p=0.05$) in frail patients when compared to non-frails (Table 1). At KT, 22,6 % of recipients were frail; 6 months after KT, 16,6 % were frail ($p<0.001$). Pre-KT frailty status (relative risk (RR)=1.48, 95%CI=1.29-1.74, $p<0.001$), recipient diabetes mellitus (RR=1.28, 95%CI=1.06-1.48, $p=0.002$), delayed graft function (RR=1.24, 95%CI=1.08-1.46, $p=0.004$), and anti-thymocyte globulin (ATG) induction therapy (RR=1.16, 95%CI=1.04-1.64, $p=0.003$) were independently associated with mid-term changes in frailty score (Table 2).

Conclusion(s): This study suggest that, in adult KT recipients, frailty was found to be improved by 6 months. Frailty status at the time of transplantation, recipient diabetes mellitus, delayed graft function, and ATG induction therapy were independent factors associated with steeper mid-term trajectories of frailty score.

OP-94 INSULIN RESISTANCE IN NON-OBESE RENAL ALLOGRAFT RECIPIENTS ON MAINTENANCE DOSE OF CSA OR TACROLIMUS

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Purpose: In comparison to cyclosporine (CsA), tacrolimus (Tac) seems to be more diabetogenic in renal transplant recipients, and post-transplant diabetes mellitus is more common in patients using Tac, especially during the first year after transplantation. However, at maintenance doses, there are no comparative data of insulin resistance (IR) in patients using Tac or CsA. The purpose of this study was to investigate the IR indexes in patients on maintenance dose of CsA or Tac.

Material and method: Forty-five non-diabetic and non-obese renal transplant recipients participated in the study (M/F 30/15, age: 36±9 years); 27 patients were on CsA and 18 were on Tac. All had stable graft function, were transplanted at least 6 months previously and were receiving maintenance dose of steroid (5 mg/day), azathioprine or mycophenolate mofetil, and calcineurin inhibitors (CsA: 2.14±0.46 or Tac: 0.06±0.03 mg/kg/day). IR was evaluated by Homeostasis Model Assessment (HOMA) index and Composite Body Insulin Sensitivity Index (C-ISI).

Findings: Demographic and laboratory features were compared and are demonstrated in Table 1 for the groups. We did not determine any significant difference in HOMA and C-ISI levels between patients using CsA or Tac (1.5±1.3 vs 1.5±1.1, p>0.05 and 9.9±5.8 vs 14.6±11.7 p>0.05, respectively). There was a significant correlation between creatinine and HOMA values.

Table 1. Demographic and laboratory features of the groups.

	CsA (n=27)	Tac (n=18)	p
Age (year)	37±10	34±8	NS
Body mass index (kg/m ²)	23± 3	22±3	NS
Post-Tx duration (mo)	52±22	45±16	NS
Deceased/Living-Related Tx	7/20	5/13	NS
Systolic blood pressure (mmHg)	130±18	131±10	NS
Diastolic blood pressure (mmHg)	80±8	79±7	NS
Serum glucose (mg/dL)	79±8	76±6	NS
Uric acid (mg/dL)	6±1	6±1	NS
Creatinine clearance (ml/min)	56±14	60±18	NS
Triglyceride (mg/dL)	177±93	131±52	NS
HDL-cholesterol (mg/dL)	56±12	57±14	NS
LDL-cholesterol (mg/dL)	103±25	93±20	NS
Insulin resistance (HOMA >2.5) n (%)	5(19)	5(28)	NS
HOMA	1.5±1.3	1.5±1.1	NS
C-ISI	9.9±5.8	14.6±11.7	NS

HOMA: Homeostasis Model Assessment Index, C-ISI: Composite Body Insulin Sensitivity Index, NS: not significant.

Conclusion(s): There was no difference in IR indexes in renal transplant recipients receiving maintenance dose of either CsA or Tac.

OP-95 THE LIVE DONOR ASSESSMENT TOOL: FINDINGS FROM TURKISH VALIDITY AND RELIABILITY STUDY

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Purpose: The live donor organ donation is an important treatment option for patients with end-stage organ disease. In addition to the medical work-up, psychiatric and psychosocial evaluation is essential to predict positive outcome for potential candidates. The Live Donor Assessment Tool (LDAT) is a semi-structured tool developed by Iacoviello et al. (2015) in order to assess potential live donor candidates in a standardised manner. We aimed to assess correlations between standardised psychiatric and psychosocial evaluation and LDAT scores in a sample of liver live donor candidates.

Material and method: The data analysed here were taken from Turkish validity and reliability study of LDAT which is still going on. Standardised psychiatric and psychosocial evaluations and evaluations by using LDAT were done by experienced psychiatrists and psychiatry residents whom were trained to done assessments by using LDAT with prospective design. All the patients whom were recruited to the study provided informed consent. Standardised psychiatric and psychosocial evaluation reveals four-category outcome (poor, average, good, very good) and LDAT score ranges between 0-82. Correlation analysis were done by using Spearmans correlation analysis.

Findings: Mean age of the sample was $37,14 \pm 10,65$. 58% (n=29) of the sample was male. Standardised psychiatric and psychosocial evaluation outcome were as follows; 10% (n=5) poor, 10% (n=5) average, 40%(n=20) good, 40%(n=20) very good. Mean LDAT score was $66,08 \pm 6,68$ and ranges between 45-76. Spearmans correlation coefficient was 0,612 ($p<0,001$), which implicates strong correlation between LDAT total scores and standardised psychiatric and psychosocial evaluation.

Conclusion(s): Although the Turkish validity and reliability study of LDAT is still going on these preliminary findings implicate that LDAT could be a promising tool for assessment of potential live donor candidates.

OP-96 NORMAL SALINE VERSUS BALANCED CRYSTALLOID SOLUTIONS FOR KIDNEY TRANSPLANTATION

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Purpose: The ideal crystalloid solution to use perioperatively in patients undergoing kidney transplantation remains unclear. Normal saline, the intravenous fluid commonly using during the peri-operative period, contains a high chloride content, which may be associated with hyperchloremic metabolic acidosis and acute kidney injury. Balanced electrolyte solutions (BES) have a lower chloride content. The purpose of the study was to determine if a balanced electrolyte solution prevents the incidence of hyperchloremia and hyperkalemia during renal transplantation.

Material and method: We compared NS with BES given during surgery in patients undergoing kidney transplantation. The primary outcome was hyperchloremia and hyperkalemia within 24 h after surgery. Secondary outcomes were levels of serum creatinine at preoperative and within 5 days after transplantation, the incidence of acute rejection episodes, graft failure, length of stay at hospital and mortality.

Findings: A total of 60 patients were included in the study (30 in BES group and 30 in NS group). The mean postoperative chloride was 103 mmol/L (95% confidence interval [CI] = 101 to 105) in the NS group and 100 mmol/L (95% CI = 98-102) in the BES group ($P < 0.05$) (Figure 1). There were no significant differences in demographic characteristics, serum creatinine values within 5 days (Figure 2), short-term outcomes and graft survival rates at 28 days postoperatively between group NS and group BES ($P > 0.05$).

Conclusion(s): Balanced electrolyte solutions are associated with lower serum chloride levels than patients receiving NS, however, these results need to be confirmed by sufficiently powered, controlled studies on larger patient populations whether BES lead to improved graft outcomes compared to NS.

OP-97 ASSESSMENT OF MAJOR POST-TRANSPLANT COMPLICATIONS RISK AMONG POTENTIAL KIDNEY TRANSPLANT RECIPIENTS IN SAINT-LOUIS, SENEGAL

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Purpose: Recipients of kidney transplants are a very heterogeneous population, and the risk of post-transplantation complications markedly vary according to recipients status. Many cohort studies have identified pre-transplant recipient variables associated with different transplant outcomes. Scoring systems that predict survival outcome after kidney transplantation can help physicians improve risk stratification among recipients and make the best therapeutic decision. This study aimed to assess 1-year risk of majors adverse events in potential kidney transplant recipients at Saint-Louis University Hospital.

Material and method: We performed a cross-sectional study including 65 end-stage renal disease patients who were treated in the hemodialysis unit at Saint-Louis University Hospital. Scoring based was based on simple clinical tool with four items (age, cardiopulmonary factors, functional status, and metabolic parameters) reported to predict risk of severe adverse events during the first post-transplant year. Data were analysed using STATA 12.0 and presented as mean (SD), median (IQR) or percentage as appropriate.

Findings: Mean age of patients were 46.9 (23.5) years and 53% were males. median dialysis duration was 18.9 months and the main causes of kidney disease were hypertension and diabetes. A history of coronary artery disease was present in 22.3% of patients, and 33.5% had a high cardiovascular risk. According the combined clinical score, 63.8% of potential kidney transplant recipients presented a high risk of adverse events and only 12.5% had a low risk of developing majors complications during their first year post-transplantation. Cardio-metabolic parameters were the most determinant factors in this risk stratification.

Conclusion(s): This study shows that based on a simple pretransplant clinical assessment, two third of our patients are of high risk for major adverse events during their first post-transplantation year. Such information could help during information and counselling of kidney donor and recipient couples.

OP-98 CHANGING OF IMMUNOSUPPRESSIVE TREATMENT AND RESULTS IN INTENSIVE CARE UNIT: SINGLE CENTER EXPERIENCE OF RENAL TRANSPLANT PATIENTS

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Purpose: The aim of this study is to evaluate the changes in immunosuppressive treatments (IST) during intensive care unit (ICU) and evaluate the results of renal transplant patients (RTP) in ICU.

Material and method: We evaluated retrospectively our RTP in ICU between 2012-2017. The IST and the result were taken from the ICU documents.

Findings: A total of 31 patients were suitable for the analysis. They were all under the triple IST including Tac+MMF+Corticosteroid (CS) before the admission. During ICU, 16 patients (%51,6) died and a total of 10 patient were lost with functional graft. In ICU, change in IST is as follows; a total of the 23 patients (74.2%) were given only CS, 8 patients (25.8%) were changed from triple to two drugs IST. For 5 patients (16.1%) MMF+CS, 3 patients (9,7%) were given Tac+CS. Acute rejection was not developed in any of the patient.

Conclusion(s): Reduction in IST are common and reduced dose double or single CS applications were seem to be safe in these patients.

OP-99 HAND ASSISTED NEPHRECTOMY PREDISPOSES INCISIONAL HERNIATION IN OBESE LIVING DONORS

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Purpose: Living kidney donation from donors with body mass index(BMI) over 30 can bring risks for donor and the recipients. In this retrospective study, we evaluated the effect of donor obesity on donors long term surveillance and recipient outcomes.

Material and method: We performed hand assisted retroperitoneoscopic donor nephrectomy(HARPDN) in 565 living kidney transplantation between February 2009, and December 2015. 152 donors(26,9%) had BMI over 30 and described as obese group. 363 donors(73,1%) described as non-obese group had BMI less than 30. The obese donors were older, and female gender was dominant. Incision to kidney removal time, mean follow-up period, postoperative complications, weight gained after surgery, serum creatinine level (postop day 1-end of last follow-up) was recorded for the donors. Serum creatinine level (postop day 5-one year), and immediate function of transplanted kidney was recorded for recipients.

Findings: Mean incision to kidney removal period was longer in obese patients. (99.23 ± 27.49 min. vs 106.37 ± 34.99 min $p=0,012$). 18,9% of non-obese donors, and 12,5% of obese donors had nephrectomy with multiple arteries. Mean follow-up period was 51.41 ± 29.20 months for obese group. Weight gain after kidney donation was not statistically significant between the two groups(28,9%/34,5%). Postoperative complications including incisional hernia(4,2%/1,3%), and incision site infection (2,1%/0,8%) were seen higher in obese. The incidence of herniation was statistically significant in obese group($p=0,037$). The outcome of transplanted kidneys were similar in both groups. There was no significant difference between recipient serum creatinine levels at 5th day and 1st year after surgery. 2,9% of the recipients received kidneys from non-obese donors had slow, and 0,7% of them had delayed graft function, while these numbers were 3,9%, and 1,3% respectively in recipients received kidneys from obese.

Conclusion(s): The HARPDN operation time is longer for donors with BMI higher than 30. Postoperative kidney functions concerning the outcomes of obese and non-obese living donors are similar in our series. The recipients who received kidney from obese donors had similar kidney functions at the end of the initial year as well. There was no difference in postoperative complications except incisional hernia, that is statistically more significant in obese donors.

OP-100 USE OF TACROLIMUS PREGNANCY AFTER KIDNEY TRANSPLANTATION OUR-10 YEAR SINGLE CENTER EXPERIENCE

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Purpose: The first birth after renal transplantation (RT) was reported in 1956. Tacrolimus an immunosuppressive which belongs to macrolide group is used after kidney, liver, heart and other solid organ transplantations. Birth tacrolimus usage during pregnancy after RT was first reported 1993 USA and Germany. Lower birth weight, premature labor, eclampsia and more fetal-maternal complications are observed in immunosuppressive patients. Pharmacokinetics of many drugs change in pregnancy. Publications about pharmacokinetic so tacrolimus are very limited. In this post we wanted to share our experiences with pregnancy in our clinic.

Material and method: Patients who used tacrolimus during their pregnancies after RT at Antalya Medicalpark Organ Transplantation Unit, during November 2008- July 2018 were taken in to study. Patient's gestational age, pregnancy and drug levels, is charge and labour creatin clearances were examined.

Findings: Four thousand six hundred thirty five RT were made between November 2008-July 2018 786 of patients were female between 18-45 ages. Pregnancy occurred 41 patients after RT, 10 medical abortions were performed to the unplanned pregnant after RT who used sirolimus and mikofenalat mofetil. Thirty one pregnancies terminated with labour. Second RT were performed in 2 patients, 1 patient had two births which one of them was triplet. Five patients who were using ciclosporine were excluded from the study. Twenty six pregnancies who used tacrolimus after RT were included to the study.

Ages of patients during RT were 25.9 ± 4.2 (18-37). Duration of waiting for pregnancy after RT was 45.6 ± 10.7 (25-69) months. The mean age of birth was 31.3 ± 4.2 (22-40). The mean hemodialysis 18.8 ± 35 months (0-145), the mean birth weight 2200 ± 645 gram (955-2990).

The mean creatine levels after RT at noticed time are listed below; discharge creatine after RT 0.9 ± 0.2 mg/dl (0.4-1.7), 1 st trimester creatine 0.9 ± 0.2 mg/dl (0.3-1.8), 2 nd trimester creatine 0.9 ± 0.2 mg/dl (0.3-1.9), 3 rd trimester creatine 1.1 ± 0.5 mg/dl (0.6-2.1).

Tacrolimus levels during noticed times are listed below. Drug level during discharge after RT 9.1 ± 1.3 (7-11.6) µg/dl. Drug level during 1 st trimester after RT 5.4 ± 1.2 (2.2-7.7) µg/dl. Drug level during 2 nd trimester after RT 4.1 ± 1.2 (2.5-7.4) µg/dl. Drug level during 3 rd trimester after RT 4.5 ± 1.2 (1.4-7.0) µg/dl.

Discharge creatin clearance was 92 ± 26.3 ml/min, birth creatine clearance 97.6 ± 37.9 ml/min (37-167). We measured the creatine clearance by use of the Cockcroft-Gault formula in the pregnancy group before pregnancy and during delivery [Cockcroft-Gault formula: $(140 - \text{age}) \times \text{body weight (kg)} / 72 \times \text{plasma creatine level (mg/dL)} \times 0.85$].

Five patients had pre-eclampsia, one patient had abortion immines, two patients had hypertension due to pregnancy, one patient had placental placenta. Four patients were conceived with IVF. There was a breech presentation in 1 patient with preeclampsia. Acute rejection developed in 3 postpartum patients, and renal values normalized with medical treatment. All the babies live and healthy, postpartum graft loss wasn't observed.

Conclusion(s): Pregnancy following RT is risk for both mother and baby. Abortion, preterm delivery hypertension due to pregnancy, pre eclampsia, rejection; premature birth, low birth weight, congenital anomalies can be observed. If a pregnancy planned after RT gynecologist, nephrologist and newborn expert sections should work in a coordinated fashion. If we are planning pregnancies after RT at our center we wait at least 2 years after the RT, graft function should be normal and not observe any signs of HT and proteinuria. Our recommendation is both the level of tacrolimus after RT, is 4.5-6 µg/dl.

OP-101 LAPAROSCOPIC DONOR NEPHRECTOMY EXPERIENCES

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Antalya Medicalpark Organ Transplantation Unit

Objective: The definitive treatment of end stage renal failure is renal transplantation. Cadavers or live donors are used as graft source. Donor nephrectomy differs from other nephrectomies because kidney is removed and used for recipient with chronic renal failure. Living donor nephrectomies need more care for both donors' and recipients' outcomes. There are 5 methods for donor nephrectomy surgery including open nephrectomy, hand-assisted laparoscopic nephrectomy, laparoscopic nephrectomy, retroperitoneal laparoscopic nephrectomy and robotic donor nephrectomy. We aimed to represent our experience of six years including 2256 laparoscopic donor nephrectomies in this report.

Method: Patients who underwent laparoscopic donor nephrectomy surgery at Antalya Medicalpark Organ Transplantation Center between August 2012 and August 2018 were retrospectively screened. Gender, body mass index, duration of operation, number and position of renal arteries, transition to open surgery were detected.

Results: From August 2012 to August 2018, 2256 laparoscopic donor nephrectomy operations were performed in our clinic. The number of male patients were 997 while as the number of female patients were 1249. The mean age was 45.8 (18-85). The mean operation of duration was 65.3 minutes, the mean duration of hot ischemia was 179 seconds (139-415 seconds), body mass index was 26.8 (16-47). 1683 patients had single arteries, 558 patients had two arteries, 11 patients had 3 arteries and 3 patients had 4 arteries. Transition to open surgery was seen in 23 cases. 31 laparoscopic right donor nephrectomy was performed.

Discussion: Donor nephrectomy is a difficult operation and all precautions should be taken to avoid graft organ damage. According to our results, laparoscopic donor nephrectomy is easier than open nephrectomy. Laparoscopic donor nephrectomies with adequate surgical experience can be applied to all patients routinely.

OP-102 VASCULAR SOLUTIONS IN PEDIATRIC RENAL TRANSPLANTATION WITH MULTIPLE ARTERIES

Ali İhsan Dokucu, Mesut Demir, Cumhuriyet Yesildal, Nurver Akinci, Sinan Levent Kirecci

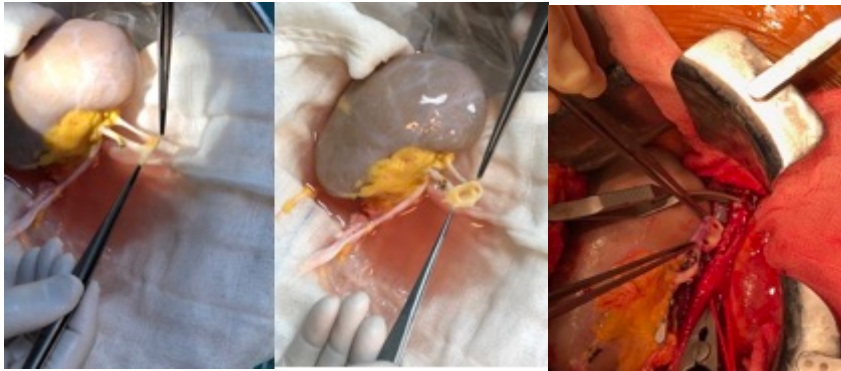
University Of Health And Science Sisli Etfal Training And Research Hospital

Purpose: Pediatric kidney transplants certainly have difficulties. Therefore, the risk of vascular and urological complications is high. In the literature, there are limited publications in pediatric transplants as well as descriptions of multivessel anastomosis resolution in adult kidney transplants. In addition to technical difficulties such as vessel diameter mismatch in pediatric transplants, increased thrombosis is of primary importance at risk.

Material and method: Due to the small number of pediatric donors, the use of grafts from cadaveric donors, which usually cannot be planned in advance, requires immediate resolution. We present our solutions and results of pediatric transplants in 4 cases with multiple renal arteries, which our clinic has encountered in the last year

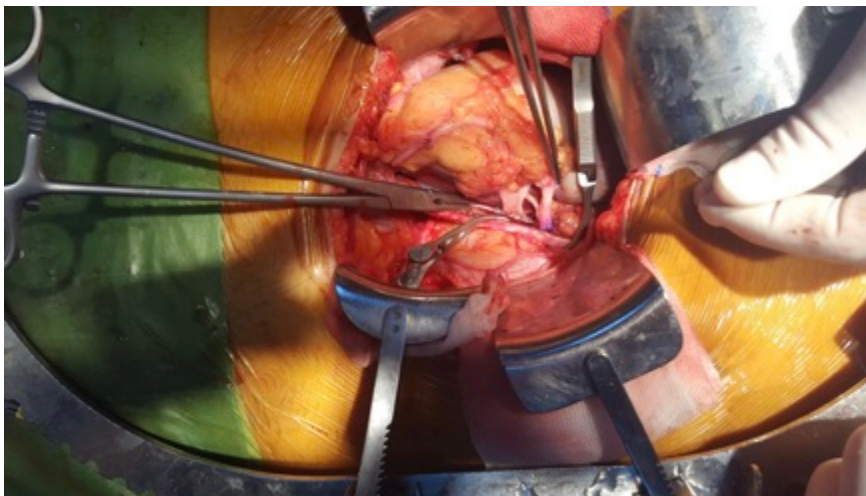
Findings: Aortic Vascular patch (2 arteries)

A 12-year-old boy has a cadaveric donor. During the back table 2 arteries were observed then they prepared as an aortic patch. Then iliac arterial anastomosis performed alone. 9 month after the operation his creatinine is 0.82



Double Renal Artery / End-to-side anastomosis

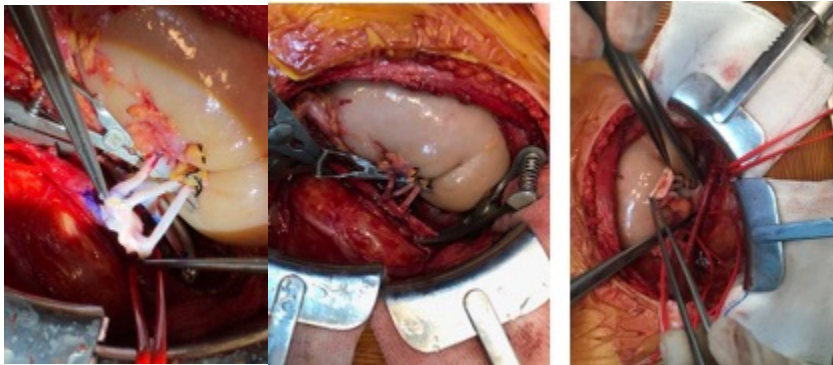
15 years old boy has a cadaveric donor. During the back table a second artery feeding lower part of the kidney observed. Main and secondary artery were converted to a single artery with an end-to-side anastomosis at the bench then iliac arterial anastomosis performed alone. 9 month after the operation his creatinine is 0.75



Aortic Vascular patch (3 arteries)

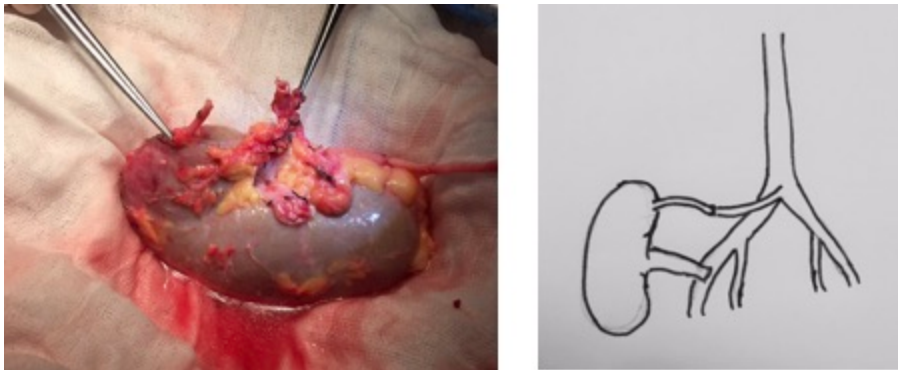
14 year old girl has a cadaveric graft. At the back table, 3 artery was observed. Two of them opening through the same mouth. Renal vein passes through between these three arteries. Three arteries prepared as a single 3cm aortic patch. Then commun iliac arterial anastomosis performed alone. The vein anastomosed to the iliac vein that

passes through the window between the arteries as it is natural position. No complication was seen postoperatively. 6 month after the operation his creatinine is 0.9



Upper pole renal artery - a. sacralis mediana anastomosis

A 12-year-old girl has a live kidney transplant from his father. A 3 mm diameter artery feeding the upper pole detected on the graft. The length of this artery was insufficient for the anastomosis. Therefore sacralis mediana transposed and end-to-end anastomosis performed. No complication was seen postoperatively. 6 month after the operation her creatinine is 0,7



Conclusion(s): Vascular variations in kidney are common. In pediatric renal transplantation cases, these variations will make surgical repair more qualified. As a result, multiple arterial structures in pediatric transplants cause technical difficulties but do not adversely affect graft survival if individualized solutions are provided

OP-103 INCISIONAL COMPLICATIONS AND COSMETIC EVALUATION AFTER HAND-ASSISTED RETROPERITONEOSCOPIC DONOR NEPHRECTOMY

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Purpose: Hand assisted retroperitoneoscopic(HARP) donor nephrectomy is a safe surgical technique, preventing major complications but incision-site complications may be more frequent in hand assisted approach. We evaluated long term incisional complication rates and cosmetic outcomes after HARP donor nephrectomy in our series

Material and method: We performed HARP nephrectomy to 609 donors in between February 2009 and June 2016. The donors were invited for physical examination, and to interview face to face. 209 donors (35,3%) participated to the study. Sex, age ,body mass index (BMI), mean follow-up period, incision related outcomes of cosmesis, and postoperative complications were evaluated. Body image(BIQ) and cosmesis(scar test) questionnaires (CSQ) were applied. CSQ score range 3 to 24, and BIQ score range 5 to 20. Higher cosmesis and lesser body image scores indicates greater satisfaction.

Findings:191 donors had paramedian (91,4%) and 18 donors had Pfannenstiel incision (8,6%). 121 donors were female (57,9%).The donor mean age was (49,1±11,8), and the mean BMI of donors were 29,7±5,1. BMI was significantly lower in Pfannenstiel group(p<0,001). The mean follow-up period was 57±29,1 months. The mean of cosmetic scores revealed that donors had almost excellent cosmetic satisfaction. The mean BIQ score was 6,06±1,8, and the CSQ score was 19,3±4,7. The BIQ score was significantly better in donors with Pfannenstiel incisions (p<0,001) but there was no statistical significance in CSQ score. The rate of wound infection was 4.8% and incisional herniation was 4.8%. There was no statistical significance in postoperative wound infection and incisional hernia between the types of skin incisions, but incisional hernia was more frequent in donors with paramedian incisions (5,2%) . 6 donors(2,9%) required re-hospitalization because of wound complications.

Conclusion(s): HARP donor nephrectomy avoids intraabdominal complications but rate of incision-site complications can be higher in hand assisted procedure. The donors were convinced from the cosmetic outcome after HARP donor nephrectomy. The ones who had Pfannenstiel incision has better satisfaction according to BIQ score.

OP-104 INTRODUCING ROBOT-ASSISTED DONOR NEPHRECTOMY AFTER EXPERIENCE IN HAND-ASSISTED RETROPERITONEOSCOPIC APPROACH

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Purpose: Robot-assisted surgery offers improved patient safety. Therefore, robot-assisted donor nephrectomy (RADN) is an important alternative in living donor kidney transplantation. We are presenting our initial series of RADN comparing with our adopted surgical technique, hand-assisted retroperitoneoscopic donor nephrectomy (HARPDN) performed at the same time interval.

Material and method: We performed 12 RADN and 27 HARPDN with Pfannenstiel incision between March 2018 and July 2018. We evaluated the demographics, operation duration, warm/cold ischemia time, estimated blood loss, length of hospital stay, postoperative complications, donor and recipient serum creatinine levels, retrospectively.

Findings: Total of 23 females, and 16 males underwent donor nephrectomy with RADN (7F/5M), and HARPDN (16F/11M). The average age of donors were 42.6 ± 12.4 years. 34 donors had left and 5 donors had right sided donor nephrectomy. All donors had left sided donor nephrectomy in RADN group. There was 1 case with multiple renal artery in the RADN group and 4 donors had multiple renal arteries in the HARPDN group. The mean operation time (OT) was 190 min (120-340) with RADN, and 100 min (85-120) with HARPDN, and it was statistically significant ($p < 0.001$). The mean warm ischemia time (WIT) in HARPDN group was significantly shorter when compared with RADN group ($90 \pm 41 / 234 \pm 73$ sec, $p < 0.001$). The mean length of hospitalization period of donors were 3.25 ± 0.62 days in RADN group, and 3.07 ± 0.26 days in HARPDN group, while it was 5.33 ± 0.77 , and 5.26 ± 0.71 days in recipients, respectively. There was no significant difference in cold ischemia time between the two groups ($61.67 \pm 13.54 / 59.63 \pm 15.12$ min), and both groups had similar intraoperative estimated blood loss (mean 35 ± 17 cc). Postoperative 5th day/1st month recipient mean creatinine levels were ($1.37 / 1.24$ vs $1.13 / 1.31$), and postoperative 3rd day/1st month donor mean creatinine levels were ($0.78 / 0.95$ vs $0.81 / 0.98$), respectively. There was no significant statistical difference in creatinine levels between RADN and HARPDN. Postoperative complications were not detected in any of the patients. The transplanted kidneys were functioning well at the end of the first postoperative month.

Conclusion(s): We introduced RADN as an alternative surgical technique in our clinic without any postoperative complication. Depending on the learning curve, the OT and WIT was longer in RADN group but this situation had no negative impact on donor surveillance, and on recipient immediate and early graft function. RADN can be performed safely even in learning curve period, and it can be a good option in selected group of patients who are not good candidates for HARPDN.

OP-105 LIGASURE® VERSUS CLAMP AND TIE FOR BACK TABLE KIDNEY DISSECTION

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Purpose: The aim of this study is to compare LigaSure® with the conventional clamp and tie (CCT) technique in back table kidney dissection regarding postoperative drainage.

Material and method: One hundred consecutive patients who were operated between December 2017 and August 2018 in İstinye University Hospital and İstanbul Aydın University Hospital were divided into two groups; conventional clamp and tie (CCT) and LigaSure® group. Dissection of perirenal fatty tissues and renal hilus was completed with LigaSure® in group one. Scissors and CCT technique used for dissection of perirenal fatty tissues and renal hilus respectively in group two. Daily and total postoperative drainage, removal time of the drain were recorded.

Findings: There were no differences between groups regarding age, gender and body mass index (Table 1). There were no statistically significant differences between groups for daily drainage for postoperative first, second, third days, total drainage and removal time of the drain (Table 2).

Conclusion(s): Lymphocele is one of the most frequent complications which was seen after kidney transplantation. Our hypothesis that kidney derived lymphatic drainage can be reduced with LigaSure® is not proven with this study. Because of its high cost, use of LigaSure® is not superior to CCT technique for back table kidney dissection.

OP-106 COULD BODY SHAPE INDEX PREDICT METABOLIC SYNDROME AND INSULIN RESISTANCE IN KIDNEY TRANSPLANT RECIPIENTS?

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Abstract: Kidney transplantation is the gold standard method for the treatment of end-stage renal failure. Despite the increase in short-term graft survival with the development of potent immunosuppressive drugs, long-term survival is still low due to cardiovascular diseases (CVD) and chronic allograft dysfunction (CAD). Metabolic disorders such as obesity, hyperglycemia, dyslipidemia, and hypertension are associated with increased risk for CVD and CAD. Obesity plays a key role of the development of these metabolic disorders.

Various methods have been developed to evaluate obesity. The gold standards for evaluating visceral fat tissue are magnetic resonance (MR) imaging, computed tomography (CT), and dual X-ray absorption. Simple methods are needed to distinguish regional fat deposition. Body shape index (BSI) is a method based on the recently developed waist circumference adjusted for height and weight. High BSI values have been found to be associated with early mortality in the American population.

In this study we aided to the clinical usefulness of the ABSI to predict the presence of insulin resistance (IR) and metabolic syndrome (MetS).

Methods: One hundred fifty-five patients were included in the study. Diabetes mellitus was present 33 of the 155 patients. Of 122 patients without diabetes, 33 had IR. MetS prevalence was %37.4 (58/155).

The area under curves (CI 95%) of ABSI for predicting MetSR and IR were 0, 59 (0, 49-0, 68) and 0,59 (0, 47-0, 71), respectively (Figure 1 and 2).

Conclusion: According to these results, we suggested that ABSI was not a good predictor of IR and MetS in kidney transplant recipients. However, further, randomized studies are required to reach a definite judgment.

Figure 1: ROC curve analysis of anthropometric measures in MetS risk prediction

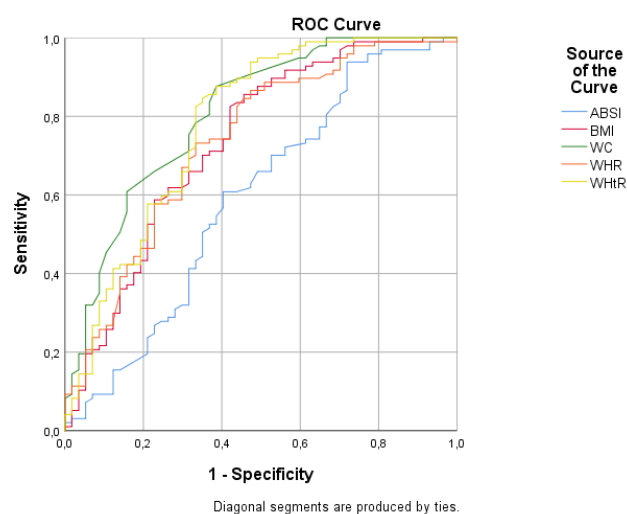
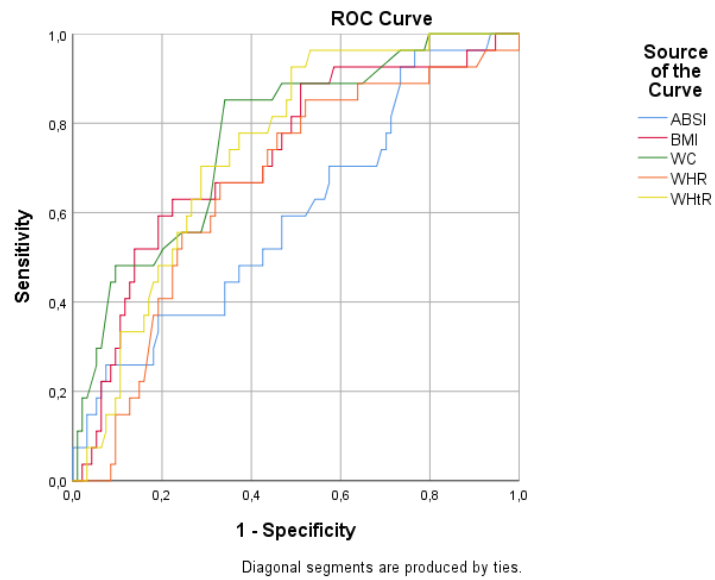


Figure 2: ROC curve analysis of anthropometric measures in IR risk prediction



OP-107 LIVING DONOR KIDNEY TRANSPLANTATION WITH VASCULAR ANOMALIES: EXPERIENCE OF BEZMIALEM VAKIF UNIVERSITY

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Bezmialem Vakif University

Purpose: Kidney transplantation in patients with vascular anomalies requires technical experience. There are studies showing that these grafts have higher complication rates in long term. 90% of the transplants were received from living donors in the first six months of 2018. This results in dealing with possible vascular anomalies. In this report we present the results of our living donor kidney transplantations in patients with vascular anomalies.

Material and method: Of the 24 living laparoscopic donor nephrectomies performed between 2015 and 2018, 6 had vascular anomalies. Renal arterial and venous anatomies of the donors were demonstrated by 3D reconstructed CT renal angiography. Depending on the case, transplantation was performed by anastomosing the vessel separately, pantaloon anastomosis or by ligating the vessel proximally.

Findings: Two of the patients had double left renal vein. In these patients veins were separately anastomosed to external iliac vein. In one patient it was detected that left renal vein was joining vena cava inferiorly. Two patients had lower polar artery originating from aorta. Anastomosis was performed by pantaloon anastomosis of main renal artery and polar artery to external iliac artery. One patient had upper polar artery originating from proximal segment of renal artery. In this case, the arterial control was performed more proximally and no further intervention was needed. Mean age of the patients was 41.2 years. Mean operative time was 258 minutes. Mean warm ischemia time and mean cold ischemia time were 2.6 minutes and 114 minutes respectively. Mean creatinine level was 1.1 mg/dl at the postoperative 1st month and 1.22 mg/dl at the postoperative 6th month. No anastomotic complication was observed in early postoperative period and in long term.

Conclusion(s): Although transplantation of kidneys with vascular anomalies can be very challenging it is not a contraindication but the risk of acute tubular necrosis is reported to be higher in patients multiple renal artery anastomoses in large series.

OP-108 CONGENITAL NEPHROTIC SYNDROME: TRANSPLANTATION BEFORE OR AFTER CHRONIC RENAL FAILURE?

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Akdeniz University Medical Faculty, Department Of Pediatric Nephrology

Purpose: Congenital nephrotic syndrome (CNS) is a genetic disease that is present in the antenatal period or during the first 3 months of life. In this study, we aimed to compare growth parameters of patients with CNS who were transplanted with normal glomerular filtration rate (GFR) and that after ESRD developed.

Material and method: Patients with a diagnosis of CNS who underwent renal transplantation between 2005 and 2017 and who had a minimum follow-up period of 6 months were evaluated retrospectively. Children at Stage 4-5 CKD or patients receiving dialysis at pre-transplant period were defined as group 1; patients with normal glomerular filtration rate (GFR) at the time of transplantation were classified as group 2. Data on weight and height were recorded; weight and height standard deviation scores (SDS) were calculated. Short stature and low weight was defined as below -2 SDS for height and weight according to their age, respectively.

Findings: A total of 17 patients, 10 boys and 7 girls, were included in the study. 13 of 17 patients had NPHS1 gene mutations. All patients had normal graft function at the time of study. Group 1 and group 2 consisted of 8 and 9 patients, respectively. The median period between diagnosis and transplantation, and median follow-up period after transplantation was similar between the groups (3.65 vs 1.98 years, $p=0.236$ and 1.08 vs 3.25 years, $p=0.09$). Mean height SDS of group 2 was higher than group 1 at both pre-transplant and post-transplant period (-2.31 ± 1.04 vs -4.57 ± 1.60 , $p=0.011$ and -1.16 ± 0.87 vs -3.16 ± 1.11 , $p=0.002$). When short stature rate was similar during the pre-transplant period, in the post-transplant period this ratio decreased in the meanwhile in group 2 (87.5% vs 33.3%, $p=0.31$ and 87.5% vs 11.1%, $p=0.001$). Patients with low weight rate was higher in group 1 than group 2 both at pre-transplant (100.0% vs 44.4%, $p=0.012$), and at post-transplant period (50.0% vs 0%, $p=0.015$).

Conclusion(s): Early renal transplantation seems to be effective for optimal height and weight gain in children with congenital nephrotic syndrome.

OP-109 ACUTE ANTIBODY-MEDIATED REJECTION AND TREATMENT IN RENAL TRANSPLANTATION: PROTOCOL BIOPSY STUDY

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Purpose: Despite new treatment options, Acute antibody-mediated rejection (AMR) shortens the graft life after kidney transplantation. The aim of this study is to evaluate the effectiveness of treatment this to pathologically incases of AMR.

Material and method: 362 cases, who underwent kidney transplantation in our center between January 2010-2018, were examined. Twenty-eight (7.7%) patients with the diagnosis of AMR in the first 3 months after transplantation and had had protocol biopsy (bx) or biopsy with a cause after treatment, were included in the study. AMR treatment protocol consisted: pulse steroids (1.5-3.0 grams/total), 2gr / kg IVIG and 5-7 sessions of df plasmapheresis. ATG (4-6mg / kg) treatment was added to cases with T cell infiltration in bx.

Findings: The mean age was 39.6 ± 11.1 years, 61% was female and 21% had the second transplant. Donor type was cadaveric in 15 and given the eight being unrelated it was living in thirteen. The mean number of mismatch was 4.1 ± 0.9 (3-6). Of the recipients, 50% had class 1 and 46% had class 2 PRA positivity. Serum creatinin elevels baseline and at rejection in live and cadaveric transplants were 1.7 ± 0.8 mg / dL and 3.9 ± 2.4 mg / dL and 3.0 ± 0.9 and 4.1 ± 2.2 mg / dL, respectively. Serum creatinine levels after treatment in live and cadaveric transplants were; 2.1 ± 2.0 mg / dL and 3.9 ± 2.2 mg / dL respectively and 80% of the cases have responded to treatment. Of the patients with persistant AMR findings in bx.; five were treated with mini-pulse steroid treatment, three received rituximab (RTX) and one patient had bortezomib treatment. 80% of these patients responded to treatment. Mean follow-up was 35 ± 20 months. During the follow-up, Polioma-BK and CMV viremia were detected in 5 and in 2 cases. Eight (28.5%) patients had poor clinical course at the last follow-up; two of them returned to hemodialysis and one patient deceased. Of the 25 patients with functional grafts at the last control; the mean serum creatinine levels were 1.6 ± 0.6 mg / dL and 2.1 ± 1.0 mg / dL for live and cadaveric transplant recipients, respectively.

Pathology In diagnostic biopsies ; there were 71% mixed type rejection ($i + t \geq 2$) and 43% vascular rejection. C4d was positive in 68% of the biopsies. The mean glomerulitis (g) + peritubular capillaritis (PTC) score was 2.5 ± 1.2 , and the inflammation (i) + tubulitis (t) was 2.7 ± 1.2 . The mean values of IFTA and cv + ah were 0.3 ± 0.7 and 0.7 ± 0.8 , respectively. In the 28 bxs. applied after treatment; both C4d positivity and the severity of mixt type and vaskular rejection had decreased. While the g + ptc and i + t infiltration averages were decreased, an increase was observed in the mean of IFTA and cv + ah (0.8 ± 0.9 and 1.0 ± 0.9). Although not observed during the rejection, transplant glomerulopathy (txg) was detected in 43% of the protocol bxs. Ten patients required the third bx. The bxs. revealed C4d positivity and tx glomerulopathy in two and eight cases, respectively and the mean values of IFTA and cv + ah were 1.20 ± 0.97 and 0.80 ± 0.74 .

Conclusion(s): With effective AMR therapy, renal function parameters are significantly improved. Histologically, improvement in inflammation may be responsible for this process. However, progressive chronic changes in allografts are noteworthy. Due to intense immunosuppressive therapy, the prevalence of CMV and polyoma BK in follow-up is increasing.

OP-110 MANAGEMENT OF POST TRANSPLANT URETERAL COMPLICATION; AN EDUCATIVE EXPERIENCE ON THREE CASES

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Purpose: Urinary fistula and ureteral stenosis occur in %2-7.5 after kidney transplantation. Main cause of leakage is necrosis due to vascular disorders or external pressure from lymphocele

Material and method: The aim of this article is to inform about the methods of solution of ureteral complications seen in our 3 cases.

Findings: Case 1: 45-year-old female cadaveric donor patient applied to our clinic due to abdominal pain and fever at postoperative 20th day. 6x8 cm lymphocele was seen in the computed tomography, and it was percutaneously drained with early intervention. Although lymphocele was drained, more than 300cc liquid continued to flow via retroperitoneal drainage per day. Fluids urea/creatinine level was checked. Urine leakage was detected. Voiding cystoscopy and cystourethroscopy showed the leakage and the lower ureter necrosis. An open revision was done. In operation, the ureter was observed to be necrosis until the upper ureter; therefore pyeloureterostomy was performed to the patients transplanted kidney, and Double J (DJ) stent was inserted. The patient was discharged at the postoperative 5th day with 1.1 creatinine level. One month later, the creatine level was 0.9

Case 2: 19-year-old female patient applied with flank pain. According to her history; she had undergone cadaveric donor transplantation five years ago. Since that time she has had recurrent urinary infection episodes. Grade 4 hydronephrosis was seen in the ultrasound. Afterwards, voiding cystourethrography was performed, and grade 4 vesicoureteral reflux was detected. Modified Lich Gregoire ureteroneocystostomy was performed. One month later the DJ catheter was removed. At the Postoperative 3rd month, there was no reflux in her control voiding cystourethrography. Moreover, the patients creatinine level was measured at 1.02

Case 3: A 52-year-old male live kidney donor patients creatine level increased slowly from 1 to 1.7. According to urinary ultrasound, minimal retroperitoneal leakage has occurred. Then voiding cystourethrography was performed. The urothelial leakage was seen. Therefore, flexible ureteroscopy was performed. It demonstrated central ureteral necrosis. Then a nephrostomy catheter was applied; afterwards, his creatinine levels start to decrease. On the 7th day after the nephrostomy, open exploration was done. Upper and lower ureter were seen intact, but the middle ureter was necrosed. Ureteroureterostomy was performed to the patient's transplanted kidney. The DJ stent was inserted. He was discharged with 0.9 creatinine level, and postoperative 1st-month creatinine was found to be 0.7

Conclusion(s): Post transplant ureteral complications are not so common but if untreated that may cause important consequences. The surgical management remains individual.

OP-111 ONE-YEAR RENAL GRAFT SURVIVAL: SINGLE CENTER STUDY FROM SUDAN

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Purpose: Renal transplant remains the treatment of choice for those who suffer from end stage renal disease. Renal transplant from live kidney donors started at Ibn Sina hospital since 1986 with slow rate of renal transplant per year and continue till now with noticeable increased rate since 2015 till now. The aim of this study is to determine the one-year renal graft survival rate for patients who underwent live kidney transplant at Ibn Sina hospital (Khartoum – Sudan) from august 2016 – august 2017.

Material and method: The target patients' data were collected from the hospital database, follow-up clinic record and patients them self and their last serum creatinine was recorded. A total of 42 patients who underwent live kidney transplant, all of them were related, blood group compatible, all patients received triple immunosuppression (calcineurine inhibitor, mycophenolate mofetil or mycophenolic acid, and prednisolone)

Findings:.. 9 patients represent (21.4%) received induction therapy. The age of recipients was range from 18 -62 years. 30 patients (71.4%) were males, while 12 patients (28.6%) were females. One-year renal graft survival was (97.6%). Two deaths (4.7%), and four patients were treated from acute rejection (9.5%)

Conclusion(s): The renal transplant in Sudan is definitely evolving and developing with grate outcome. This study revealed that there is an explant outcome of live renal transplant however the follow-up of the living donors post donation is poor, we need meticulous follow up to those donors and more health education about the importance of donor's follow-up. And we hope in the future to stablish cadaveric donation

OP-112 ESTABLISHMENT OF AN HLA LABORATORY IN MADAGASCAR: TECHNICAL AND ECONOMIC DIFFICULTIES IN DEVELOPING COUNTRY

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Purpose: Chronical renal failure is a worldwide public health issue. In Madagascar, this condition of heavy care is a medical challenge in a low-income country. In 2016, an estimated 8,000-10,000 people with kidney failure and only 1,26% have access to hemodialysis. About 30 patients were able to access live organ transplantation abroad. Our objectives are to setup an HLA histocompatibility laboratory providing HLA typing, search for anti-HLA Antibodies, and crossmatch. Evaluate the available structures of the immunology laboratory. Look for partner laboratories for more specialized research.

Material and method: The Immunology laboratory at Joseph Ravoahangy Andrianavalona University Hospital is equipped with a conventional PCR and real-time PCR platform, an ELISA immunoassay platform, and a fluorescence inverted microscopy

Findings: The techniques to be implemented in Madagascar for the HLA Laboratory are the HLA typing of the donor and the recipient by the PCR SSP and microlymphocytotoxicity technique (LCT). The search for anti-HLA antibodies will be done by ELISA and LCT. The crossmatch in LCT. We have created cooperation with Réunion Island France histocompatibility Laboratory for the identification of recipient and donor anti-HLA Antibodies and crossmatch by luminex.

Conclusion(s): The presence of HLA platform in Madagascar will allow preparing the establishment of a future kidney transplant in the country but also for improved management of patients waiting on abroad transplant list in regards of donor selection and post-transplant monitoring.

OP-113 ALGERIAN EXPERIENCE IN KIDNEY TRANSPLANTATION FROM SPOUSES.

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Purpose: Kidney transplantation remains the best treatment for ESRD. The first kidney samples were taken from living donors, the majority of which were genetically related. In recent years, there has been a diversification of the sources of grafts, in particular from the spouse. The aim of our work is to evaluate the survival of grafts and patients and to identify the prognostic factors of graft function.

Material and method: This is a retrospective study carried out from January 2012 to December 2017. The number of patients receiving their first transplantation from the spouse was 71. The immunosuppressive treatment was based on induction by ATG or Anti-IL2 and CTC, MMF and CNI for maintenance treatment. We analyzed demographic characteristics, episodes of acute rejection, complications and survival of grafts and patients.

Findings: There were 56 men (78, 9 %) and 15 women (21, 1 3%) with a sex ratio of 3, 7. The mean age of recipients was (44 ± 9.482 years) and the mean age of donors was (41 ± 9.3 years). 90 % of patients were dialyzed before the transplantation with a mean duration of 5, 23 years, only 10 % benefited from a pre-emptive transplantation. Initial nephropathy was indeterminate in 74, 6 % of cases. 73, 2 % of patients had between 5 and 6 HLA mismatches with the donor. 32, 4% of the couples were genetically related. 5 patients had DGF with dialysis, three of them developed acute rejection. 21, 1 % of patients had surgical complications. Infectious complications represented 52, 1 %. The mean graft function at 1 year 3 and 5 years was $12, 18 \pm 3, 1$ mg/l; $12, 61 \pm 2, 8$ mg / l and $17, 1 \pm 14, 5$ mg/l respectively.

Conclusion(s): Given the growing need for organs, kidney transplantation from spouses can be a viable option in our population, what allow to expend the circle of living donors, especially in the absence of a program of deceased donor kidney transplantation.

OP-115 TWO CASES OF LYMPHADENOPATHY FOLLOWING KIDNEY TRANSPLANTATION PRESENTING AT TWO DIFFERENT CENTERS IN EGYPT AT THE SAME TIME

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Faculty Of Medicine Cairo University

Purpose: We present 2 rare cases of Post Kidney transplant complications presenting at the same time to 2 different centres in Egypt at the same time . The epidemiology , incidence , clinical picture , diagnostic workup , treatment , outcome and complications of therapy will all be presented ..

Material and method: Case One : Male , 28 y , ESRD of unknown cause , first kidney transplant was on April 2010, donor was his sister . He received triple immunosuppressive therapy (Cyclosporin , Azathioprine and Steroids) . One month later he had Acute Cellular Rejection Banff IA which was steroid responsive and his creatinine dropped from 1.7 mg/dl to 1.3 mg/dl after solumedrol shots, his last follow up was in March 2013 . In 2016 his s. creatinine 7.3mg/dl, CMV PCR was negative , graft was ESRD, he was prepared for his second transplantation which was preemptive from his second sister on August 2017 and was maintained on Cyclosporin , MMF, steroids . In June 2018 He presented with fever , cervical swelling dysphagia , hoarseness of voice and weight loss, his creatine progressed from 2.2 mg/dl to 9mg/dl and he was admitted to our hospital , routine labs , chest x-ray C.T. chest ,bronchoscopy , U.S. abdomen , Lymph node biopsy were all done , the patient received treatment and his s.creatinine dropped to normal and started treatment of his general condition . Case II Female Sudanese patient 45 y old , ESRD of unknown etiology , underwent preemptive kidney transplantation in Egypt in July 2013 from her sister , she received conventional immunosuppression Cyclosporin , MMF and steroids without antibody induction, s. creatinine was 1.0 mg/dl . 10 days after her hospital discharge she developed Acute AMR , she received Plasma Exchange and I.V.Ig and CMV prophylaxis for 6 months , Cyclosporin was converted to Tacrolimus, creatinine dropped from 1.7 to 1.2 mg/dl. In August 2016 she had diarrhea and weight loss and CMV PCR was positive , another course of Valgancyclovir was repeated s.creatinine was 1.7 mg/dl kidney biopsy revealed : Chronic AMR , C4d was negative DSA were negative too . In May 2018 : She presented with fever , anorexia, weight loss , vomiting , on examination she had palpable cervical , axillary lymph nodes ,creatinine was 1.8mg/dl CMV PCR was negative . U.S. chest X- ray , PET CT Scan , Lymph node biopsy were done and the diagnosis was made, the patient received treatment for her condition ..

Findings: Routine labs, Chest x-ray , Ultrasound abdomen , CT chest , Bronchoscopy ,BAL , Lymph node biopsy were done

Conclusion(s): The diagnosis of both cases is the same . Tuberculosis post kidney transplantation , the diagnostic work up and the received treatment, outcome , complications of therapy will all be presented

OP-116 METABOLIC PROFILE OF RENAL TRANSPLANT PATIENTS ONE YEAR AFTER TRANSPLANTATION

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Purpose: Metabolic complications after renal transplantation (RT) are common and deserve special attention because they represent major factors of cardiovascular morbidity and mortality. The aim of our study was to evaluate these complications after RT, their frequency, cofactors affecting their occurrence, their management, their evolution and short term impact on the renal graft.

Material and method: This is a retrospective study of kidney transplantations between 1981 and 2013 performed in our department. We identified the demographics of the donor and recipient, immunosuppressive therapy and clinical, biological as well as anthropometric parameters prior to RT, and at 6 and 12 post RT.

Findings: We collected data on 105 kidney transplant patients with a mean age of 32.9 +/- 11.7 years, a sex ratio of 1.5. The initial nephropathy was of undetermined origin in 52.9% of cases, glomerular in 25%, tubulo-interstitial in 15.4% and vascular in 2.9% of cases. The prevalence of NODAT (New Onset Diabetes After Transplantation) was 14.3% with a median time to onset of 5.8 months. A year after RT, 51 patients had dyslipidemia, an incidence of 52%. Statins were used only in 12.7% of patients. The incidence of obesity was 5% and that of overweight patients was 36% one year after RT. Hyperuricemia was present in 44% of transplant patients, hypertension in 70.5%. Corticosteroids were prescribed in 94.4% of cases. Graft loss was observed in 12 patients. Three patients died, one with a functioning graft. In univariate analysis, pre-existing hypertension prior to transplantation was found to be a risk factor for graft loss as well as return to dialysis ($p < 0.04$).

Conclusion(s): Metabolic complications post RT are common and represent a major factor of morbidity and mortality. Early patient information is crucial in their prevention and is based on a multidisciplinary approach.

OP-117 RHINO-ORBITAL MUCORMYCOSIS DEVELOPING AFTER KIDNEY TRANSPLANTATION: A CASE REPORT

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Purpose: Aim: To draw attention to mucormycosis infection developing after kidney transplantation, which may lead to death. Introduction: Mucormycosis is a fatal, opportunistic fungal infection frequently seen in immunosuppressed patients due to irregular diabetes, neutropenia, malignancy and organ transplantation. It can be categorized as pulmonary, rhino-orbitocerebral, cutaneous and disseminated. Mycosis is angio-invasive, thus the infection can end up with necrosis of the related tissues. In recent years, improvement of antifungal medications has been promoted for the treatment of patients. Hyperbaric oxygen therapy (HBOT) has been used for these cases for a long time, which increases oxygen concentration in tissues, as well as leucocyte activity and tissue recovery.

Material and method: Case: A 35-year-old female patient underwent renal transplantation on 20th July 2017 due to renal failure. The patient, whose renal functions became normal, was discharged from the hospital on the 12th postoperative day. The patient presented to the hospital after 10 days with complaints of toothache and swelling of the gingiva. Upon physical examination, tenderness in the left nasal sinuses and ptosis in the left eye was detected, nevertheless visual acuity was 10/10. The patient, who received immunosuppressive treatment after transplantation, was given cranial and orbital magnetic resonance imaging (MRI). MRI revealed left ethmoidal sinusitis and left orbital inflammation. The patient was started on antibiotherapy. Sinus endoscopy applied due to progression of the current status and vision loss at the end of two days revealed hyphae. It was detected as rhizopus type in microscopic examination and the patient was diagnosed as having mucormycosis. Debridement of the affected area in the ethmoid sinus was conducted. Antifungal therapy was started. Immunosuppression treatment was halted. Additionally, HBOT was started. Two more endoscopic debridements were subsequently conducted. The patient, whose general health status deteriorated, died 25 days after receiving the diagnosis of mucormycosis.

Findings: Discussion: Although mucormycosis factor spores are easily removed from healthy individuals via phagocytosis, they may be fatal in immunosuppressed hosts. Development of antifungals and orbital exenteration are especially being promoted. Orbital exenteration is a hard to accept process for patients. Moreover, it is assumed to be unnecessary in some reviews. Improvements in surgical and pharmacologic treatment have made the disease easier to fight against. In particular, liposomal amphotericin B and hyperbaric oxygen therapy are important. Although the nephrotoxicity of amphotericin B is well known, we ignore this side effect as we give dialysis treatment to our patients. Mucor develops in an acidic environment, occluding arteries and increasing hypoxia. HBOT can be effective in breaking this loop and at the same time it contributes to increasing leucocyte activity. As a mechanism, it causes an increase in cellular defense mechanisms by re-arranging the oxidative burst and phagocytosis that have deteriorated in hypoxic environments. Studies have shown that increasing tissue oxygen through HBOT increases the effectiveness of polymorphonuclear leukocytes and macrophages.

Conclusion(s): Despite aggressive surgical debridement, new medications and adjuvant HBOT, rhino-orbital mucormycosis is a fatal infection for patients receiving immunosuppressive treatment after renal transplantation. Early diagnosis and treatment can be lifesaving for these patients.

OP-118 ÇANAKKALE ONSEKİZ MART UNIVERSITY KIDNEY TRANSPLANT CENTER RESULTS OF RENAL ARTERY DUPLICATION ANOMALY

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Purpose: The aim of this study is to retrospectively evaluate duplication anomalies of renal artery in cadaveric kidney transplants performed in our Organ Transplant Center opened in 2015 in the Bursa region.

Material and method: Of the patients with renal artery duplication anomalies, 4 were female (7.5%), 8 were male (15%), the mean age was 55 (25-74) and the mean follow-up period was 24 months (6-42). Transplant of 11 of the patients was from the cadaver, 1 was from live donor. Artery duplication was present in all of the patients. The arteries were reconstructed with ex vivo pantaloons (side-to-side) anastomosis into a single large artery and an end-to-side anastomosis to external iliac artery was performed. Lower polar artery was tied in a patient with a very small lower polar artery.

Findings: Acute tubular necrosis developed in 3 patients postoperatively. 4 patients had lymphocele that does not require intervention and 1 patient had perirenal hematoma. Kidneys became functional in patients with ATN after an average of 3 weeks. Hematoma spontaneously resolved in the patient with perirenal hematoma.

Conclusion(s): The use of kidneys with renal artery duplication in transplantation involves some risks theoretically. Acute tubular necrosis, delayed graft function and rejection may be more frequent due to the prolonged cold and hot ischemic period. We think that a large single renal artery anastomosis may reduce the risk of vascular complications by ex vivo pantaloons (side-to-side) anastomosis in renal artery duplication.

OP-119 A RETROSPECTIVE REVIEW OF OUR KIDNEY TRANSPLANTS: ONE CENTER EXPERIENCE

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Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi

Purpose: We present the surgical problems and solutions that we encountered in children with end stage kidney failure diagnosed in our clinic.

Material and method: Clinical findings and complications of our childhood renal disease patients diagnosed with end-stage renal disease between 2015-2018 were evaluated retrospectively through the files of the resolution of the complications.

Findings: 45 patients who underwent kidney transplantation with renal failure diagnosis, 9 (5 girls, 4 boys) were children. The average age is 12.9 (9-16 years). Donors of 2 patients who underwent kidney transplantation were cadavers. Except for one patient, the kidneys were taken to the right. In one patient, nephrectomy was performed on the native kidney due to frequent episodes of pyelonephritis. 1 Postoperative hemothorax and pneumothorax were present in our patient. A patient died 5 months after the onset of an unknown cause. Severe labial edema developed due to bladder sonde in one patient. Two patients with donor cadavers were exposed to aortic patches with multiple vessel anomalies. The average follow-up period is 7 months.

Conclusion(s): The reason that kidney failure is caused by various causes in children is very important in our country. The pediatric kidney transplantation centers are less able to reduce the chances of transplanting children. Serious complications can also be seen in children after transplantation. we think that team work is very important in managing these complications. We also think that pediatric renal transplantation centers should be increased in our country.

OP-120 ENDOCRINE PROBLEMS IN RENAL TRANSPLANTATION MALE FEMALE - EFFECTS ON SEXUAL FUNCTION AND LIFE QUALITY

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Purpose: Chronic renal disease (CRD); is a pathophysiological period which goes with reduction in nephron numbers and functional failure of nephrons, resulting usually in end stage renal failure (ESRF). End-stage renal failure (ESRF) is defined as irreversible loss of endogenous renal function and reduction of glomerular filtration rate (GFR) below 15 ml / min. Chronic renal failure (CRF) in Turkey as well as all over the world also remains important as a serious health problem. Today, the outcomes of researches in health-related quality of life are used to shape medical treatments. Quality of life assessments help plan treatment strategies to determine the effectiveness of medical interventions and assessment of quality of medical care. Assessing health-related quality of life can also help identify ways to improve the quality of life of patients with end stage renal disease (ESRD) and identify strategies to prevent adverse consequences. One of the important items of the quality of life that are often overlooked is sexuality. It has been reported that male and female patients with end-stage renal failure have high rates of sexual dysfunction. In some studies it is estimated that the incidence of erectile dysfunction is more than 50% in male patients with renal insufficiency.

Material and method: We retrospectively evaluated the demographic features, endocrine problems, quality of life and sexual functions of 40 male patients who underwent live or cadaveric renal transplantation between February 2007 and February 2009 at Ege University Medical Faculty Hospital General Surgery Department. The short form-36 (SF-36) was used to assess the quality of life. Sub-dimensions of SF-36 are Physical Function (PF), Physical Role (RP), Body Pain (BP), General Health (GH), Vitality (VT), Social Function (SF), Emotional Role (MH). In the evaluation of sexual functions, the Turkish version of the IIEF form was used.

Findings: We have seen that donor source and primary kidney disease have no effect on overall life and sexual life quality. However, to reach more reliable results, studies involving larger patient numbers are needed.

Conclusion(s): As a result, we could not find any significant statistical relationship between donor age and sex hormones. We found that the sexual performance of patients after kidney transplantation was subjectively increased, but that the patients did not find it satisfactory.

OP-121 THE EFFECT OF BODY MASS INDEX ON RENAL TRANSPLANTATION OUTCOMES

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Purpose: Renal transplantation is the eligible treatment of end stage renal disease. There are many factors that effect renal transplant outcomes. Obesity is shown to have immunologic role beside its effects on many systems. Recently, there are many studies on the effect of the immune role of adipose tissue on transplantation. In this study, we planned to compare renal transplantation outcomes (graft function, graft survival, acute rejection episodes and postoperative complications) of patients with BMI< 25 to patients with BMI>25.

Material and method: In our study, a retrospective analysis was undertaken of 323 consecutive patients who received a renal transplant at Baskent University Ankara Hospital General Surgery Clinic from March 2005 to September 2014. Kaplan-Meier method was used to determine the survival rate, log rank was used to test to compare survival curves, and the independent association of BMI with survival was determined using Cox multivariate regression.

Findings: Our results showed that frequency of acute rejection episodes were higher in patients with BMI>25. Overweight and obese patient had more severe postoperative complications than patient with BMI<25. there was a higher incidence of delayed graft function in overweight and obese patients. Graft survival was significantly lower in patient with BMI>25 patients compared to patients with BMI<25 upon Kaplan–Meier analysis.

Conclusion(s): There are many factors that impact renal transplant outcomes. Some of those factors are recipient related and others are donor related. It's also known that technical and clinical differences have an effect on this proses. In our study, we showed that body mass index is a independent risk factor on renal transplant outcomes but further studies are needed to confirm these findings on the role of adipose tissue on transplantation immunology.

OP-122 ONE YEAR CLINICAL EXPERIENCE OF A NEW KIDNEY TRANSPLANTATION CLINIC: NEPHROLOGICAL OVERVIEW

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Purpose: Kidney transplantation is most preferred treatment option for end stage chronic kidney disease. Here we present preliminary results from a new established kidney transplantation clinic. We aimed to shed light on the possible problems of the new centers by sharing early results in our lives.

Material and method: A total of 21 kidney transplants were performed between july, 2017 and 2018 in our hospital. Herein, performed transplants were evaluated nephrologically.

Findings: All transplantations were performed using deceased donors. Among twenty-one patients, 71,4% were female and 28,6% were. Mean age of patients was 43,1 years. Two patients had history of transplantation before and another two patients had historical donor specific antibody(DSA). Mean hospital stay duration was 26 days. Average serum creatinine level was 1.63 mg/dL at the discharge day. After ATG Fresenius induction, all patients were administrated tacrolimus, mycomofetil fenolat and prednisone. In the first case, rhino-orbital mucormycosis was detected on the 20th postoperative day and the patient was died despite treatment. In the one case, the donor had 3 renal arteries and nephrectomy was performed with necrosis caused by occlusion in the renal arteries following the operation. Acute rejection was detected in 4 cases. In addition to pulse steroid therapy, plasmapheresis and IVIG combination therapy-7 times were applied three of the patients. Significant improvement was observed in renal function in treated patients. Except for acute rejection, plasmapheresis and IVIG treatments were performed in two patients with history of renal transplantation or with historical DSA. Delayed graft function was observed in 4 patients.

Conclusion(s): In renal transplantation, multidisciplinary approach for surgical, immunologic, infectious complications, timely appropriate intervention is required.

OP-123 NEW-ONSET DIABETES AFTER KIDNEY TRANSPLANTATION: OUR CENTER EXPERIENCE

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Abstract: The new-onset diabetes is a serious complication after kidney transplantation. Several risk factors are incriminated: factors related to the recipient, the donor, and the immunosuppressive therapy. The purpose of our work is to evaluate the prevalence of new-onset diabetes in our center, and to determine its risk factors.

Material And Methods: Retrospective and analytical study of all the patients who had a kidney transplantation in our center from January 1st, 2007 to December 31st, 2017. We analyzed the characteristics related to the recipient (age, sex, family history of diabetes), to the donor (HLA matching, living donor or brain dead donor), the treatment and the evolution after kidney transplantation. The statistical analysis was performed using the Epi Info software.

Findings: From January 1st 2007 to December 31st 2017, 155 kidney transplantations were performed in our center, including 124 from living donors. During follow-up, 13 patients (8.3%) developed diabetes after the transplantation, with a male predominance (61%). The mean age at the time of transplantation was 45 years (+/- 6,5 years), and the mean BMI was 27 years (+/-3). The mean time to onset of diabetes was 21.3 months (+/-7,8 months). At diagnosis, all patients had Mycophenolate mofetil and steroids, 10 patients had Tacrolimus, and 3 patients had Ciclosporin as immunosuppressive therapy. 3 patients had developed a CMV infection after the transplantation, and one patient had an acute rejection episode. Concerning the treatment, oral antidiabetic drugs have been introduced for 8 patients, and insulin for 5 patients, allowing a good glycemic control. In univariate analysis, the occurrence of diabetes was significantly more frequent in case of brain dead donors (p: 0,04), of HLA-mismatching (p: 0,05), of age more than 40 years at the time of the transplantation (p: 0.03), family history of diabetes (p: 0.05), and in case of CMV infection after the transplantation (p: 0.0005).

Conclusion: The new-onset diabetes after kidney transplantation increases the risk of graft loss, as well as the cardiovascular risk. The results of our study reveal a significant frequency of diabetes after kidney transplantation, as well as the involvement of some factors in its occurrence. Most of these factors are modifiable, and early management before and after transplantation is essential to limit the incidence.

OP-124 DIAGNOSIS OF DE NOVO FMF AFTER KIDNEY TRANSPLANTATION AS FEVER OF UNKNOWN ORIGIN

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Purpose: Fever of unknown origin (FUO) in kidney transplant patients is sometimes managed hardly in the early period after transplantation. Because of high dose induction and maintenance immunosuppressive therapy, infections are always on top of the differential diagnosis list; but surgical complications and of course rejection should be considered. Familial Mediterranean fever (FMF) is a clinically well known and the most frequent monogenic auto-inflammatory disease affecting mostly people who have Mediterranean descent.

Material and method: Herein we aimed to present two patients with unknown etiology of end-stage renal disease (ESRD) presenting as FUO after kidney transplantation who were diagnosed with FMF.

Findings: Case 1. A 40-year-old male patient with end-stage renal disease (ESD) on hemodialysis for 3 months admitted to our clinic for living-donor kidney transplantation. After the recipient and donor workup was completed, the patient underwent a successful operation. On the seventh day of operation, he had a fever, abdominal discomfort, high C-Reactive protein (CRP) and fibrinogen levels without any finding in physical examination. There was no decrease in urine output, no increase in serum creatinine level, infectious workup was normal and no pathology in ultrasound. After the serum amyloid A (SAA) level detected high, we started colchicine with a possible diagnosis of FMF. The patient had no other similar complaints again and the acute phase reactants (APRs) normalized on the tenth day of the treatment. Genetic analysis results have not been released. Laboratory findings were shown in Figure 1. Case 2. A 42-year-old male patient with the diagnosis of IgA nephropathy induced ESRD on hemodialysis for one year had living-donor kidney transplantation in our clinic. After the first year of transplantation, he admitted with fever, arthralgia, and mild abdominal pain. Imaging methods and laboratory findings were normal except increased APRs. No evidence of infection was detected and graft functions were normal. Colchicine was started without waiting for genetic results which were heterozygous for R761H c.2282 G>A mutation. SAA and CRP levels were decreased gradually and he has been never symptomatic again. Laboratory findings were shown in Figure 2.

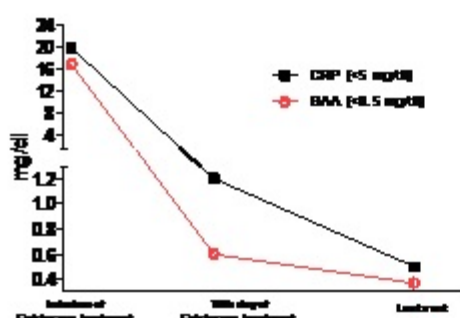


Figure 1. Laboratory Findings of Case 1

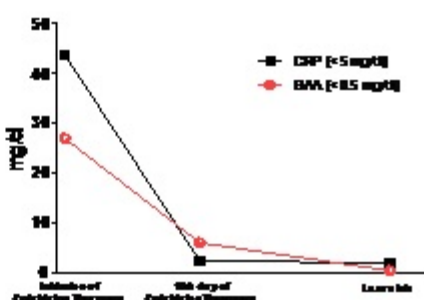


Figure 2. Laboratory Findings of Case 2

Conclusion(s): FMF is primarily a clinical diagnosis and colchicine is effective for most the patients including kidney recipients. Transplantation team should be aware of FMF in patients with Mediterranean decent although recipients' pretransplant medical history was not consistent with FMF.

OP-125 CARDIAC PATHOLOGY RESEMBLES A REJECTION AFTER 3 YEARS OF A RENAL TRANSPLANTATION: ATRIAL FIBRILLATION

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Purpose: Atrial fibrillation in renal transplant patients is a cardiac pathology that should be treated. Three years ago, the patient underwent cadaveric transplantation. The patient was discharged normally. During the 3-year follow-up period no rejection was observed. However, the patient was hospitalized because of the 4 mg / dL creatinine value in the third follow-up year

Material and method: Pulse steroid therapy was initiated with pre-diagnosis of rejection. Beta blocker therapy, due to the high value of creatinine, started low dose because the patient had ECG in atrial fibrillation. On the second day of the treatment, the patient requested dopler usg. it was stated that the residual index (RI) value was slightly increased when the posterior artery and vein were open. In the meantime, due to the lack of urine output and the increased potassium value of the patient, nephrology has planned dialysis treatment. But the patient did not accept the dialysis treatment. The patient was scheduled for a biopsy on the third day of the pulse steroid, assuming no response to treatment. Cardiac enzymes, ECG and cardiology consultation were requested on the patient with severe respiratory distress and retrosternal pain due to increase in volume load and exacerbation of atrial fibrillation. It is recommended that chronic atrial fibrillation needed full-dose Beta blockers in the acute phase if there was not an obstacle

Findings: Treatment of cardiology has begun. Effective therapy resulted in patient fibrillation to normal rhythm. On the next day, the patients creatinine level reached 1.4 and the urine output increased to normal level. The patient was discharged after 1 week.

Conclusion(s): It should be remembered that patients with atrial fibrillation may have increased creatinine levels due to hypoperfusion. Early and effective treatment is important

OP-126 IN TURKEY HEIGHT OF CREATINE IS A MARGINALITY CRITERIA OR INSUFFICIENCY?

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Purpose: High creatinine level is one of the marginal donor criteria of a cadaveric donor kidney transplantation. In our transplantation clinic we have used marginal donor as described in the guidelines but a little difference about the admission of the donor to intensive care: creatinine level is normal but donor is high creatine value during presentation to procurement. The aim of this study was to determine in which cases the height of creatinine should be regarded as marginal donor.

Material and method: We retrospectively evaluated the records of 222 patients who were made in our clinic between 2008 and 2018, the input creatinine value of cadaveric donors and the creatinine value during harvesting were noted. All patients who underwent renal transplantation were evaluated for the first week and first month after transplantation.

Findings: >Of 222 patients, 102 were cadaveric donors and 22 of them had marginal creatinine value. There was no significant difference of graft function between marginal donor and normal donor. Marginal donor's creatinine level is normal during the acceptance of intensive care unit. There was a significant difference between the creatine level but finally the renal function is same.

Conclusion(s): The height of creatinine level, which is by the marginality criteria arise due to delays in achieving or inadequate maintenance intensive care conditions in Turkey.

OP-127 CULTURE RESULTS AND ANTİBİOTİC SUSCEPTİBİLİTY TESTS IN KIDNEY PROTECTION SOLUTIONS

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Purpose: We aimed to determine culture results and antibiotic susceptibility tests in kidney protection solutions during harvesting

Material and method: Culture results of protection solution specimens received during October 2009 -June 20018 were analysed retrospectively. Standart methods were used for identification of bacteria. Gram negative bacteria with pure growth were included. Antibiotic susceptibility was studied with disc diffusion method.

Findings: There was only one protection solution specimen was cultured and isolated agent was Staphylococcus. When all the results were examined, none of the patients who had an infection agent and had an infection clinic. However, cephalosporin treatment is routinely performed in our clinic for 7 days in all transplantation cases.

Conclusion(s): Culture results and antibiotic susceptibility tests must have done routinely in order to prevent grave complications like irreversible renal damage

OP-128 KIDNEY TRANSPLANTATION EXPERIENCE IN SYRIAN REFUGEES

Mustafa Sevinc

Sisli Hamidiye Etfal Training And Research Hospital

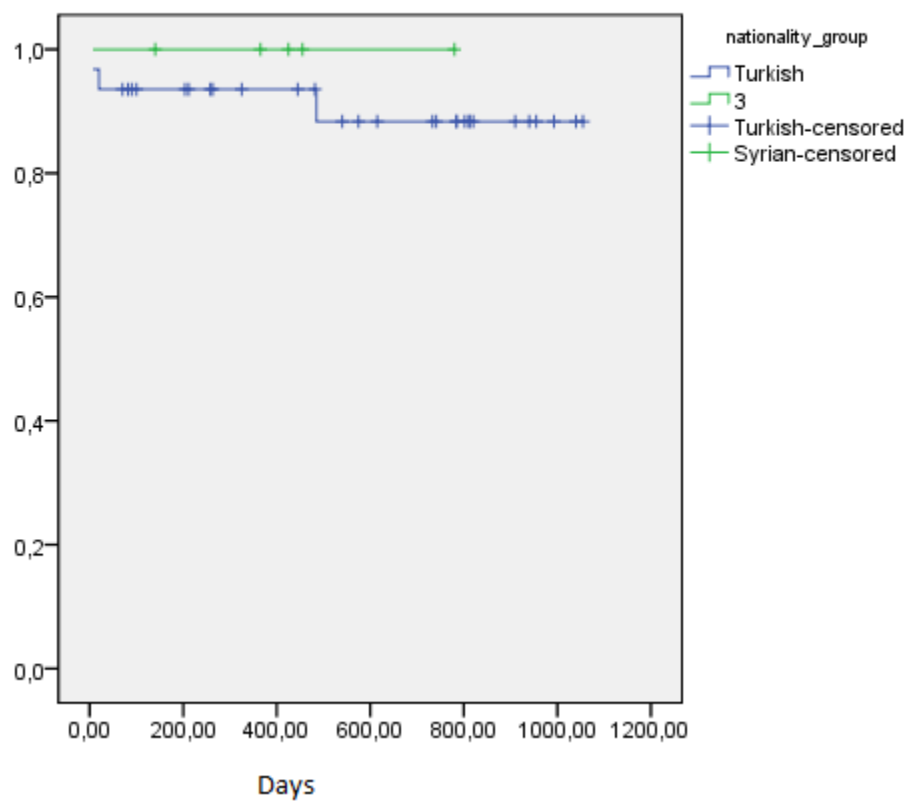
Purpose: Several millions of people moved from Syria in recent years because of civil war. Turkey has approximately 3 millions of Syrian refugees whom have free healthcare facilities including dialysis and renal transplantation. Our institution has performed first kidney transplantation on 2015. We are the first institution performing kidney transplantation to refugees. The aim of this study is to share our experience on transplantation to refugees.

Material and method: All living related kidney transplantations were enrolled to the study. Donor and recipient demographic characteristics, length of hospital stay, creatinine values, graft survival details were noted. Data compared between Syrian and Turkish donors and recipients.

Findings: Totally 25 living related kidney transplantations were performed in which 5 of them was refugees. Syrian recipients were younger. All had dialysis history. Forty percent of them needed interpreter. Although some of them needed an interpreter, none of them face with treatment incompatibility including possible problems due to speaking a foreign language. Length of hospital stay, postoperative creatinine values and graft survival were similar compared to Turkish recipients (Figure 1). All details are given at Table 1.

Table 1. Details of demographic characteristics and follow-up details of Syrian and Turkish transplantations.

	Syrian	Turkish	p
Number	5	20	
Donor age	44(35-46.5)	48.5(43.25-58.75)	NS
Donor sex, female	20%	45%	
Donor BMI	26.4±2.9	23.6±4.16	NS
Relation of donor with recipient			NS
Father	80%	20%	
Mother	-	25%	
Sibling	20%	20%	
Other	-	35%	
Recipient age	17(13-23.5)	34(21.25-46.5)	0.035
Recipient sex	40%	40%	
Recipient BMI	17.08±2.31	23.6±6.2	0.019
Dialysis history, positive	100%	50%	0.005
Communication, interpreter	40%	-	0.003
Length of hospital stay	15.8±9.1	17.35±11.42	NS
Creatinine, first week	1.65±1.16	1.44±0.88	NS
Creatinine, first month	1.20±0.27	1.32±0.34	NS
Treatment incompatibility, positive	-	15%	NS



Conclusion(s): Every end stage renal disease patient has the right to be transplanted whatever the nationality or status of them are. Although it has some bureaucratic difficulties, transplantation to Syrian patients is possible and the results are reasonable. We welcome to every Syrian refugee with living related donor.

OP-129 IS THERE A CORRELATION WITH PRE-DONATION KIDNEY VOLUME AND RENAL FUNCTION IN THE RENAL TRANSPLANT RECIPIENT? A VOLUMETRIC CT STUDY

Aysegul Gursoy Coruh Caglar Uzun Zehra Akkaya Basak Gulpinar Atilla Halil Elhan Acar Tuzuner

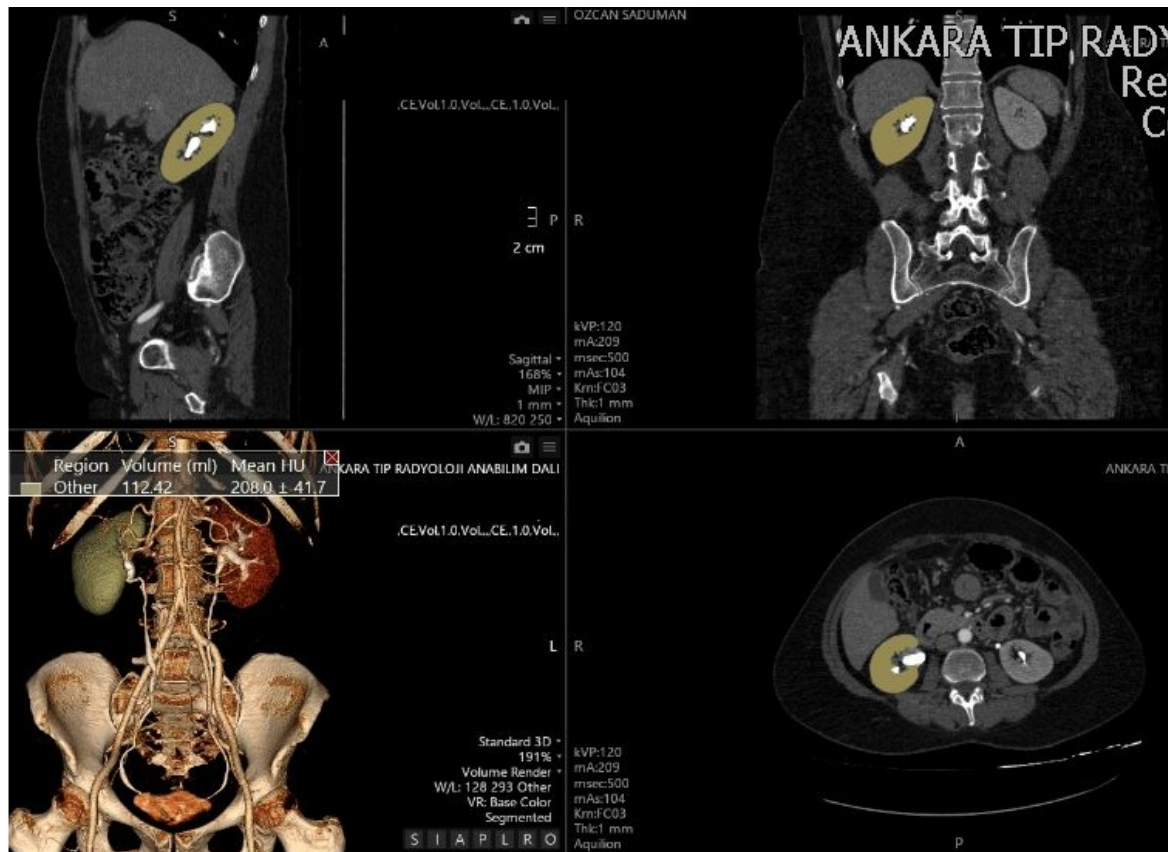
¹ Ankara University, School Of Medicine, Department Of Radiology

² Ankara University, School Of Medicine, Department Of Biostatistics

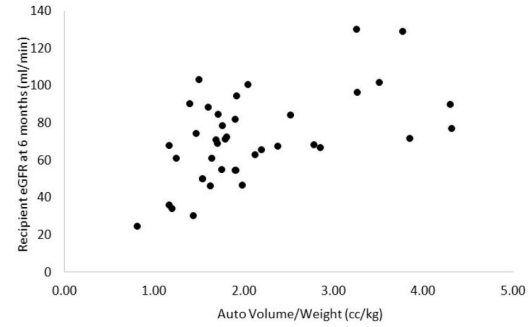
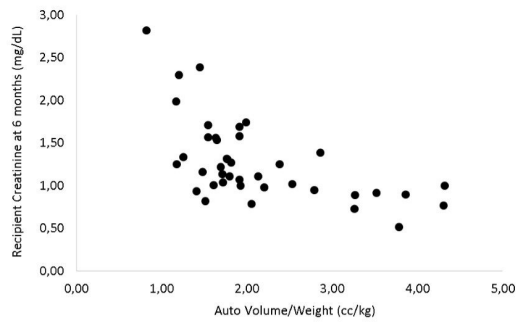
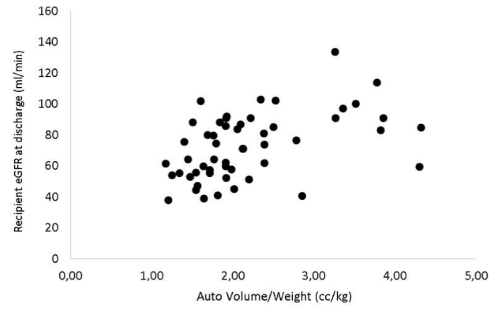
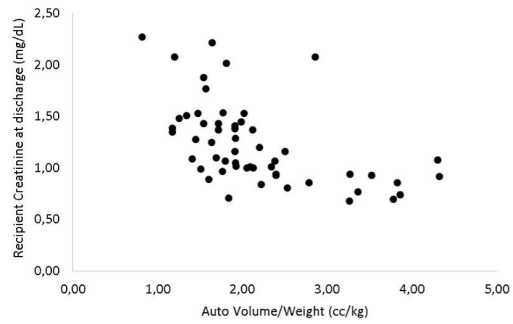
³ Ankara University, School Of Medicine, Department Of General Surgery

Purpose: The aim of this study is to determine the correlation between the predonation kidney volume and recipient renal function by measuring the estimated glomerular filtration rate (eGFR) and serum creatinine levels in renal transplant patients.

Material and method: The study group is comprised of 55 (42 male, 13 female) patients who underwent renal transplantation between January 4, 2017 and August 9, 2018. The total parenchymal renal volume were calculated (figure 1) on a 64 slice-CT (Toshiba Aquilion 64, Japan) by using two techniques (three-dimensional renal volume/ellipsoid formula and a voxel-based volume calculation/ semi-automated model). Postoperative creatinine levels for the recipients at hospital discharge and 6 months after the transplantation were obtained and eGFR were calculated by using the CKD-EPI equation. For each volume we tested the association with eGFR and creatinine by adjusting the renal volume to body weight and BMI. A threshold value for renal volume/ weight was calculated on ROC curve analysis and the odds ratio for creatinine levels higher than 1.5 mg/dl was calculated at discharge.



Findings: The renal volumes adjusted to weight were found to be moderately correlated (figure 2) with eGFR and creatinine levels at discharge ($r=0.51$ [95%CI: 29-68] and $r=-0.54$ [95%CI: -70- -32] for semi-automated model; $r=0.52$ [95%CI: 30-69] and $r=-0.52$ [95%CI: -69- -30] for ellipsoid formula, $p<0.001$, respectively) and at 6 month ($r=0.55$ [95%CI: 58-73] and $r=-0.58$ [95%CI: -76-34] for semi-automated model; $r=0.51$ [95%CI: 23-71] and $r=-0.54$ [95%CI: -73- -28] for ellipsoid formula, $p<0.001$ respectively). A threshold value of 1.84 cc/kg was calculated for parenchymal volume to recipient weight on the ROC curve analysis ($AUC\pm SE: 0.760\pm 0.078$, $p=0.008$). The likelihood of creatinine level higher than 1.5 mg/dl was found nine times greater for smaller renal volume /weight ratios ($OR=9.6$; 95% CI: 1.8-50.6)



Conclusion(s): Predonation renal volume adjusted to recipient weight may estimate the renal function at discharge and 6 month follow-up. There was an inverse relation between the total parenchymal volume to recipient weight and creatinine levels.

OP-130 GRAFT SURVIVAL OF PATIENTS HAVING RENAL TRANSPLANTATION DUE TO FMF-RENAL AMILOIDOSIS

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Purpose: AA amyloidosis is most commonly caused by FMF in our country. Amyloidosis caused secondary due to FMF is an important cause of end stage renal failure. Renal transplantation is an alternative treatment comparing with hemodialysis in these patients. The present study aimed to show the results of long-term follow-up the graft survival of patients having renal transplantation due to secondary amyloidosis caused by FMF.

Material and method: Twenty-seven patients who underwent renal transplantation between 2005 and 2017 at the University of Ankara Medical Faculty, İbni Sina Hospital were included retrospectively in the study. End-stage of renal failure all of the patients was caused by renal amyloidosis secondarily due to FMF.

Findings: Twenty-two patients (81.5%) were treated with triple immunosuppressive therapy consisting of MMF+Tac+Steroid and 5 patients (18.5%) were treated with triple immunosuppressive therapy consisting with Tac+AZA+Prednol. Acute cellular rejection in 3 patients (11.1%), acute cellular and humoral rejection in 1 patient (3.7%) was occurred. In follow-up, graft loss due to acute cellular rejection was observed in only 1 patient. In 1 patient, after 3 years of follow-up, urosepsis and cardiac arrest associated functional graft were observed.

Conclusion(s): The long-term results of renal transplantation due to FMF-associated amyloidosis cases are quite successful.

OP-131 THERAPEUTIC EFFECT OF PLASMAPHERESIS, INTRAVENOUS IMMUNOGLOBULIN AND RITUXIMAB IN KIDNEY TRANSPLANT RECIPIENTS WITH HIGH PANEL- REACTIVE ANTIBODY LEVELS: A SINGLE CENTRE EXPERIENCE

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Purpose: High Panel Reactive Antibody (PRA) levels, limits patients access to kidney transplantation, from potential living donor candidates and decreases renal graft survival by causing acute antibody mediated rejection(AAMR). In this article, we report our experiences about efficiency of plasmapheresis in reduction of serum PRA levels in renal transplantation candidates and in patients with AAMR.

Material and method: We examined retrospectively 47 patients (18 for desensitization and 29 with AAMR) between 2008-2018 in Ankara Faculty of Medicine. We evaluate the reduction in PRA class 1 and PRA class 2 levels before and after the plasmapheresis, intravenous Immunoglobulin (IVIg) rituximab therap

Findings: The mean plasmapheresis session was $4,13 \pm 2,05$. Mean reduction in PRA class 1 was $\%25,7 \pm 6,66$ to $\%19,7 \pm 6$. ($p < 0,05$). Mean reduction in PRA class 2 was $\%33,8 \pm 5,93$ to $\%29,2 \pm 4,96$. ($p > 0,05$). In desensitization group; mean reduction in PRA class 1 was $\%28 \pm 9,10$ to $\%22,1 \pm 8,14$. ($p < 0,05$). Mean reduction in PRA class 2 was $\%40,3 \pm 6,89$ to $\%32,2 \pm 5,68$ ($p < 0,05$). In AAMR group, mean follow-up period $4,89 \pm 2,85$ years and 6 ($\%20,6$) patient had graft loss with acute rejection. In the desensitization group, the mean follow- up period was $4,21 \pm 3,35$ years and 0 patient had graft loss. In the AAMR group 9 ($\%31$) patient treated with rituximab and 1 patient treated with eculizumab. In the desensitization group 3 ($\%16,6$) patient treated with rituximab.

Conclusion(s): Plasmapheresis and IVIg threathment provides significant reduction in PRA levels and can be a successful therapy in highly sensitized patients

OP-132 THE CLINICAL PROGNOSIS OF THE RENAL RETRANSPLANT PATIENTS: A SINGLE CENTER EXPERIENCE

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Purpose: Retransplantation is a treatment option in patients with end-stage renal failure due to graft loss. Outcomes of this patients due to high immunologic risk remains unclear. The aim of this study was to evaluate outcomes of renal retransplantation patients retrospectively.

Material and method: Renal retransplant(≥ 2) patients in our unit were evaluated retrospectively between 2010-2018. All the patients' demographic data, primary diseases, the causes of prior graft loss, immunologic status, desensitization protocols, the induction and maintenance treatments, the complications during the follow up period, numbers of acute rejections, the reasons for hospitalization and the clinical prognosis were all detected from the patients' files.

Findings: We retrospectively evaluated a total of 17 patients (13M, mean age 39.2 ± 9.7 years, mean follow-up time 25.7 ± 26.7 months, mean BMI 23.4 ± 3.5 kg/m²) who underwent a second or third renal allograft. Of these, 16 were received a second and the remaining one patient was received third renal allograft. Ten patients had a history of blood transfusion. Two patients were hepatitis B virus and 1 patient was hepatitis C virus positive. Immunologically, totally of 17 patients had negative FC-XM, one patient had a positive CDC-XM Auto 12%, 16 patients had positive PRA, the median HLA-mismatch was 3.5, the score of DSA-RIS was 6.4 ± 6.3 . Ten pretransplant patients had desensitization treatment (Plasmapheresis for 3 patients, rituximab for 2 patients, rituximab+plasmapheresis for 5 patients, (rituximab+plasmapheresis and in additionally IVG for the 2 of the last 5 patients)). While scores for HLA-MM and HLA-RIS in the patients who had a desensitization therapy were determined higher, no statistical difference was observed between the patients who had a desensitization therapy or not (respectively, $p:0.28$ and 0.55). All patients received induction therapy with Thymoglobulin except one patient who was HCV positive. As maintenance treatment, all patients received tacrolimus, mycophenolate mofetil and steroids. While the mean serum creatinine level (Scr) at the pretransplant period was 7.5 ± 2.2 mg/dl, it was 1.22 ± 0.5 mg/dl at the posttransplant discharged period. During the follow up period, the last mean Scr of the patients was 1.26 ± 0.6 mg/dl. No acute rejection episode developed. Three patients were hospitalized due to infection. BK virus (BKV) DNA viremia was detected in four patients' during the posttransplant 6th month. We estimated no patient death or no graft loss during the follow up period.

Conclusion(s): Although the retransplant patients who had a graft loss previously have a high immunological risks, retransplantation is reliable at these patients but they should be followed up carefully in terms of BKV nephropathy.

OP-133 THE OUTCOME OF DESENSITIZATION THERAPY IN IMMUNOLOGICAL HIGH-RISK KIDNEY TRANSPLANTATION: SINGLE-CENTER EXPERIENCE

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Purpose: Sensitization to HLA antigens creates an immunologic barrier, linked to an increased risk of antibody-mediated rejection (ABMR) and poorer graft survival, that remains a persistent and often impenetrable deterrent to transplantation. Desensitization can improve transplantation rates in broadly sensitized kidney transplant recipients. We aimed to compare the clinical outcomes of immunological high-risk kidney recipients who had desensitization treatment or not.

Material and method: We retrospectively evaluated patients who underwent desensitization protocol due to immunological risk between 2010-2018. Living-donor transplantation patients with PRA positivity, re-transplantation, DSA and/or single BEAD positivity were included in the study. We excluded patients with deceased-donor. Demographic data (age, sex, etiology of end-stage renal disease, blood transfusions, pregnancy, etc.), immunological status (HLA-MM, PRA, DSA, etc.), induction and maintenance immunosuppressive medications, complications (all-cause hospitalizations, episodes of acute rejections, etc.) were noted. We compared data and clinical outcomes of patients who had desensitization (Group 1) versus had not (Group 2)

Findings: There were 124 living kidney donors (49F, mean age 43.7 ± 12.2 years, mean BMI 25.7 ± 5.8 kg/m²) with a mean follow-up time 20.8 ± 14.6 months. 34 patients (25F, mean age 43.7 ± 12.5 years, mean follow-up time 226.1 ± 17.7 months, mean BMI 27 ± 6.5 kg/m²) had desensitization treatment (Rituximab+Plasmapheresis for 13 patients, Rituximab for 11 patients, Plasmapheresis for 6 patients, Rituximab+Plasmapheresis+IVIg for 3 patients and Plasmapheresis+IVIg for 1 patient). 90 patients (24F, mean age 43.7 ± 12.2 years, mean follow-up time 18.9 ± 12.9 months, mean BMI 25.3 ± 5.4 kg/m²) had not have desensitization. There was no statistical difference between groups for age, sex, hepatitis serology, history of blood transfusion, pregnancy and history of dialysis ($p < 0.05$ for all parameters). While scores for HLA-mismatch and HLA-Relative intensity scale (RIS) were 2.7 ± 1.6 and 7.86 ± 6.2 in Group 1, in Group 2 same scores were 2.1 ± 1.1 and 3.6 ± 2.5 (respectively, $p: 0.053$ and 0.03). Delayed graft function, acute rejection episodes, and hospitalizations were similar between groups (respectively, $p: 0.47$, 0.29 and 0.34). Follow up time and length of hospitalizations were longer in Group 1 (respectively $p: 0.013$ and 0.001). Total doses of ATG were higher in Group 1 patients ($p: 0.007$). Immunological and biochemical parameters of both groups were shown in Table.

Table: Immunological and biochemical parameters			
	Desensitization(+)(n:34)	Desensitization(-)(n:90)	p
Total ATG doses	575±190	498±112	0.007
No of HLA mismatch	2.7± 1.6	2.1± 1.1	0.053
PRA Class I(MFI)	9415± 12605	3216± 4630	0.13
PRA Class II (MFI)	6966±6371	2063±4630	0.009
HLA RIS*	7.86±6.2	3.6±2.5	0.03
DSA Class I (MFI)	2405±2248	1049±993	0.11
DSA Class II(MFI)	2549±2852	1113±547	0.007
DSA RIS	3.3±2.5	2.4±0.8	0.054
Serum creatinine level (Exchange day) (mg/dl)	1.43±1.45	1.28±0.46	0.38
Serum creatinine level (1 th years) (mg/dl)	1.12±0.33	1.33±0.80	0.24
Serum creatinine level (last visit) (mg/dl)	1.47±1.5	1.35±0.77	0.55

*RIS: Relative intensity scale

Conclusion(s): Despite the higher HLA-MM and RIS scores, clinical outcomes in desensitized patients were found to be similar with non-desensitized patients for acute rejection episodes and hospitalizations. Desensitization with rituximab in patients with high HLA-RIS scores can prevent acute rejection and hospitalization.

OP- 134 LIVING VERSUS DECAESED DONOR KIDNEY TRANSPLANTATION: WHO WANTS TO BE A LIVING DONOR?

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Purpose: Kidney transplantation (KT) is the therapy of choice for pediatric patients with end stage renal disease. KT with a living donor (LD) is a better option, because it results in better KT outcomes and provides the opportunity of preemptive KT. The aim of this study is to investigate the characteristics of donating and non-donating families to determine the factors that lead some families to spend their kidney and others wait until DD KT.

Material and method: In a prospective cross-sectional study, prevalent KT patients and their families were analyzed at the Division of Pediatric Nephrology (Medical University Vienna). State of knowledge and belief on LD KT and the quality of physician-patient communication were assessed by a questionnaire.

Findings: Families of 20 children with LD KT and 24 children with deceased donor (DD) KT participated in the study. Ten transplants were preemptive (9 LD, 1 DD). Seventeen of 24 non-donating families (71%) were checked up for organ donation and one except all were suitable for organ donation. Patients with DD KT were younger at first referral and at KT. Time between first referral and KT and duration of dialysis were similar between two groups. No significant differences were found in state of knowledge and belief on LD KT and the quality of physician-patient communication between two groups.

Conclusion(s): Knowledge and beliefs on living organ donation did not influence the act of living donation in our cohort. Other medical and sociocultural factors should be investigated to find the differences between living donating and non-donating families. These investigations could lead to significant increases in access to pediatric KT.

1st INTERNATIONAL TRANSPLANT NETWORK CONGRESS

ABSTRACT BOOK – Poster Presentations

PP-1 CO-ORDINATING DECEASED DONOR TRANSPLANTATION: OUR EXPERIENCE OVER A DECADE

Nischith Dsouza

Associate Professor In Urology, Yenepoya Medical College And Member, Jeevasarthakathe

Purpose: Due to the increasing prevalence of diabetes and hypertension, there is an ever increasing number of patients with chronic kidney disease. Despite the rising number of living related transplants, there is a large pool of patients with no suitable donors. Due to the poor public attitude towards organ donation after brain death and regulations to encourage only related donations, there is a huge gap in demand and supply of organs for kidney transplant. The Zonal Coordination Committee for Karnataka was started in the year 2007 to coordinate the deceased donor transplantation activities, oversee the implementation of the Transplantation of Human Organs Act of 1994 and also educate the public on organ donation. From supervising a handful of deceased donor transplants in a few hospitals situated in the capital city of Bengaluru, it has grown to a large organization over the past decade overseeing more than 70 donations in a total of 44 transplant centres last year. We review our journey over the past decade.

Material and method: ZCK formulates guidelines for deceased organ donation and maintains the organ transplant registry. It oversaw the conduct of 3 transplants in the first year, which increased to 18 over the next 5 years. The rapid rise of media and internet coincided with the rapid rise in organ donations. Using the governmental arm, awareness campaigns were conducted in a systematic manner, with promotional activities, seminars, workshops and educational programmes. The public awareness programme took place through hospitals, educational institutions, corporates and non-governmental organizations along with media participation to create a positive attitude towards organ donation among the public and also initiate registration of donor cards. More transplant centres were issued licenses to conduct such procedures and with this, the total donations, rose to 60 in 2015. Many patients had to travel long distances and spend significant amount of money to undergo transplant. Hence, in the year 2015, ZCK issued licenses to hospitals outside the capital city and 2 cadaver transplants happened in the first year. With the rising number of retrievals, four zones were formed within the state, with preferential conduct of transplants within the zone. This increased the number outside the capital city to 11 in 2016, out of a number of 70 in the state. To increase the pool of organs, non-transplant organ retrieval centres were issued licenses for organ retrieval. The first such hospital was NIMHANS which has one of the largest Neuro and Trauma centres in the world.

Findings: There are currently 44 transplant centres in Karnataka state, conducting around 70 cadaver transplants a year. The ZCK has been now been renamed JEEVASARTHAKATHE, under the supervision of the Ministry of Health and Family Welfare <http://www.jeevasarthakathe.karnataka.gov.in>

Conclusion(s): Jeevasarthakathe, under the aegis of Health and Family Welfare, Government of Karnataka, has been working through a team effort of participating hospitals to achieve a sustained cadaveric transplant programme in the state. The program which was overseeing a handful of transplants in a few centres during its inception is currently coordinating 44 transplant centres in Karnataka state, conducting around 70 cadaver transplants a year. With a decade of experience, it also encourages and cooperates with other states and small countries in their cadaver transplant program.

PP-2 REHABILITATION BEFORE AND AFTER SOLID ORGAN TRANSPLANTATION IN TURKEY: WHERE ARE WE?

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Purpose: This position paper aimed to increase the awareness of solid organ transplantation (SOT) rehabilitation and discuss the strategies for road to rehabilitation.

Material and method: Transplant rehabilitation is a relatively new field, and literature about the principles or guidelines is scarce. When we searched key-words "SOT and rehabilitation" in English in PubMed, only 79 articles were found. Unfortunately, there are no published studies in Turkey. The authors, competent in rehabilitation and having some expertise in pulmonary and cardiac transplantation rehabilitation, will try to discuss and stimulate ideas on the key issues of SOT rehabilitation.

Findings: Conditions requiring rehabilitation in SOT includes muscle atrophy and weakness, decreased bone density, fatigue, reduced exercise, functional and cardiopulmonary capacity, and quality of life (QoL), and deteriorated psychosocial factors. While there is a need of specialized rehabilitation program for each SOT, there are no adequate and valid guidelines except for cardiac and pulmonary transplantation. Rehabilitation programs should aim maintaining and improving physical functioning, independence, and QoL. Preventive measures for complications of immobilization such as contractures, DVT, pulmonary embolism, as well as skin maintenance and preservation of bowel and bladder function are imperative. It is not very clear when rehabilitation should begin before planned SOT, but it should start immediately after SOT. In Turkey, although the number of rehabilitation centers is 2178, the sources are not sufficient for all the patients in need of rehabilitation regarding staff and infrastructure. Most of the rehabilitation sources provide service to mainly neurologic and orthopedic patients, which is a barrier for effective rehabilitation in SOT. Furthermore, there is a lack of awareness about the necessity of rehabilitation in the other conditions including SOT, in both the medical staff; including rehabilitation staff, and the patients (considering that even in the present congress rehabilitation subheading is not included), which is one of the main barriers for an efficient rehabilitation intervention. Other barriers are financial status, lack of social support, and logistics. Actually, the total number of SOT in 2017 is 4015 in Turkey, which is quiet manageable in terms of sources when organized properly.

Conclusion(s): Rehabilitation before and after SOT should definitely be part of the treatment plan in terms of increasing the quality of life of patients and ensuring harmonization with healthy living. Rehabilitation strategies and implementation of the program should be determined by the team members including physical medicine and rehabilitation specialist and the patient.

PP-3 BURSA BÖLGESİ ORGAN NAKLİ KOORDİNATÖRLERİNİN ÇALIŞMA KOŞULLARININ AİLE BAĞIŞ ORANLARINA ETKİSİNİN İNCELENMESİ

Müjgan Öztürk, Yasemin Berkant, Asli Dübek, Türkan Yılmaz Ulusoy

Sağlık Bilimleri Üniversitesi Bursa Yüksek İhtisas Eğitim Ve Araştırma Hastanesi

Purpose: Bu çalışmada Bursa Bölgesinde çalışan Organ Nakil Koordinatörlerinin durum tespitini yapmak, koordinatörlerin çalışma yılı ve aldığı eğitimin aile bağış oranına etkisini incelemek amaçlanmıştır.

Material and method: Bursa bölgesine bağlı olarak çalışan 51 Organ Nakil Koordinatörüne anket yöntemiyle sorulan sorulardan elde edilen veriler istatistiksel olarak değerlendirilmiştir.

Findings: Yapılan anket test sonucunda elde edilen bulgular değerlendirildiğinde ortaya çıkan sonuçlar; Bölgemizdeki Organ nakli koordinatörlerinin % 66.6'sı hekim dışı sağlık personeli iken %33.3'ü hekimlerden oluşmaktadır. Koordinatörlerin %49'u sertifikalı, % 51'i sertifikasız iken, hekim dışı sağlık personeli olan koordinatörlerin % 47'si, hekimlerin ise % 53'ü sertifikalı olarak çalışmaktadır. Koordinatörlerin % 53'ü 4 yıldan daha az, % 41.2'si 5-10 yıl arası, % 5,8'i 10 yıldan daha uzun süredir ve %80,4'ü asıl görevlerine ek olarak organ nakil koordinatörlüğü yapmaktadır. Bunun yanında hekim dışı sağlık personelinin % 53 yoğun bakımda görev alırken, % 47'si ise yoğun bakım dışında çalışmaktadır. Beyin ölümü tespiti sonrasında koordinatörlerin aile izni alma oranları incelendiğinde; hekim dışı sağlık personellerinde sadece koordinatörlük yapanlarda % 36,5, yoğun bakımda hekimle birlikte çalışanlarda % 25,9, yoğun bakımda hekimsiz çalışanlarda %35,6, yoğun bakım dışında çalışıp ek olarak koordinatörlük yapanlarda bu oran %29.7'dir. Sertifikalı koordinatörlerin onay alma ortalaması % 34.4 iken, sertifikasız koordinatörlerde bu oran % 23.5 tir. Sertifikalı hekim koordinatörlerde aile izni alma ortalaması % 35.1 iken, hekim dışı sağlık personeli koordinatörlerde bu oran % 34'tür. Sertifika eğitimi almamış olan hekim koordinatörlerde aile izni alma ortalaması %30.2, hekim dışı sağlık personeli koordinatörlerde ise %25.5 tir. Koordinatörlük yapma yıllarına göre aile izni alma ortalamasına bakıldığında; 0-2 yıl arasında çalışanlarda %24, 3-5 yıl arasında çalışanlarda %37, 6 yıl ve üzeri çalışanlarda bu oranın %39 olduğu görülmüştür.

Conclusion(s): Bu çalışmadan elde edilen bulgular doğrultusunda beyin ölümü tespiti sonrasında organ bağışı için aileden izin alma oranlarını organ nakil koordinatörünün sertifikalı olması ve 3 yıldan daha uzun süredir koordinatörlük yapmasının olumlu yönde etkilediği, buna karşın koordinatörün hekim veya hekim dışı sağlık personeli olması arasında anlamlı bir fark olmadığı görülmüştür. Sonuç olarak; organ nakli koordinatörlerine yönelik yapılan eğitim ve sertifikasyon programlarının daha sık aralıklarla düzenlenmesi, koordinatörlerin uzun yıllar görev yapması desteklenerek sistem içerisinde kalmaları sağlandığında bağış oranlarının artırılacağı öngörülmüştür.

PP-4 EXAMINATION OF THE PROCESSES OF DONORS BETWEEN ADMISSION TO INTENSIVE CARE UNITS AND FAMILY APPROVAL IN YEAR 2017 IN İZMİR /TURKEY

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Purpose: In 2017 ,102 of the 229 brain death cases identified in the İzmir organ and tissue transplantation regional,coordination center in Turkey were used as donors.It is aimed to investigate the effects of the donors on the process of being on intensive care recipient and donor.

Material and method: Between January 1 2017 and December 31,2017 the donor source hospitals in İzmir ,Manisa,Muğla ,Aydın,Denizli,Kütahya and Uşak provinces which are affiliated to the İzmir Regional Coordination Center,were visited, the interviews were conducted with the hospitals coordinators and the archives were reviewed.

Findings: Of the 102 cases,the period between the admission to intensive care units and monitoring by the hospital coordinators was 0-1 day in 40 cases (% 39),1-2 days in 30 cases (%29,4),2-3 days in 15 cases (%14,7),3-4 days in 8 cases (%7,8),4 days and more in 9 cases (%8,8). It was determined the passing time between the starting the monitoring of donor candidates and being a donor as 0-1 day in 55 cases (%53.9),1-2 days in 36 cases (%35.2),2-3 days in 7 cases (%6,8),3-4 days in 3 cases (%2,9),4 days and more in 1 cases (%0,9.). The passing time between the diagnoses of brain death and family refusal was 0-1 day in 15 cases (%14.7),1-2 days in 9 cases (%8.8),2-3 days in 5 cases (% 4.9),3-4 days in 21 cases (% 20.5), 4 days and more in 52 cases (%50.9).The rate of donor approval from donor relatives was found to be % 49.5.

Conclusion(s): It was observed that %65 of the potential organ donation cases were detected by the hospital coordinators in first 48 hours after the acceptance in intensive care units and 95 % of the cases were identified as donor in first 48 hours aftr the monitoring of donor candidate.Our data also showed that the increasing the awereness of intensive care workers and organ transplant coordinators through the training should be required for increasing the detection of potential organ donors.

PP-5 OUR BRAIN DEATH AND ORGAN DONATION EXPERIENCE:OVER 12 YEARS

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Purpose: Nowadays, as the number of patients waiting for organ transplant is increasing, it is important to diagnose brain death in intensive care units and to do a good donor care. We aimed to share our experience of donor care with the diagnosis of brain death in our clinic.

Material and method: 151 patients diagnosed with brain death in our clinic between June 2006 to 2018 were studied retrospectively.

Findings: The mean age of the 151 patients was 46.6 (1-89)years. 57 (37.7%) of 151 patients family accepted donation. 10 out of 57 patients could not have organ donors with medical reasons. 84 kidneys, 7 hearts, 40 liver were transplanted to the patients. When the diagnosis of admission to the intensive care unit was examined, it was found that the most common diagnosis was intracranial hemorrhage (36.8%), head trauma (21.05%), drowning in water and firearm injury(3.5%). Apnea test was applied to all cases and 17 patients could not complete the apnea test In 63% of patients (n=95), in order to support the diagnosis of brain death, radiological methods were performed. Cranial computed tomography angiography was performed as a radiological method. All cases were found to have received at least one inotropic support. We used dopamine in 41 patients, noradrenaline in 36 patients, dobutamine in 8 patients and adrenaline in 3 patients. During the 12 months that the organ transplant coordinator was not on duty, there were no organ donor. It is important to maintain organ and tissue transplant coordinator and intensive care unit team for organ donation.

Conclusion(s): In order to increase the donor pool in cadaver, it is necessary to increase the number of brain death diagnosis and decrease the rate of family rejection. Therefore, patients with poor neurological prognosis should be carefully monitored for brain death. Successful family discussions by an experienced and trained organ transplant coordinator should try to increase donation rates by emphasizing the importance of organ donation and the fact that brain death is a real death.

PP-6 BEYİN ÖLÜMÜ TESPİT KURULUNDAKİ UZMAN HEKİMLERİN ORGAN BAĞIŞINA BAKIŞ AÇILARININ İNCELENMESİ

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Organ Ve Doku Nakli Bursa Bölge Koordinasyon Merkezi

Purpose: Organ ve Doku Nakli Bursa Bölge Koordinasyon Merkezine bağlı illerde düzenlenen Beyin ölümü ve Donör bakımı eğitimlerinde, beyin ölümü tespit kurulunda yer alan beyin cerrahı, nöroloji ve anestezi uzmanlarının organ bağışına bakış açılarının değerlendirilmesi amaçlanmıştır.

Material and method: Bursa Bölgesine bağlı Bursa ve Balıkesir illerinde düzenlenen uzman hekim eğitimine katılan 222 uzman hekime önceden oluşturulan soruların anket yoluyla sorulması ile elde edilen sonuçların istatistiksel olarak değerlendirilmesi yapılmıştır.

Findings: Yapılan anket / yapılandırılmış test sonucunda elde edilen bulgular değerlendirildiğinde aşağıda yer alan sonuçlara ulaşılmıştır. Katılımcıların %82'sinin beyin ölümünü, ölüm olarak kabul ederken, beyin ölümü tanısı koymakla yükümlü uzman hekimlerin %12'si beyin ölümünü, ölüm ile eşdeğer bulmadığını belirtmiştir. Cevapların değerlendirilmesinde uzman hekimlerin sadece %37'si potansiyel donör kavramını doğru tanımlarken, %44'ü klinik tanı net olduğunda beyin ölümü tanısında ek test ihtiyacı duymamaktadır. Beyin ölümü gerçekleşmiş aile izni alınamayan vakalarda hekimlerin %70'i destek tedavinin kesilmesinde tereddüt yaşamazken, %15'i etik olarak uygun bulmamakta, %10'u da hukuken suç işlediğini düşünmektedir. Son olarak uzman hekimlerin sadece %26'sı organ bağışı yaptığını ifade ederken, %65'i organ bağışı yapmadığını ilerleyen zamanlarda yapmayı düşündüğünü, %9'u kesinlikle kendisinin ve yakınlarının organ bağışına onay vermediğini belirtmiştir. Uzmanların %41'i beyin ölümü tanısı koymakta kendini yeterli görürken, %33,8'i ise hukuki ve etik açıdan çekinceleri olduğunu belirtmiştir.

Conclusion(s): Çalışmadan elde edilen bulgular ışığında beyin ölümü tespitinde ve organ bağışında daha iyi oranlara ulaşabilmek için beyin ölümü tespit kurulundaki uzman hekimlere sürekli eğitimlerin planlanması gerektiği görülmüştür.

PP-7 KNOWLEDGE, ATTITUDES AND BEHAVIORS OF HEALTHCARE WORKERS ABOUT ORGAN DONATION

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Purpose: This study aimed to determine knowledge, attitudes and behaviors of healthcare workers regarding organ donation.

Material and method: The study was planned as a descriptive study and conducted between March 1st and June 1st, 2016 with healthcare workers working in two university affiliated hospitals (one public and the other a foundation hospital) in Istanbul, Turkey. The study was conducted in two phases: in the first phase, healthcare workers accepting to participate in the study were asked whether they consider donating their organs or not. In the next phase, a survey comprising questions about sociodemographic characteristics, knowledge, attitudes, and behaviors of participants regarding organ donation was conducted by face to face interview method.

Findings: Of 460 healthcare workers in two university affiliated hospitals who agreed to participate in the first phase of the study, 90 (19,57%) stated that they considered to donate at least one of their organs and had already gained an organ donor card. Eighty-five healthcare workers accepted to take part in the second phase of the study. Participants in the second phase were between 26 and 30 years old, with female gender (public, 85,5% and foundation 70%) and mostly nurse (profession) (public 76,4% and foundation 56,7%). In the second phase, it was found that there was only a few participants who has really donated their organs (public 12,7% and foundation 30%). The majority of participants stated that they did not feel themselves ready or so far they had never thought about this matter. It was noted that majority of the healthcare workers could consider donation organs of any of their relatives and more than half of the participants approved their organs to be donated by their relatives when they die. The majority of the healthcare workers believes that no one other than patients waiting for an organ or tissue is interested in transplantation and thinks that the press or visual media provide not enough information to society about the subject.

Conclusion(s): The sense of organ donation of healthcare workers and their knowledge about the subject was found to be significantly poor. Unfortunately, the ratio between donation and willingness to donate organs among healthcare workers were significantly low, therefore there is a strong need for educational activities about organ donation. Besides that as a vital action for future, all healthcare workers should inform and motivate their patients for organ donation while providing standart health care.

PP-8 KURULACAK OLAN ORGAN NAKLİ MERKEZİ; BÖLGEDE KADAVRA ORGAN BAĞIŞINI ETKİLERMİ

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Purpose: Bu çalışma da amaç, Isparta da 2015 yılında kurulmuş olan Süleyman Demirel Üniversite Hastanesi Organ Nakli Merkezinin bölge de kadavra organ bağışına etkisinin olup olmadığının belirlenmesi.

Material and method: 2013 mayıs- 2015 mayıs ve 2015 mayıs- 2017 haziran aralıklarındaki Isparta şehir içerisinde bulunan üçüncü basamak yoğun bakıma sahip tüm özel ve kamu hastanelerin beyin ölümü tanı ve aile bağış verileri ile bu dönemlerdeki ülke geneli beyin ölümü tanı sayıları retrospektif olarak incelendi. Organ bağışını kabul edenler ile reddedenler karşılaştırıldı.

Findings: Çalışma dönemini kapsayan 2013 Mayıs ve 2017 Haziran aralığı içerisinde Isparta da toplam toplam da 62 beyin ölümü vakası tespit edilmiştir. 2013-2015 yılları aralığı nakil merkezi açılmadan önceki dönem ve 2015-2017 yılları aralığı ise nakil merkezi açıldıktan sonraki dönem olarak gösterilmektedir. 2013-2015 aralığında toplam 27 beyin ölümü tespiti ve 2015-2017 aralığında ise toplam 35 beyin ölümü tespiti yapıldığı görülmektedir. Olgu 1 ve Olgu 2 tablolarında Organ Nakli Merkezinin bulunduğu Hastane ve şehirde bulunan diğer hastanelerin aile izni olmayan ve aile izni olan beyin ölümü vakalarının değerleri gösterilmektedir. 2013-2015 aralığında Organ Nakli Merkezinin bulunduğu hastanede 14 beyin ölümü tanısı konulurken 2 aile bağış yapmış ve geri kalan 12 aile bağışa hayır demiştir. Diğer hastanelerde 13 beyin ölümü vakasının 5'i organ bağışına evet derken, geri kalan 8 aile bağış yapmamıştır. 2015-2017 yılları arasında ise Organ Nakli Merkezinin bulunduğu hastanede 24 beyin ölümü tanısının 14'ü organ bağışında bulunurken, geri kalan 10 aile organ bağışına hayır demiştir. Şehirdeki diğer hastaneler de ise 11 beyin ölümü tanısı konulurken, bunlardan 5 aile organ bağışına onay verirken, diğer kalan 6 aile de organ bağışına hayır demiştir. 2013-2015 yılları arasında toplamda 27 beyin ölümüne karşılık 7 ailenin bağış yaptığı görülürken, 2015-2017 yılları arasında ise 35 beyin ölümü tanısına karşılık 19 ailenin vakanın organlarını bağışladığı görülmektedir. Ülke geneline baktığımızda ise 2013 -2015 yılları arasındaki beyin ölümü tanısı oranının yaklaşık % 15 arttığı, 2015-2017 yılları arasında ise sabit düzeyde seyrettiği görülmektedir. Yine Isparta şehrinin bağlı bulunduğu Bölge Koordinasyon Merkezi verilerine baktığımızda ise 2013-2015 yılları arasında beyin ölümü oranında düşüş gözlenirken, 2015-2017 arasında ise yaklaşık %15'lik bir artış görülmektedir.

Conclusion(s): Bu çalışma organ nakli merkezinin beyin ölümü tanı sürecini kolaylaştırdığını ve böylelikle sayının artırılarak organ bağışının daha da artırılabilirliğini düşündürmektedir. Çalışmadan çıkarılabilecek diğer sonuçlar ise, nakil merkezinin bulunduğu hastanenin daha kolay tanı koyduğunu ve öncesine göre daha çok organ bağışı aldığını göstermektedir. Buradaki etkinin ekip olarak buna katkıda bulunulması gereken çalışmaların yapılması olduğu görülmektedir. Nakil merkezi kurulduktan sonraki yönetsel faaliyetlerin artması, beyin ölümü tanısının daha aktif konulabilmesi, tanı sürecinin kısalması, yoğun bakım aile bilgilendirmelerinin daha dikkatli yapılması, kapıda duran güvenlikten yoğun bakımda çalışan personele merkez de yapılan nakillerin farkındalığı ile hareket edilmesi, nakil merkezinin şehirdeki başarı hikayeleri ve organ nakli koordinatörlerinin başarıları faktörlerin hala en önde gelen konuları olduğu tespit edilmiştir.

PP-9 CURRENT PLAN FOR APPROACHING THE FAMILIES OF POTENTIAL ORGAN DONORS IN MONGOLIA

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Purpose: In Mongolia, organ donation and transplantation program started in 1996. Since then successfully transplanted over 200 organs. The legal framework for deceased donation is described in the Revised Donor Law. Currently, for consent/authorization using opt-in system. During the last decade, very significant gains have been made towards living donor donation. But very little improvement has been done in cadaver donation comparing to our expected outcome.

Material and method: trainings

Findings: Based on our current situation and international evidence data, we planned to implement the following approaches to improve family consent rate. Those are: To present a concise articles of current professional and ethical guidance on approaching the family of a potential donor within the ICU according to donor law, Re-train ICU doctors as a transplant coordinator with step-wise guidance on approaching the family of the potential donor To identify all patients who are potentially suitable donors as early as possible, through BD guideline

Conclusion(s): To provide accurate information to family members to get consent/authorization by the participation of ICU doctors. The proper information and right emphasis on organ donation benefits will help family members get right understanding from the professional staff before making crucial decisions in their difficult times The proper training of transplant coordinator program for the ICU doctors should improve their knowledge, experience and skills. It can help to increase current family approach frequency and consent/authorization rate in the ICU. Early identification of potential donor and its referral should be improved after implementation of our planned approach.

PP-10 BURSA BÖLGESİNDE YAPILAN UZMAN HEKİM EĞİTİMLERİNİN KADAVRADAN ORGAN BAĞIŞINA ETKİSİNİN İNCELENMESİ

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Purpose: Ülkemizde kadavradan nakil sayılarının yetersizliği, son dönemde organ yetmezliği nedeniyle tedavi gören birçok hastanın organ beklerken hayatını kaybetmesine neden olmaktadır. Yaptığımız bu çalışma Avrupa Birliği “Organ Bağışında Uyum İçin Teknik Yardım” projesi kapsamında Organ ve Doku Nakli Bursa Bölge Koordinasyon Merkezine bağlı illerde düzenlenen uzman hekim eğitimlerinin kadavradan organ bağışına etkisi araştırılmıştır.

Material and method: Bursa Bölgesine bağlı olan illerin eğitim öncesi Beyin Ölümü / Donör sayılarının 2014, 2015 ve 2016 yıllarında düzenlenen uzman hekim eğitimlerinin beyin ölümü/donör sayılarına etkileri retrospektif olarak incelenmiştir.

Findings: Yapılan eğitimlerin etkileri incelendiğinde ilk olarak bölgedeki tüm illerin katıldığı eğitim sonrası toplam donör sayısı 2014 yılında 54 iken, 2015 yılında bu rakam 80 ile %48 artış, 2016 yılında donör sayısı 117 ile %116,6 oranında artmıştır. 2014 yılında tespit edilen beyin ölümlerinin 154, aile onayı %35 iken, 2015 yılında beyin ölümü sayısı 226 ve aile onayı %35, 2016 yılında da beyin ölümü tespit sayısı 241, aile onayı %48,5 olmuştur. Bölgesel eğitimin tekrarlandığı Balıkesir ilinde 2014 yılında donör sayısı 17 iken 2015 yılında 30 olarak %76 oranında, 2016 yılında da 35 ile %105 oranında, Düzce ilinde 2014 ve 2015 yıllarında donör sayısı 0 iken 2016 yılında 4 ile % 400 oranında artmıştır. Bursa illinde de 2014 yılında 28 olan donör sayısı 2015 yılında 33 ile %17,8, 2016 yılında da 58 donör sayısı ile %107 oranında artmıştır.

Conclusion(s): Avrupa birliği ‘’ Organ Bağışında Uyum İçin Teknik Yardım Projesi ‘’kapsamında başlayan ve uzman kişiler tarafından verilen“Beyin Ölümü- Donör Bakımı ve Aile Görüşmesi” eğitimlerinin bölgemizde hiç donör bildiriminde bulunmayan hastanelerde bile büyük uyanışlara neden olduğu görülmüştür. Tekrarlanan uzman hekim eğitimlerinin hekimlerde farkındalık ve duyarlılık yaratarak tespit edilen beyin ölümü vakalarının ve donör sayılarının artışında önemli bir etkisi olduğunu göstermiştir. Buradan hareketle; bölgesel bazda eğitimlerin tekrarlanması gerektiği sonucuna ulaşılmıştır.

PP-11 BRAIN DEATH AND MULTIPLE ORGAN TRANSPLANTATION IN CHILDREN: CASE PRESENTATION

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Purpose: A 9-year-old 3-month-old male patient was admitted to the intensive care unit of our hospital for the long duration of cardiopulmonary rehabilitation following a long period of seizure. It was learned that the patient had a seizure 2 years ago in his CV, no abnormality was detected in the examinations performed at that time and the decision to take the drug without medication was taken because he did not repeat the seizure. The admission to the pediatric intensive care unit was GCS = 3 and no brainstem reflexes were taken. Hypertonic solution, midazolam infusion, levetiracetam, hypothermia treatment started. During the 24-hour follow-up, the sedative and pain relievers of the patient who had not changed the neurological examination were discontinued. Twenty-four hours after the medication was discontinued, the patient underwent CT angiography on the patients repeated neurological examination and the clinical condition was compatible with brain death. On the first computed tomography (CT) scan, both hemispheres showed diffuse, cisternic hemorrhage, hemorrhages as hemorrhages in the hemispheres, corticocisternal spaces and ventricles were faint and gray white matter separation was observed and the brain was evaluated as compatible with death because of minimal blood circulation. Supportive care of the organs (enteral nutrition, close-up electrolyte follow-up, close MCH, inotropic follow-up, monitoring with minimal mechanical ventilation) continued in intensive care unit. CT angiography, which was repeated on the 12th day of follow-up, was evaluated as compatible with brain death. Accidental brain death was diagnosed by pediatric neurology and pediatric intensive care units and information was given to the family. We informed our hospital organ transplant coordinator for the evaluation of the case as a donor. After the necessary interviews, the family confirmed that the child was a donor six hours after being diagnosed with brain death.

Material and method:

Findings:

Conclusion(s): The case became donor for transplantation of the heart, liver, kidney and cornea. According to previous years, pediatric organs have begun to be used for both children and adults. For this reason, it is necessary to know the incidents that may happen in the children as well as the donor candidates, the correct and timely recognition of the brain death, and the importance of organ donation to the health team. Supportive treatment should be meticulously maintained in possible donor cases and supporting diagnostic tests should be repeated at appropriate intervals. This process should be shared with the family.

PP-12 ANALYSIS OF THE RELATIONSHIP BETWEEN BLOOD DONATION AND ORGAN DONATION

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Purpose: Blood and organ transplantation treatment can not be performed at the desired level, although it has life-saving characteristics. This study was aimed to analyze the relationship between blood donation and organ donation.

Material and method: This cross-sectional study was conducted with healthcare personnel working in a education and research hospital in Ankara. 1012 (84.3% of total) health personnels participated in the study. Survey method was used in the research.

Findings: 51.4% of the participants were blood donors, 32.5% were willing but not yet donated, 4.1% did not consider to donate, and 12.0% could not forgive due to medical reasons. Additionally, It was found that 52.8% of health personnel were volunteer for organ donation, however, 16.7% of them had organ donation card.

Conclusion(s): There is a significant relationship between blood donation and organ donation. Non-volunteers for organ donation are more positive to donate blood than volunteers. It is evaluated that positive behavior towards blood donation is higher and it should be provided also in organ donation.

PP-13 ASSESSMENT OF DONORS TRAINING NEEDS IN TRANSPLANTATION PRACTICES

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Objective: The aim of this study was to assess the information needs about self-care at the discharge of individuals who underwent surgery for organ donation purposes and determine the factors associated with their training needs.

Materials and Method: This descriptive study was conducted in a research hospital affiliated with a foundation university in Istanbul .The sample of the study consisted of 73 individuals (donors) who underwent surgical intervention for organ donation and were planned to be discharged after organ donation in the hospital between May 01 and November 01, 2017 .The "Donor Information Form" and the "Form for Determining Post-transplant Training Needs of Donors", which were drawn up by using information in the literature, were used to collect study data. This form consisted of 35 questions divided into two sections (1)“ :Health Perception and Health Management, (2) Daily Life Activities (nutrition, elimination, infection ,physical activity, medications, sex life). An increase in the score obtained from this form indicates that the training needs of donors about post-discharge practices are decreasing .

Findings: Mean age of the donors participated in the study was 38.86 ± 10.78 , and 54.8% of the donors were male and 38.4% were high school graduates. The majority of organ donors (53.4%) were kidney donors, and 31.5% donated their organs to their fathers. Mean score obtained from the "Form for Determining Post-transplant Training Needs of Donors" was 137.81 ± 25.96 (ranging from 76 to 170). In the form, the highest score was obtained for the item "I know the harmful habits affecting my health" (4.59 ± 0.91) and the lowest score was obtained for the item "I feel calm and peaceful" (2.41 ± 1.27). The difference between donors training need scores and donors gender, age, and marital status was not statistically significant ($p > 0.05$) whereas a statistically significant difference was established between educational status, work status and being satisfied with discharge training ($p < 0.05$)

Conclusion :It was determined that the donors training needs were at the moderate level and below. We can say that nurses should take a more active role in donor discharge training.

Keywords: Organ transplantation, donor, training needs

PP-14 CORNEAL TRANSPLANTATION OF PATIENT WITH CARDIAC PACEMAKER CONTINUING CLOPIDOGREL TREATMENT

Ceyda Özhan Çaparlar, Evginar Sezer, Derya Özkan

Abstract: Introduction Eye surgery, is an increasingly performed surgery in most countries. The large majority of patients are elderly with many chronic disorders and take regular systemic medications, including antiplatelet and anticoagulant treatments. The management of antiplatelet and anticoagulant drugs for surgery is an increasing problem for physicians.. In this case we will report Corneal Transplantation of patient with cardiac pacemaker and continuing Clopidogrel and Aspirin treatment. Case Report A 83 years old ASA III man with performed coronary artery by-pass graft surgery, diabetes, hypertension, subclinic hyperthyroidism, having intracardiac device as pacemaker and using clopidogrel 75mg and aspirin 100mg daily, was planned to undergo corneal transplantation due to cataract disorder. He was taken as an emergent case for corneal transplantation surgery. Preoperative examination was relatively in normal ranges. Laboratory tests defined hypeglisemia, mild uremia, mild elevated coagulation parameters. Before surgery cardiac pacemaker was setted and regulated in appropriate mode by the cardiac company. To avoid intraoperative bleeding complications pooled platelet suspensions (four units) were prepared ready to be given as described in ESA guidelines. The transplantation procedure was done under general anesthesia ,where propofol, rocuronium and fentanyl were used as induction agents, and anesthesia was maintained with sevoflurane and 50% mixture of oxygen and air. Surgery was completed without any complication. The patient was extubated and sent to Postoperative Care Unit for closely monitorisation of hemodynamic parameters. Conclusion The published literature shows that discontinuation of antiplatelet or anticoagulant treatment leads to potentially life-threatening and substantially increased risk of arterial or venous thromboembolic events and related complications, especially in patients with cardiac abnormalities. This risk is distinctly higher than the risk of significant local haemorrhage. In such cases it is important to assess the delicate balance between the thrombotic risk associated with disruption of antithrombotics and the bleeding risk associated with their continuation.

PP-15 CORNEAL TRANSPLANTATION OF PATIENT WITH CARDIAC PACEMAKER CONTINUING CLOPIDOGREL TREATMENT

Abstract: Introduction: Eye surgery, is an increasingly performed surgery in most countries. The large majority of patients are elderly with many chronic disorders and take regular systemic medications, including antiplatelet and anticoagulant treatments. The management of antiplatelet and anticoagulant drugs for surgery is an increasing problem for physicians. In this case we will report Corneal Transplantation of patient with cardiac pacemaker and continuing Clopidogrel and Aspirin treatment. Case Report: A 83 years old ASA III man with performed coronary artery by-pass graft surgery, diabetes, hypertension, subclinic hyperthyroidism, having intracardiac device as pacemaker and using clopidogrel 75mg and aspirin 100mg daily, was planned to undergo corneal transplantation due to cataract disorder. He was taken as an emergent case for corneal transplantation surgery. Preoperative examination was relatively in normal ranges. Laboratory tests defined hyponatremia, mild uremia, mild elevated coagulation parameters. Before surgery cardiac pacemaker was setted and regulated in appropriate mode by the cardiac company. To avoid intraoperative bleeding complications pooled platelet suspensions (four units) were prepared ready to be given as described in ESA guidelines. The transplantation procedure was done under general anesthesia ,where propofol, rocuronium and fentanyl were used as induction agents, and anesthesia was maintained with sevoflurane and 50% mixture of oxygen and air. Surgery was completed without any complication. The patient was extubated and sent to Postoperative Care Unit for closely monitorisation of hemodynamic parameters. Conclusion: The published literature shows that discontinuation of antiplatelet or anticoagulant treatment leads to potentially life-threatening and substantially increased risk of arterial or venous thromboembolic events and related complications, especially in patients with cardiac abnormalities. This risk is distinctly higher than the risk of significant local haemorrhage. In such cases it is important to assess the delicate balance between the thrombotic risk associated with disruption of antithrombotics and the bleeding risk associated with their continuation.

PP-16 CLINICAL EVALUATION OF DEEP ANTERIOR LAMELLAR KERATOPLASTY (DALK) FOR A HETEROGENEOUS GROUP OF CORNEAL PATHOLOGIES

Kemal Gültekin , Ayşe Burcu , Züleyha Yalniz-Akkaya , Evin Şingar Özdemir , Selma Uzman

University Of Health Sciences Ankara Training And Research Hospital

Purpose: To evaluate the visual outcomes and complications of deep anterior lamellar keratoplasty (DALK) for different corneal pathologies.

Material and method: This is a retrospective review of medical records of a series of patients who underwent DALK from June 2011 to March 2018. The parameters evaluated included patients demographics, pre- and post-operative best corrected visual acuities, and intra- and post-operative complications.

Findings: Sixtyone eyes of 58 patients (32 male and 26 female) with a mean age of $41,79 \pm 16,25$ years underwent DALK for keratoconus (21), stromal dystrophy (24), nonspecific corneal scar (13), corneal scar with limbal stem cell deficiency (1), postLASIK ectasia (1), and descemetocoele (1). The mean follow-up period was $29,63 \pm 24,82$ months (range 6-100). A big bubble was achieved in 85,1% eyes, big-bubble formation failed and viscodissection technique was used to expose Descemet's membrane (DM) in 14,9% eyes. Intraoperatively, perforation of Descemet membrane encountered in 4 eyes. Postoperatively 14 developed a double anterior chamber, which resolved spontaneously (2 eyes) or after intracameral air (7 eyes) or gas injection (3 eyes), and 2 eyes required penetrating keratoplasty. The main complications were suture loosening (6 eyes), graft rejection reaction (4 eyes), microbial keratitis (6 eyes) and elevated intraocular pressure/glaucoma (7 eyes). At latest follow-up, best corrected visual acuity increased from 1.72 ± 0.62 to 0.43 ± 0.22 logMAR.

Conclusion(s): DALK is a promising new technique for management of different corneal pathologies, using poor quality donor corneal tissue. The visual outcomes and complication rates seen in our series are comparable to the recent published literature. DALK can be used as a safe treatment option with good results.

PP-17 CORNEAL PATCH GRAFTS

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Purpose: To investigate the effectiveness of corneal patch grafts for tectonic purposes.

Material and method: Patients who underwent corneal patch grafting for tectonic purpose between January 2005 and March 2018 and who were followed up for at least one year were reviewed retrospectively. Three eyes of gamma-irradiated sterile cornea and 15 donor corneal rims were used.

Findings: Twenty eyes underwent corneal patch grafting for tectonic purpose. The mean age of 9 female and 8 male patients was 47.82 ± 19.65 (15-86) years and the mean follow up time was 43.64 ± 31.88 (12-119) months. Twelve eyes were perforated before grafting. Descemetocoele was the most common indication (50%). Amniotic membrane transplantation was applied to 8 of the patients before grafting. Adequate corneal thickness was obtained in all eyes, postoperatively. Corrected distance visual acuity was 1.00 LogMAR and above in all eyes preoperatively, and was 1.00 LogMAR and below in 8 eyes at final visit.

Conclusion(s): Patch grafts with donor corneal rim or gamma-irradiated sterile cornea were observed as an effective surgical method to provide globe integrity and stabilize the ocular surface in corneal thinning and perforations that did not respond to other treatment modalities.

PP-18 LONG-TERM OCULAR SURFACE STABILITY IN CONJUNCTIVAL LIMBAL AUTOGRAFT AND OCULAR SURFACE STATUS IN DONOR EYES

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Purpose: To investigate the long-term outcomes of Conjunctival Limbal Autografts (CLAU) as a primary operation for limbal stem cell transplantation in patients with unilateral limbal stem cell deficiency (LSCD) due to various etiologies and the ocular surface stability in donor eyes with a follow-up ≥ 5 years.

Material and method: An observational retrospective review was performed on all patients who underwent CLAU as primary operation for unilateral limbal stem cell transplantation from 1998 to 2013. Main outcome measures were additional ocular surface stem cell transplantation (OSST) surgery, ocular surface stability, best-corrected visual acuity and ocular surface status in donor eyes.

Findings: 29 eyes of 29 patients with a mean follow-up period of 97.82 ± 34.45 months (range 60 to 186 months). Additional OSST surgery was necessary in 27.6% (8/29 eyes) to maintain a stable ocular surface. Ocular surface stability was achieved in 82.8 % (24/29) of eyes at last follow up. Keratoplasty was performed in 41.4 % of eyes (11 eyes underwent penetrating keratoplasty, 1 eye underwent deep anterior lamellar keratoplasty) as a sequential procedure for further visual rehabilitation. Repeated penetrating keratoplasty was performed on 2 eyes. At latest follow-up, best corrected visual acuity increased from 1.74 ± 0.84 to 0.81 ± 0.70 logMAR. In donor eyes; 28 eyes maintained a stable ocular surface, but one eye developed corneal ectasia and vascularisation at graft site with 1.51 LogMAR at final visit.

Conclusion(s): OSST can provide true long-term ocular surface stability and successful visual outcomes. With the advent of newer ocular surface transplantation methods, there has been concern that CLAU carries the theoretical risk of inducing LSCD. Our long-term clinical results following donor eyes after CLAU demonstrate signs of LSCD and ectasia in one eye.

PP-19 THE USE OF PARTIAL THICKNESS CORNEAL TISSUE TO RESTORE SCLERAL SURFACE PATHOLOGIES

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Purpose: To present the outcomes of partial thickness corneal tissue grafting over the sclera to restore scleral defects and to cover glaucoma drainage devices.

Material and method: This was a retrospective review of 4 patients (4 eyes). Partial thickness corneal tissue was placed over the sclera or over the glaucoma drainage device as a graft. Corneal tissue from a corneoscleral rim was used in 1 case and partial thickness corneal grafts that were prepared using a microkeratome was grafted in 3 cases. A combination of artificial anterior chamber and microkeratome system (ALTK System, Moria/Microtech Inc. Doylestown, PA, USA) was used to prepare the circular anterior lamellar corneal graft from a full-thickness cornea. The grafts were 300 to 350 µ thick with a diameter of approximately 9.00 mm. During the grafting, the grafts were cut and reshaped 1 mm larger than the denuded area.

Findings: The age of 4 patients (1 male and 3 females) ranged from 5 to 79 years. The minimum postoperative period was 6 months. Indications were scleral tissue loss due to limbal dermoid excision (n=2), and recurrent glaucoma surgery (n=1) and exposed glaucoma drainage device (n=1). No intraoperative complications were noted in any patient. Two patients underwent re-suturation due to loosening of sutures. None of the patients had graft infection, graft thinning, or immunologic rejection during the follow-up period. All of the grafts successfully integrated to the recipient tissue and epithelized. Smooths ocular surface was obtained over the grafts in all patients. All patients had improved appearance at the final visit.

Conclusion(s): Partial thickness corneal grafts have a favorable outcome as a patch for scleral tissue loss from different pathologies, which results in successful restoration of ocular surface and satisfactory cosmetic appearance. Although further large-scale investigation will be necessary to better define the grafts survival.

PP-20 BURSA YÜKSEK İHTİSAS EĞİTİM VE ARAŞTIRMA HASTANESİ RENAL TRANSPLANTASYON KLİNİĞİNDE NAKİL OLAN HASTALARA VERİLEN EĞİTİMİN ETKİNLİĞİNİN DEĞERLENDİRİLMESİ

Tülin Çelik, Özlem Çam, Esmâ Güler Tuncil

Sağlık Bilimleri Üniversitesi Bursa Yüksek İhtisas Eğitim Ve Araştırma Hastanesi

Purpose: Sağlık Bilimleri Üniversitesi Yüksek İhtisas Eğitim ve Araştırma Hastanesine bağlı transplantasyon kliniğinde böbrek nakli olan hastalara verilen eğitimin yaşam kalitesine etkisi araştırılmıştır.

Material and method: 2017 yılı Nisan ayında hizmete giren, Böbrek nakli kliniğinde nakil olan 20 hasta üzerinde uygulanan anket yöntemi ile elde edilen sonuçların istatistiksel olarak değerlendirilmesi yapılmıştır.

Findings: Ankete katılanların %70'i bayan, %30'u erkektir. %75'i 50 yaş ve altı, %25'i 50 yaş ve üzeridir. %55'i ilköğretim, %45'i lise ve lisans mezunudur. %60'ı evli, %40'ı bekaardır. %75'i 1-10 yıl, %25'i ise 11 yıl ve üzeri kronik böbrek yetmezliği hastası, %75'i 1-10 yıl, %15'i 11 yıl ve üzeri diyaliz tedavisi almış iken %10'u hiç diyaliz tedavisi almamıştır. %90'ı daha önce böbrek nakli olmamış, %10'da daha önce böbrek nakli olmuş fakat rejeksiyon olan toplam 20 hastanın; %40'ı nakil öncesi eğitim almış, %60'ı eğitim almamıştır. Nakil olan hastaların %100'ü nakil sonrası eğitim almıştır. Hastalarda nakilden önce böbrek hastalığı nedeniyle bir aylık dönemde hastaneye gelme sıklığı %60'ında 10 defa ve 10'dan az iken %40'ında 10 defadan daha fazladır. Nakilden sonra böbrek hastalığı nedeni ile bir ay içerisinde hastaneye gelme sıklığı; %40'ında 3 defa ve daha az, %60'ında 3 defadan fazladır.

Conclusion(s): Bu çalışmada elde edilen bulgular ışığında; hastaların herhangi bir sağlık kurumuna bağımlılığını azaltarak daha kaliteli bir yaşam sürdürebilmesi için nakil öncesi ve sonrasında kontrollü ve iyi bir eğitim programı yapılması gerektiği görülmüştür.

PP-21 COMBINED TRANSPLANTATION OF HEART AND LIVER - THE ROLE OF THE NURSE

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Purpose: Key words: transplantation, nurse, control, observation Slovenia-transplant is the central linking institution and the central coordinating office of the transplant network, operating since 1998. It enables the donor and recipient programs to function and ensures that all citizens have the right and access to treatment with transplantation (1). Organ transplantation is one of the most demanding professional and organizational procedures in modern medicine, which requires cooperation of the entire multidisciplinary team. Before, during and after organ transplantation, the nurse has an important role in a patients comprehensive treatment. Precise planning, implementation and evaluation of nursing care is important (2). After a combined heart and liver transplant, the patient was transferred to the Intensive Care Unit (ICU) intubated, mechanically ventilated with 100% oxygen and an addition of nitric oxide, sedated. An orogastric probe, a permanent urine catheter, two thoracic drains and several vascular catheters were inserted in the patient. The abdominal wound was covered with surgical compresses, he was treated with negative pressure (vacuum assisted closure - VAC). The patient received three-dose vasoactive support. He received massive transfusion of blood products. In the course of treatment, a decision was made to relieve the transplanted heart by extracellular membrane oxygenation (ECMO), to insert dialysis catheters and a temporary cardiac pacemaker. Before the patient is admitted to the ICU, a nurse prepares the bed unit, the devices for preventing pressure sores, and the apparatus. In preparing all the necessary medicines and fluids, the protocol of intensive treatment of a patient after transplantation is helpful, giving all the instructions regarding the taking of blood and microbiological examinations. Protective isolation instructions are followed. The following is monitored, measured and evaluated in the patient: basic haemodynamic monitoring with the presentation of life functions, extended haemodynamic monitoring (Lidco), liver function performance (Limon), state of consciousness and pupils. Sedation (BIS-bispectral index) and brain flow (NIRS- near infrared spectroscopy) are monitored. The presence of pain is assessed, operational wound, abdominal drainage and VAC activity are observed (3). The ECMO system is monitored and controlled (4). According to doctors instructions, a nurse prepares and applies infusion solutions and medicines that are highly risky, therefore double control is required in the preparation, calculation and administration of medicinal products, as well as the observation of possible adverse reactions to medicinal products. In patient treatment after transplantation, in addition to the knowledge of transplantation and intensive medicine, good professional communication in the team is of great importance.

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PP-22 THE INFLUENCE OF SOCIAL SUPPORT ON DEPRESSION AND HOPELESSNESS LEVELS IN PATIENTS AWAITING RENAL TRANSPLANTATION

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Purpose: Solid organ transplantation is the gold standard treatment especially in chronic liver and renal insufficiency (1). Heart and lung transplantation are rarely practised. In the near past with efficient immunosuppressive therapy, better estimation of survival and improved life quality in the posttransplantation period, solid organ transplantations have increased (2). However, still the number of prospective organ recipients is more than the organs donated. This situation leads to prolonged awaiting pretransplantation period. Recent studies indicate insufficient social support is associated with decreased treatment compliance and survival rates (9). Some transplantation centers define absence of social support as a contraindication for transplantation (10). The aim of this study is to define the relationship between social support and depression or hopelessness.

Material and method: This study is conducted between January 2016 and January 2017 in Cukurova University Transplantation Unit. Out of 657 prospective renal transplant recipients and 56 prospective liver transplant recipients 76 patients were included in this study. “Personal information form”, “Beck Depression Inventory”, “Beck Hopelessness Inventory” and “Multidimensional Scale of Perceived Social Support” were applied. Data were analysed with SPSS 24.0.

Findings: There was statistically significant positive relationship between Beck Depression Inventory and Beck Hopelessness Inventory ($p=0.000, r=0.619$). There was statistically significant negative relationship between data from multidimensional Scale of Perceived Social Support and Beck Depression Inventory ($p=0.000, r=0.465$) of the patients were female and 32 (42,1 %) were male. 20 (26,3%) had liver insufficiency and 56 (73,7%) had renal insufficiency.

Conclusion(s): Patients awaiting transplantation experience different problems both in pre- and post-transplantation period. These often leads to psychological problems such as hopelessness, depression and fear. During the transplantation process, emotional support increases therapy compliance and ability to cope with problems. Our study postulated that prevention of comorbid psychological abnormalities maintain higher life quality of organ recipients.

PP-23 PREPARING THE BACK TABLE AND NURSING PRACTICES IN ALIVE DONOR NEPHRECTOMY

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Purpose: Importance of nursing practices in transplantation of the kidney that was taken from alive donor until it transplants to the recipient

Material and method: Scrub nurse prepares the back-table before the kidney is taken out from the donor. Opening the surgical instruments and devices for the back-table. Scrub nurse prepares the back-table (surgical instruments , perfusion solutions , sutures). Shredded ice is put in the bowl , gauze pad is laid over the shredded ice for preventing the direct touch to the kidney. Perfusion solutions are surrounded by ice to preserve the cold chain. Before the perfusion set will be used, air in it is cleaned out. Progress of the surgical techniques effect the surgical nurse practice in terms of time. Kidney that was taken from the donor with help of endoscopic vascular stapler and endoscopic clips is put the bowl with full of ice as soon as possible. Tke kidney is cleaned with perfusion solutions . Kidney perfusion goes on until clear fluid comes out from renal vein . Perirenal fat tissue over the kidney and hilus are dissected.

Findings: Scrub nurses assist the surgeon in this stage therefore they must be experienced.

Conclusion(s): Kidney must be in cold chain to preserve the tissue damage until it will be transplanted. Experienced surgical nurse helps the patients and surgeons for confident operations and reduce the operation duration.

PP-24 RECIPIENTS PSYCHOLOGICAL PROBLEMS AFTER ORGAN TRANSPLANTATION AND THE NURSING APPROACH

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Purpose: Patients experience psychological problems like anxiety and depression due to various reasons after transplantation as before organ transplantation. Psychological problems after transplantation are experienced more in early period and decrease in late period after transplantation. However, there are studies that indicate that more than 50% of recipients undergoing renal transplant surgery undergo anxiety even after years of transplantation. Rejection and fear of death are among the first reasons for the psychological problems that arise in this process. In addition, the risk of infection, post-transplant follow-up, the expectation that they will have complete health after transplantation and continuation of treatment are the other factors that adversely affect patients. Furthermore, fear of going back to the hospital, the inability to express emotions, the thought that an organ belonging to someone else is now part of the own body and the change in the body image can cause psychological problems. Also, patients sexual dysfunctions, fear of divorce, lack of self-care, and lack of self-confidence negatively affect patients management of the transplantation process. These physiological, psychological and social difficulties experienced after transplantation can negatively affect patients quality of life. It is known that depression in patients after transplantation reduces treatment compliance, increase risk of rejection and decrease quality of life. In order to reduce the psychological problems experienced after the transplantation, it is important to perform the comprehensive psychiatric examination of the patient before the operation. It is also stated in the literature that detailed information on patients and their relatives related to the preoperative and postoperative period is effective in reducing the anxiety of the patients. In this process it is important that the nurse can effectively carry out the role of training. In order to be able to provide effective training, the nurse must have sufficient knowledge about the field of education, skills, equipment and particularly effective communication skills. Nursing care and education before and after the transplantation of the patient is very important in facilitating the process of adaptation to the transplantation, preventing complications and increasing the quality of life. In addition, nurses can help patients acquire the knowledge, skills, attitudes and behaviors necessary to become self-sufficient in their physical, psychological and social life. Also, the symptoms of anxiety and depression in the post-transplant period should be followed up by the health team and the team should be in solidarity. Also, when the symptoms are noticed, the application of appropriate medical treatment (anxiolytics, antipsychotics, etc.) and establishing a trusting relationship with the patient contributes to the prevention and treatment of the psychological problems experienced.

PP-25 NURSING ROLE IN THE PROTECTION OF DONOR S PSYCHOLOGICAL HEALTH IN ORGAN TRANSPLANTATION

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Purpose: Organ transplantation is an indispensable practice for patients with organ failure to increase their quality of life and often survive. Despite the fact that transplantation is preferred to perform from cadaver, the number of transplants made from live donors is increasing because of the rate of cadaver organ transplantation is low. In organ transplantations, it is important to assess the health of the recipient and psychological state of donor as well as the health of the recipient. In the literature review, it was determined that the studies investigating the post-operative quality of life and psychological status of living donors were limited. According to the studies, donors were found to feel well after transplantation and to improved sense of well-being and a boost in self-esteem. In similar studies, 90% of the donors stated that they could be donors again if needed. In addition to these positive feelings, it was determined that donors are more anxious than the recipients, donor suicides occur if recipients die, 4% donors are dissatisfied with their lives and regret for the transplantation, 34% of the donors had positive or negative changes in relationship with the recipient after the transplantation and those who had changed their relationship had returned to their previous relationship level after one year. It is expected that individuals who are healthy before transplantation will experience physical, mental and social problems after transplantation and their quality of life will be adversely affected. With appropriate nursing initiatives and education, donors can be less influenced by this process. Education increases satisfaction and reduces the cost of care and treatment. In this process, donors should be informed about the problems they may face due to organ donation and the patient should be informed about the rejection that may be seen after transplantation. The opportunity to explain the fear and concerns should be given to the patients. Besides, it should be determined whether or not the donor is sure of his/her decision, donor's psychiatric history and expectations from surgery. The contents of the education to be given to the patient should include the risk of death related to surgery, the changes in the life of the donor, the effect of surgery on work, family and social life, positive and negative situations that may be seen as a result of transplantation. Also, before the donor is discharged, education needs must be identified and discharge training planned in this direction.

Key Word: Education, psychological problems, donor, transplantation

PP-26 Care of elderly transplant recipients

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Purpose: The number of older patients with end-stage renal disease on the waiting lists for kidney transplantation is increasing rapidly worldwide. The elderly patients are more susceptible to transplant-associated complications due to age-related immune dysfunction and immunosuppressant agents. The growing numbers of elderly transplant recipients reveal the need for developing multi-dimensional evidence-based strategies for the improving the success of kidney transplant procedure. This review aims to summarize the care needs and interventions of elderly transplant recipients that improve the quality of life and prevent complications following kidney transplantation.

Material and method: The literature was reviewed to highlight the care needs of the elderly transplant recipients.

Findings: The risk of acute rejection among kidney transplant patients has been reported to decrease with increasing recipient age. However, the risk of developing chronic allograft nephropathy in elderly kidney transplant patients was reported higher, compared to younger kidney transplant patients. Elderly kidney transplant recipients encounter problems due to aging, surgical procedure and immunosuppression. Elderly transplant recipients face an increased risk of infection, increased risk of malignancies, and the higher incidence of chronic rejection. Comorbidities in elderly kidney transplants contribute to high incidence of transplant-associated perioperative complications and long-term negative outcomes. To manage successfully with the side effects of immunosuppression and decrease the likelihood of developing chronic allograft nephropathy, kidney transplant patients need psychological and social support and strategies for improving the adherence to medical regimen outcomes. The common nursing diagnoses among elderly kidney transplant recipients are at high risk of infection, impaired urinary elimination, self-care deficits, impaired tissue integrity, and pain. The close monitoring and family-patient education are crucial for the prevention of graft rejection, management of infections and malignancies associated with immunosuppression and improving the transplant outcome among elderly.

Conclusion(s): Nurses are required to prioritize the care needs of elderly kidney transplant recipients and to reinforce the personalized nursing care interventions for these patients. Despite the burden of comorbidities (diabetes mellitus etc.) among elderly kidney transplant recipients, the quality of life and transplant outcomes may improve through vigorous recipient selection, careful assessment, personal immunosuppression, and close monitoring.

PP-27 STANDARDIZED PATIENT APPLICATION IN TRANSPLANT PATIENTS

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Purpose: The terms standardized patient/simulated patient (SP) are often used interchangeably and refer to a person trained to portray a patient in realistic and repeatable ways. SPs interact with learners in experiential education and assessment contexts. SP presents with the same medical history and medical situation each time for each learners. Learners, depending on the context, are variously described as students, trainees, participants, examinees, or candidates. Standardized patients can also provide feedback on learner performance from the perspective of the person they portray, which is unique to working with SPs. In the rationale, SP-based education has grown in size and scope of practice to include many different roles. SPs provide realistic clinical experiences for the development of interpersonal and clinical skills. The purpose of using SPs is to assist in the education and evaluation of healthcare students, in a controlled setting.

Material and method: Case development: Example areas of studies for transplant patients can be health assessment interviewing skills, patient education strategies, communication and ethical dilemma skills, team collaboration skills, psycho therapeutic skills, skills are taught at a variety of levels-from basic to advanced.

Findings: Creating a scenario for transplant candidates and patients are inspired by real experiences and observations, examples of best practices and poor performances, standard scenarios for each participant, included all components of standard work, flexible scripts, piloted and refined with small group, scenarios designed to be as real as possible. Advantages of SP: Newly acquired attitude, practice and improve skills and knowledge SP intervention demonstrated a positive impact on therapeutic communication skills, particularly for students acting as the SPs Intervention promoted active learning and reinforced communication skills Reduces learner anxiety and eliminate risks (it does not put an actual patient at risk) Students gain confidence and a level of comfort with SPs before working with real patients Availability, repeatable experiences Educated feedback from the patient perspective Scenario subjects can be break the news to family about brain death, request donation, ethics in transplantation, evaluation donor and recipients, patient and family education students and nurse's education, communication skills (with patients, team members...), medication adherence, complications (depression, anxiety...) and teamwork...

Conclusion(s): Adults learn best when the actively engage in solving problems, are confronted with contradictions and uncertainty, solve problems of varying content and complexity, receive assessment & feedback on performance and self-reflect on their performance.

PP-28 LEGAL ASPECTS OF ORGAN DONATION : A SURVEY AMONG HEALTH PROFESSIONALS IN THE UNIVERSITY HOSPITAL OF CASABLANCA

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Introduction: Organ donation (OD) is one of the bravest acts of solidarity. Meanwhile, lack of information on the legal aspects of OD makes it difficult and even more for organ retrieval from dead brain donor. The objective is to assess physicians' knowledge about the legal aspect of OD in Morocco and the inscription in the donation register concerning people who accept to give their organs if they were victims of brain death.

Materials And Method: Health professionals from our University hospital were interviewed anonymously. Data was collected and analyzed with SPSS software. RESULTS: 273 physicians were interviewed with a mean age of 28,6yo. Women were predominant with a percentage of 69%. 37,5 % knew the law concerning organ donation in our country but no one is registered in the donation register. 61,5 % knew that organ retrieval can be processed only in authorized structures (public hospitals) and 87% knew that there is no financial compensation to OD . More than 50 percent of our population didn't know that we couldn't proceed to the organ retrieval from people with an unknown identity. 30,4 % from the interviewed thought that the decision to accept organ donation from a patient with brain death is dependent firstly from the parents then from the husband /wife. 51% ignored that the moroccan's law forbid the meeting between the donor's and the recipient's family.

Discussion: Our survey shows a real flaw in the physician's knowledge concerning the legal aspects of OD. Therefore, we have to undertake some measures in order to improve health professionals' knowledge. Seminars and courses can represent a good start because nurses and physicians have a duty in the implementation of a culture donation in our population. We also have to encourage the development financial and resource support for people donating or receiving organs.

PP-29 SOCIAL ATTITUDES, KNOWLEDGE AND PERCEPTIONS ABOUT ORGAN DONATION AND TRANSPLANTATION IN THE EASTERN AREA OF MOROCCO

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Introduction: Organ transplantation is a necessary and useful treatment for millions of patients worldwide. Unfortunately, in this area, Morocco lags far behind compared to the developed countries and even to Arab Ones. Several difficulties can hinder transplant process such as lack of equipment, lack of financial support, the non-compliance of patients and their relatives and a shortage of donor organs in a state of encephalic death.

Work Goal: The objective of the study was to describe and analyze the knowledge, attitudes and social perceptions of donation and organ transplantation in the Moroccan eastern area, and trying to understand what hinders the expansion of this activity.

Material And Methods: We conducted a study comparing 3 groups of people involved in the process of organ donation (doctors in training, law students and nurses) in the Moroccan Eastern region, through a self-administered questionnaire of 16 items related to knowledge, attitudes and social perceptions in our region.

Results And Discussion: Participation rate in our study was 71% with a female predominance (57% of women) and a majority of doctors in training (51%). 61, 9% of our participants had already heard about organ transplantation in Morocco but considered not having enough information on the subject. 57, 9% have positive opinion but show reluctance to organ donation. 46% agreed up on donating their organs while alive and 64,7% after their death. But 68% have never intended to be a donor. 50% indicated that their culture and their religion had influence on their choices and finally 51% knew the existence of the law governing donation and organ transplantation in Morocco.

Conclusion: Our results showed indeed an important number of potential donors but a lack of knowledge on the subject; need to set target actions in order to promote the donation and transplant in Morocco, and particularly in our region, to improve knowledge, to inform about the medical, religious and legal aspects and hence to make the attitudes and perceptions of the population evolve.

Knowledge about organ donation and transplantation			
	YES	NO	Without answer
"Do you know that the donation can be made from a living donor or a brain dead person?"	90%	10%	0%
"Do you know that you are an alleged donor to the extent that your family does not object after your death?"	67%	31%	2%
Knowledge of the existence of	51%	49%	0%

the law governing organ transplantation			
"Do you know the existence of a register of acceptance of organ donation"?	60%	39%	1%

Attitudes towards donation and organ transplantation					
	Unconditionally favorable	Favorable with reluctance	Unfavorable	Refused except for a family member	Without opinion
General position regarding donation of organs for transplantation	28,7%	57,9%	5,9%	—	7,5%
Reaction to organ removal from a first degree relative	31,3%	46,7%	11,5%	—	10,5
"Do you agree on the removal of your organs during your lifetime?"	46%	24,7%	14,1%	8,4%	6,8%
"Do you agree on the removal of your organs after your death?"	64,7%	17,8%	11,7%	1,8%	4%

Perceptions of organ donation and transplantation:			
	YES	NO	Without answer
"Have you ever considered giving?"	30%	68%	2%
"Do your culture or	50%	49%	1%

religion influence your choice?"			
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PP-30 ORGAN AND HUMAN TISSUES TRANSPLANT LEGAL ATTEMPTS DEVELOPMENT IN SUDAN

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Abstract: Sudan is an Afro-Arab country with a population of 40 million people and an area of 1 million km². Sudan was considered as among the pioneer countries in kidney transplant operations which started as early as the year 1974. In 1978 legalization of organ transplantation came to light by endorsing legal act called (Organ and Human Tissues Transplantation Law 1978). Many efforts was done towards update the 1978 law to meet the demand for organ donation by initiation of cadaveric donations The updating root to 1978 law was conducted by a number of committees to set the organ transplant procedures and to deal with organ transplant ethics. In addition to specialist committees; the Sudan Center for Organ Transplant was established in 2011. They succeeded in issuing the 2012 Organ and Human Tissues Transplantation draft, solving all confronting items. The only one issue which was not solved and didn't get the approval of parties was the determination of definition of brain death, from Islamic religion point of view and was placed in the hands of the Islamic jurisprudence council, but no feedback came. In 2017 the Federal Health Minister's Advisory Board, gave the approval to the updated 2012 draft to be finalized and to be submitted to the National Ministries Council regardless to the religious verdict (Fatwa). Authors of this article suggest that brain death defined by experts means body death and therefore eligible to organ/tissues donation. Expert opinion is convincing argument In addition to efforts of convincing religious leaders based on experience of other Islamic countries like Iran and Saudi Arabia

PP-31 KAPOSI SARCOMA AND LUNG INVOLVEMENT AFTER LUNG TRANSPLANTATION: CASE REPORT

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Purpose: To present a patient with chronic obstructive pulmonary disease (COPD) and underwent lung transplantation (LuTx) who developed Kaposi sarcoma (KS) 8 months later and rapidly progressive lung involvement.

Material and method: Case: A 58-year-old man with COPD underwent bilateral LuTx. For immunosuppression, basiliximab was given for induction and Tacrolimus, Mycophenolatemofetil (MMF) and Prednisolon for maintenance. A 3-month prophylactic valganciclovir and inhaled amphotericin B was also started. In the postoperative 8th month, a red-purple colored, maculopapular lesion, 1x1 cm in size was found under the left breast. Pathology confirmed the diagnosis of Human Herpes-Virus-8-positive KS.

Findings: Physical examination, systemic screening with upper gastrointestinal endoscopy, colonoscopy and PET-CT were performed and no distant organ involvement was detected. The lesion was locally excised. Tacrolimus and prednisolone were reduced in dose and MMF was discontinued. One month later the patient complained of shortness of breath. On physical examination, numerous, red-purple, 1-1.5 cm diameter vegetative lesions originating from the gingival mucosa were detected and on auscultation, coarse rales in bilateral lung bases. Thorax CT showed diffuse reticulonodular infiltration and bilateral pleural effusion. The incisional biopsy of the gingival lesion and transbronchial biopsy of lung lesions were reported as KS. The doxorubicin, bleomycin, and vincristine protocols have begun. Tacrolimus was shifted by Everolimus. Gingival and pulmonary lesions regressed after 4 cycles of chemotherapy (Figure 1-4). He is now at his twenty-second month after the LuTx, his KS lesions have been totally regressed and no relapse has been accounted.

Conclusion(s): Opportunistic infections and malignancies following LuTx cause considerable morbidity and mortality, because a higher dose of immunosuppression is administered after LuTx than the other solid organ transplantations. After LuTx, skin malignancies and lymphoproliferative diseases are the most common. KS, which is seen in immunosuppressed patients, is a tumor associated with HHV-8. After the kidney transplantation, KS can be seen with a rate of 6%, but it is rarely reported after LuTx. Therefore, there are patient-based experiences in the management of the disease when it occurs after LuTx. Reduction of immunosuppressive treatment and initiation of mTOR inhibitors are the first step and adequate in most cases. Surgical excision, chemotherapy, and radiotherapy are other treatment modalities. Chemotherapy should be started without delay. To our knowledge, there are data on the use of doxorubicin, but there is no data related to combined chemotherapy. New lesions in LuTx cases should be managed with suspicion, diagnosed properly and treated effectively as soon as possible.

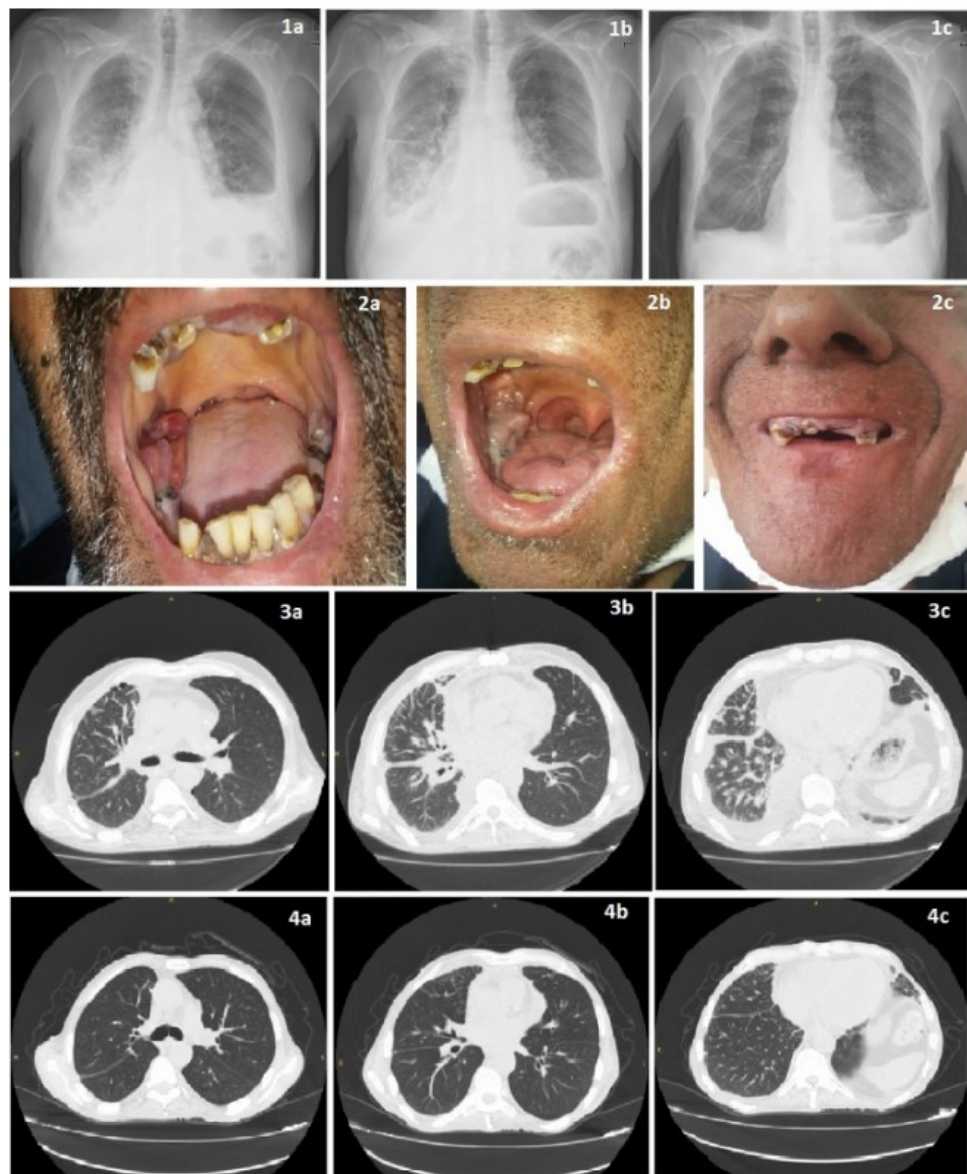


Figure Legends:

Figure 1. Lung radiography before chemotherapy (a), after 2 cycles of chemotherapy (b) and after 4 cycles of chemotherapy (c).

Figure 2. Gingival lesions before chemotherapy (a). Regression after 4 cycles of chemotherapy (b,c).

Figure 3. Lung lesions before chemotherapy are seen on computed tomography (a-c).

Figure 4. Regression of lung lesions after 4 cycles of chemotherapy (a-c).

PP-32 LUNG TRANSPLANT CANDIDATE WITH ERASMUS SYNDROME

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Purpose: Systemic sclerosis(SSc) is an autoimmune disease characterized by inflammatory, vascular and sclerotic changes with the involvement of the skin and internal organs. Although the etiology is not known precisely, it is thought that silica dust may cause some immunological changes leading scleroderma (Scl). The association of silicosis and scleroderma is called "Erasmus Syndrome" and is rarely seen. When the disease with Scl is made in lung transplantation, postoperative risk increases due to gastroesophageal reflux, renal insufficiency and skin fibrosis. However, studies have shown that transplantation can be successful with appropriate patient selection. We present this case hence Erasmus Syndrome is a rarely seen case and a suitable candidate for lung transplantation.

Material and method: A 24-year-old male patient with the diagnosis of silicosis was admitted for the evaluation of lung transplantation

Findings: The patient was dyspnoeic, oxygen dependent and had extensive body pain on physical examination. In the radiological imagings, common diffuse interstitial thickening in all zones and pleural fibrotic scarring constructions were present (Figure-1, 2). In routine examinations, ferritin, ANA, anti-ds DNA and SS-A elevations were detected. Patient consulted with hematology due to high ferritin levels and with rheumatology due to the extensive body pain and connective tissue marker height findings. There was no pathological finding in the esophageal pH manometry which was performed with the aim of evaluating esophageal involvement of SSc. The esophagus-gastro-duodenoscopy was found to have pangastritis; reflux and dysmotility were not detected. All other organ evaluations of the patient were suitable for transplantation. The patient who had silicosis diagnosis previously and is diagnosed with SSc is considered as Erasmus Syndrome. The patient was accepted as a lung transplant candidate because there was no esophageal involvement

Conclusion(s): There are no cases of erasmus syndrome undergoing lung transplantation in the literature. Pulmonary transplant indications are still controversial in patients with SSc. Although this disease is accepted as an indication for pulmonary transplantation in the ISHLT guidelines, it is considered to constitute a contraindication by many centers hence esophageal dysmotility and gastroparesis increase the risk of aspiration and reflux . However, the risk of mortality and morbidity in lung transplantation of the carefully selected Scl patients without extrapulmonary involvement is only the same as idiopathic pulmonary fibrosis patients. There was no esophageal dysmotility or gastroparesis in our detected Erasmus Syndrome case. For this reason, the patient was taken to the transfer list taking with the consideration of the other available findings.

PP-33 FUNGAL INFECTIONS IN LUNG TRANSPLANTATION: 4 CASES FROM A SINGLE CENTER LUNG TRANSPLANTATION(LUTX) CLINIC IN TURKEY

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Abstract: AIM:Fungal infections(FI) are a frequent complication in LuTx recipients,with one year cumulative incidence of 8.6%.We analyzed 4 cases of FI after LuTx. CASE 1:A 49-year-old male patient underwent LuTx due to IPF three years ago and underwent retransplantation due to CLAD(chronic lung allograft dysfunction).A.baumannia abscess developed along the clamshell line.After debridement and antibiotherapy, the infection has improved.On 35th day,while he was on prophylactic inhalation amphotericin B therapy,tracheobronchial aspergillosis(TBA) was diagnosed with laboratory and bronchoscopic findings.Minimal asymptomatic dehiscence was detected in the anastomosis site.Voriconazole therapy was initiated.Patient died due to sepsis and multi organ failure. CASE 2:A 30-year-old male patient who had a bone marrow transplantation 14 years ago due to ALL,underwent LuTx due to GVH(graft versus host) disease.While he was on prophylactic inhalation amphotericin B therapy,ulcerative TBA was diagnosed visually with FOB and A.fumigatus was isolated.Dehiscence formed in the anastomotic region.The patient died due to the increase of necrotic areas and dehiscence in the anastomosis site. CASE 3:A 61-year-old male patient underwent LuTx due to COPD 24 months ago.FOB was performed due to progressive decrease in FEV1 and BAL and transbronchial biopsy were obtained.Pulse steroid therapy was given upon detection of A1B1 rejection.2 months after rejection therapy he was hospitalized for fever.Micronodular infiltration was detected in the CT scan.A.fumigatus was detected in BAL culture.The patient was treated successfully with IV amphotericin B therapy. CASE 4:A 51-year-old male patient underwent LT due to IPF.The CT scan of the patient in 7th month revealed a 1-1.5 cm diameter nodular lesion in the right upper lobe apical segment.Nontuberculous mycobacterium (NTM) disease was diagnosed along with clinical,microbiological and radiological findings.On the 10th month,apical lesion has enlarged although he has been receiving treatment for NTM and has had negative AFB and culture results.FOB was performed again and positive culture results for P.aeruginosa and A.fumigatus were obtained.He is on 18th month and still followed up for cavitory lesion with NTM therapy and inhaler amphotericin therapy.

Conclusion:FI affect mostly LT recipients among all solid organ transplant recipients.It usually occurs in the first 3 months.The most common causes are aspergillus and candida spp. Aspergillus causes LuTx-specific TBA, anastomotic site infection, invasive aspergillosis and disseminated disease. Candida causes candidemia usually in the first 3 months. FI are also a risk factor for chronic rejection. TBA was rapidly progressive in 2 recipients receiving immunosuppressive treatment. Recipients under immunosuppressive treatment before lung transplantation, recipients with suspected CLAD, and recipients having other opportunistic infections should be examined more carefully for FI

PP-34 INCOMPATIBILITY OF BRAIN DEATH BETWEEN CLINICAL- ANGIOGRAPHIC COMPUTERIZED TOMOGRAPHY DIAGNOSIS

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Purpose: Brain death(BD) is defined as the total and irreversible cessation of all brain functions including those originating in the brainstem in a patient with a beating heart. BD is principally established using clinical criteria by national guidelines and laws in many countries. Confirmatory tests are either obligatory or auxillary and required in the presence of confounding factors(e.g., severe facial orbital trauma)

In the present study, we aimed to retrospective evaluate the incompatibility and time to diagnosis of brain death by clinical or computerized tomography angiograms(CTA).

Material and method: Twenty two patients who were assessed as brain death and CTA applied for certain diagnosis investigated. A 128-slice CT scanner (Somatom, Siemens, German) was used. Contrast medium injected in the brachial vein and imaging was done in the arterial phase.

Findings: The present study evaluated 14 male and 8 female patients. In males, the average of the clinical day of diagnosis was 4.2 and the mean of the radiological diagnosis day was 7. In females these ratios were 3.75 and 7.6.In 5 patients (2 males, 3 females), the clinical and radiological findings were not consistent for brain death diagnosis (22.72%). Looking at the diagnosis of these patients, blood flow monitoring in CTA suggests that they may be associated with hypoxia and skull fractures.

Conclusion(s): CTA has been suggested as a potential ancillary test for confirmation of brain death because of having several advantages over other ancillary tests. It is feasible, greater rapidly, non invasive, widely available, easy to assess, lower operator depended and seems to be a promising diagnostic alternative. Nevertheless the standardized diagnostic criteria for CTA in diagnosis of BD are not yet established and introduction of CTA as a reliable ancillary test cannot be recommended. In the case of skull defects, absence of the bone, intrcranial perfusion may persist despite irreversible loss of function of the brain. In such cases evaluation should be repeated, or irreversibility should be demonstrated by other methods. The ideal procedure for confirmation brain death would be universally available, as well as possessing high sensitivity and specifity.

In our opinion, delaying diagnosis of brain death results with losing of potential organ donors. This is a big loss for humanity. When clinically diagnosing brain death is incompatible with CTA , which range of intervals we have to be repeated or should we apply other methods to confirm the diagnosis are important topics. And these are big costs for developing countries like ours. There is an urgent need for more and more extensive studies to .clarify the issue

Table-1: Demographic datas and clinical-CTA diagnosis times of patients

MALE				
Age	Etiology	BD diagnosis day by clinical	BD diagnosis day by CTA	Clinical-CTA compliance
38	Subarachnoid hemorrhage (SAH)	2	4	+
15	Subarachnoid hemorrhage	10	12	+
66	Cerebellar hemorrhage	5	5	+
57	Subarachnoid hemorrhage	2	2	+
12	Traumatic subarachnoid hemorrhage	3	8	-

22	Subdural hemorrhage	6	11	+
60	Cardiac arrest	2	2	+
41	Subdural hemorrhage	1	3	+
44	Traumatic Subarachnoid hemorrhage	12	16	+
54	Traumatic Subarachnoid hemorrhage	3	8	+
25	Aneurysmal hemorrhage	3	5	+
9	Traumatic Subarachnoid hemorrhage	5	10	+
52	Intracranial hemorrhage	1	3	+
25	Cerebral Infarct	2	4	+
FEMALE				
<i>Age</i>	<i>Etiology</i>	<i>BD diagnosis day by clinical</i>	<i>BD diagnosis day by CTA</i>	<i>Clinical-CTA compliance</i>
73	Subarachnoid hemorrhage (SAH)	2	7	+
77	Subarachnoid hemorrhage	7	16	-
34	Cardiac arrest	3	11	+
55	Subarachnoid hemorrhage	2	3	+
47	Pulmonary embolism	3	3	-
39	Cardiac arrest	3	4	-
75	Intracranial hemorrhage	2	4	+
69	Intracranial hemorrhage	6	11	+

PP-35 UNEXPECTED INTRACARDIAC THROMBUS DETECTION WITH TRANSESOPHAGEAL ECHOCARDIOGRAPHY (TEE) DURING LIVER TRANSPLANTATION

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Abstract: Intracardiac thrombus formation during liver transplantation can be a life-threatening complication. Transesophageal echocardiography (TEE) considered as valuable and useful tool for both monitoring intraoperative hemodynamic status and detection of such complications. We report a case of an unexpected intraatrial thrombus formation detected just after the anesthesia induction with TEE, which can not be detected with transthoracic ecocardiography (TTE) before the operation. We aim to widen our perspective with this case report, to make TEE utilization may be counted as a gold standart for anesthesia management in liver transplantation cases and for preoperative assessment in liver transplant candidates with cardiovascular risk factors.

PP-36 DO RECIPIENTS OF GENETICALLY RELATED DONORS HAVE BETTER OUTCOMES AFTER LIVE DONOR LIVER TRANSPLANTATION?

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Purpose: While HLA matching between donor and recipient in solid organ transplantation has a beneficial role in kidney and heart transplantation, its role in liver transplantation is controversial. As there is little data on this, we compared outcomes of living donor liver transplant (LDLT) between recipients of genetically related and unrelated donors.

Material and method: The study included 1372 adult, ABO compatible, primary LDLT recipients from June 2010 to April 2017, who received a graft from either a first degree relative (parent, sibling, child; n=756) or unrelated donor (spouse or relative of spouse; n=616). Immunosuppression protocol consisted of Calcineurin inhibitors, Mycophenolate and short-term steroids. Ideal graft to recipient weight ratio was >0.8%, but lower GRWR upto 0.6 was accepted in good risk patients, with portal inflow modulation. Macrovesicular steatosis of up to 20% and 30% was accepted for left and right lobe grafts respectively. The mean follow up was 37 (15-95 months).

Findings: The mean age of recipients with related donor was 50.2years±10.8 vs unrelated donor 47.3±9.3(P=0.000). The donors in genetically unrelated group were older (36±9 versus 31±10years, p=0.000). There were significantly more females in the genetically unrelated group (67.1% versus 47.6% p=0.000). There was no significant difference in the proportion of right to left lobe grafts among unrelated and related groups (605/11 versus 741/15; p=0.78). Chronic rejection was significantly more common in the genetically unrelated compared to the genetically related group [28 (4.5%) versus 9 (1.1%); p=0.000]. However, there were no significant differences in the incidence of acute cellular rejection, biliary strictures, CMV viremia or vascular complications between 2 groups. The 12 month, 36 month survival among the unrelated and related groups was 87.6%, 86.3% and 90%, 89.7% respectively (p=0.20).

Conclusion(s): Although chronic rejection was found to be more common in genetically unrelated donors, the eventual outcome after LDLT was similar between genetically related and unrelated donors.

PP-37 OUR EXPERIENCES IN LIVER TRANSPLANTATION

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Purpose: The aim of this study was to analyze short- and long-term results of liver transplantation (LT) in University Clinical Center Tuzla, Bosnia and Herzegovina.

Material And Methods: From year 2006 until 2018, 19 patients underwent LT at our center, and two LT have been performed in centres outside our country. The main indication for LT was post-necrotic cirrhosis, followed by hepatocellular carcinoma in cirrhosis. Postoperative courses have been controlled in the Clinical Center Tuzla. The first orthotopic liver transplantation (OLT) was performed September 2006 in Clinical Center Tuzla with the expert help of colleagues from the Clinical Center Merkur, Zagreb, Croatia.

Results: During our first OLT transplantation and liver donor LT, we teamed with supervising colleagues from Zagreb. We performed our first OLT without supervision in May 2008. We have performed 19 LT: 18 cadaveric and 1 live donor. The youngest patient was eighteen years, and the oldest patient was fifty-nine years old. The mean age was forty-three years. Major early complications were: bleeding from vascular anastomosis, biliary leak, hepatic artery thrombosis, right pleural effusion. Late postoperative complications were: portal vein stenosis and biliary anastomosis.

Conclusion: Further efforts to be taken in our center are: popularization of transplant programs (seminars, educational courses), intensifying the work of donor network, continuous education of the transplant teams, improvement of the surgical technique, cooperation with regional centers and membership in the Eurotransplant.

PP-38 DONOR HEPATECTOMY: SINGLE CENTER EXPERIENCE

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Purpose: Donor hepatectomy for live liver transplantation is widely used, especially in countries with a worldwide lack of cadaveric donors.

Material and method: A total of 64 donor hepatectomies have been performed at Gazi University Transplantation Center since 2006. All data were collected retrospectively from hospital charts. The first step in donor evaluation is whole blood tests, viral load, blood group analysis. Later, all donors evaluate the transplantation surgery, gastroenterology, pulmonary, cardiologic and psychiatric teams. Then, MR cholangiography(MRC) is performed with 3D celiac CT angiography to evaluate the hepatic vascular anatomy. If MRC is not satisfactory, intraoperative cholangiography was performed.

Findings: Of the 64 live liver donors, 38 were female and 26 were male subject. Among 64, there were first degree 34, second degree 23, third degree 5 and non-relatives 2 were identified. The mean age of the donor was 33.6 ± 7.5 years (range 21-52 years). The mean BMI of the donor was 27.2 ± 1.9 (median 27). Donor hepatectomy was performed as 23 right, 23 left, and 18 left lateral lobectomy. The mean liver volume for right hepatectomy was $33.8 \pm 4\%$ (median 35%) and the right lobe median graft-recipient body weight ratio 1.7% (0.9-1.5%) and mean intraoperative blood transfusion 1.2 ± 1.4 U (0- 10). The duration of the stay of the donors in the median was 9 days (6-28). Early surgical complication (bleeding) was detected in only one patient in the III grade Clavien system. This patient was immediately re-explored. The left gastric artery was found to be bleeding (operation was LL segmentectomy, bleeding source was artery of this LGA stump) and after uneventful early postoperative follow-up, he was discharged in postoperative D7. Cholangitis developed at another donor after surgery. The donor received antibiotic therapy and was discharged without any problems. We have not seen any mortality in this study group. All patients are doing well without any problem.

Conclusion(s): We believe that donor safety is the first priority for all live donor programs.

PP-39 EFFECTS OF THE SPLENIC ARTERY LIGATION ON THE POSTOPERATIVE OUTCOMES IN THE PATIENTS WITH LIVING DONOR LIVER TRANSPLANTATION

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Abstract: Purpose: Different studies have shown the importance of portal venous flow in the development of liver failure after living donor liver transplantation (LDLT). This may also affect the biliary anastomosis. Several strategies have been proposed to modulate portal inflow using several pharmacological or interventional methods including splenic artery ligation (SAL). In this study, we aimed to investigate whether SAL does affect the postoperative outcome.

Methods: Between January 2016 and January 2018, data collection from prospectively established database of the liver transplant patients included demographic features, preoperative laboratory values, surgical data, postoperative morbidity and mortality. The patients who fit at least one of the following criteria were performed SAL and included into the study. Criteria were as follows: portal flow over 250 ml/100gr/ min, GRWR $\leq$ 0.8 and no drainage of anterior sector. Patients who fit the criteria were enrolled into the study and divided into two groups regarding whether SAL was performed (SAL1) or not (SAL0) during LDLT.

Results: There were 124 patients in SAL0 and 53 patients in SAL1 group. Regarding preoperative details, Child score and MELD was higher in SAL1 group whereas hemoglobin, platelets and albumin were significantly lower. Although the GRWR was similar between groups 1.24 and 1.16 in SAL 0 and SAL1, respectively, the rate of GRWR $\leq$ 0.8 was significantly higher in SAL1 group (21% vs 39%, p=0.017). Intraoperative hemorrhage (501cc vs. 700 cc, p=0.025), postoperative bilirubin (2.7 vs. 4.7, p=0.021) and the rate of postoperative persistent ascites (29% vs 54%, p=0.002) were significantly higher in SAL1 group. No patient was diagnosed with small-for-size syndrome. Postoperative hospital stay, overall and biliary complications and mortality were similar between groups.

Conclusion: Although the patient with higher MELD was more common in the SAL1 group, overall postoperative morbidity and mortality were not affected. This can be attributed to the SAL during LDLT that could improve the portal flow, which provide liver regeneration and reduced complication rate in the postoperative period.

PP-40 CAP/PNPLA3 FOR ASSESSMENT OF NAFLD POST LDLT FOR HCV PATIENTS

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Purpose: Non-alcoholic Fatty liver disease (NAFLD) is evolving in living donor LT (LDLT) recipients. Patatin-like phospholipase domain containing protein 3 (PNPLA3) polymorphism represent a risk factor for NAFLD development. Controlled attenuation parameter of transient elastography (CAP-TE) is a promising tool in detecting liver steatosis. Our aim is to assess the accuracy of CAP-TE in detecting NAFLD and the predictive value of PNPLA3 polymorphism on NAFLD course; in LDLT recipients.

Material and method: This is a cross sectional study conducted on 40 LDLT recipients treated for HCV recurrence. They were divided into two groups; no-steatosis group (20 subjects), and steatosis group (14 subjects with steatosis stage 1 and six with stage 2). CAP-TE and PNPLA3 polymorphism were studied in both groups versus histopathology findings.

Findings: There was male predominance, mean age 51.9 years, median time since LT was 58.6 months. In detecting steatosis, CAP TE showed best cut off ≥ 231 dB/m at which sensitivity, specificity and accuracy were 90%, 70% and 74.4%, respectively, while G-allele genotype of rs738409 PNPLA3 showed sensitivity, specificity and accuracy 70%, 20% and 31%, respectively, predicting steatosis.

Conclusion(s): CAP TE is accurate for graft steatosis assessment post LDLT, while, PNPLA3 is not accurate for graft steatosis prediction.

PP-41 EVALUATION OF THE FIRST LIVER TRANSPLANTATIONS IN OUR TRANSPLANT CENTER EXPERIENCE

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Purpose: Orthotopic liver transplantation is life-saving in patients with end-stage liver failure. However, infections and acute rejection are the most important causes of morbidity and mortality.

Liver transplantation in the treatment of liver failure has begun to be implemented for the first time in Pamukkale University Medical Faculty Health Research and Training Hospital, and the results of liver transplants are shared in this report.

Material and method: A total of four cadaveric donor liver transplantation cases were evaluated prospectively. Patients sex, etiology of liver failure, Child and MELD score, blood transfusions, hospital stay, and infectious complications detected after transplantation were examined.

Findings: One of the patients was male, three were female. Surgical prophylaxis was performed for a maximum of 48 hours. All of the trimethoprim / sulfamethoxazole and acyclovir profilaxis were initiated within the first 10 days after transplantation. The standard immunosuppressive treatment protocol was identified as is tacrolimus, mycophenolatemofetil and methyl prednisolone for the first three months after transplantation. The demographic, laboratory and clinical characteristics of the patients are presented in table 1. The mean age was 56 ± 10.4 years and the mean MELD score was 13.2 ± 2.6 . The mean follow-up period of the patients was 14.7 ± 10.1 days. One of the patients died of post-op 3 days because of reperfusion syndrome.

Conclusion(s): New liver transplantation practices in our country will make many diseases that cause liver failure become treatable as in our transplant center. The duration of hospital stay, intensive care unit stay, invasive interventions, blood transfusions, immunosuppressive treatments cause an increased risk of infection in these patients and high mortality is seen despite antibiotic treatment.

Table 1. Demographic and clinical characteristics of liver transplant patients

Patient Characteristics	Case 1	Case 2	Case 3	Case 4
Sex/age	Female/42	Female /63	Male/65	Female /54
MELD	17	12	11	13
Child-Pugh A B C	C 12	B 9	B 10	B 8
Endication	NASH	NASH	Cryptogenic liver cirrhosis	NASH

Comorbid diseases	DM+HT	DM+HT+CAD	DM	DM+HT
Donor charecterization	Cadaveric	Cadaveric	Cadaveric	Cadaveric
Operation time / hour	7	6	8	7
Reoperation/postop. day	None	Femur fracture/postop 82. day Biliary leakage /postop 94. day	Hepatic artery thrombosis /postop 1.day	None
Blood transfusion (U)	16	2	8	17
Hospitalization day	10	9	10	28
Intensive care unit stay day	1	1	1	2
Postop infections/day	Pneumoni/postop 2.day	Urinary tract infection	None	None
ALT/AST levels during infection	219/475	9/10		
WBC level during infection	7840	19980		
CRP level during infection	6,7	37,5		
Tacrolimus level during infection	4,3	10,7		
Antibiotic regimen	Piperacillin tazobactam	Meropenem+Teicoplanin		
Survey	Cure	Cure	Cure	Exitus

**MELD: Model for end stage liver disease, NASH: Non alcoholic stetaohepatitis, DM:Diabetes mellitus,
Hypertension, CAD: Coronary artery disease :HT**

PP-42 PHYSICIAN-GUIDED IMMUNOSUPPRESSANT DOSE MINIMIZATION IN LIVER TRANSPLANTED MONGOLIAN PATIENTS.

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Introduction: Liver transplantation is a safe and effective treatment with 80-90% 5 year life expectancy. However, long term use of immunosuppressive medication causes severe side-effects. This can be mitigated by a physician-guided immunosuppressant minimization. Main complication of low tacrolimus is the acute rejection caused by insufficient immunosuppression. We aimed to lower the tacrolimus through level to a possible lower level while surveilling for possible rejection.

Methods: 67 adult patients who received liver transplants due to viral hepatitis, who on 1st of July, 2017 survived 1 year or longer; except for possible non-alcoholic steatohepatitis (NASH), showed stable liver function tests; had no tumor recurrence; received no retransplantation and were on tacrolimus while not receiving additional immunosuppression. The patients had tacrolimus blood through levels measured and oral dose lowered where possible from July of 2017 $\pm$ one month and June or July of 2018. Acute rejection was surveilled by unexplained deterioration of liver function tests. NASH was defined as ALT level increase not more than the double the upper .limit of normal

(SEM $\pm$ 1.26, mg/day 3.24 :Results: Oral dose and blood through levels in 2017 and 2018 were, respectively (SEM $\pm$ 1.46, n=46). ml/ng 65.(SEM $\pm$ 1.23, n=46), 4 mg/day 2.87 n=67) and ,86.SEM $\pm$ 1) ml/ng n=67), 5.31 ALT and AST, on given dates were 24.24 IU/ml .(0.03>Tacrolimus through level decreased significantly (t-test, p (SEM $\pm$ 15.50) and 19.65 IU/ml (SEM $\pm$ 7.82) vs. 27.09 IU/ml (SEM $\pm$ 13.46) and 22.57 IU/ml (SEM $\pm$ 8.83), respectively. No statistically significant liver function test alteration and no biopsy-proven acute rejection was detected

Conclusion Physician-guided dose reduction has significantly lowered the blood tacrolimus through levels and .was safe in terms of graft function

PP-43 POSTOPERATIVE MYOCARDIAL INJURY DOES NOT PREDICT EARLY AND ONE-YEAR MORTALITY AFTER LIVING DONOR LIVER TRANSPLANTATION

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Purpose: Preoperative cardiac troponin-I (cTnI) elevations has been shown to be a predictor of mortality after orthotopic liver transplantation. Myocardial injury after non-cardiac surgery(MINS) has been defined as elevation of serum cardiac troponin levels in the perioperative period which does not fulfill the criteria for myocardial infarction. MINS has been shown to be a prognostic factor for in-hospital and long-term mortality, but there is limited data in patients undergoing living donor liver transplantation (LDLT). In this study, we aimed to evaluate the relationship between MINS and postoperative mortality.

Material and method: Patients who had undergone adult LDLT at Florence Nightingale Hospital Liver Transplantation Unit between December 2012 and December 2015 were retrospectively analyzed for 30-day in-hospital and 1-year mortality. The exclusion criteria were: 1) patients under 18 years old; 2) patients undergoing deceased donor liver transplantation or dual liver-kidney transplantation; 3) cTnI elevation due to other causes (sepsis, renal failure, pulmonary embolism); 4) patients without postoperative troponin levels. Myocardial injury was defined as cTnI level above 0,04 ng/mL according to 99th percentile reference limit. Patients (n=214) were divided into two groups according to postoperative cTnI levels: 1. elevated (> 0.04 ng/mL) 2. normal (< 0.04 ng/mL).

Findings:

Table 1. Baseline characteristics of the study groups.

	Myocardial Injury (n=123)	Non-myocardial Injury (n=91)	p
Female (n/%)	38 / 30.9%	19 / 20.9%	0.068
Age (years)(mean±SD)	51.33 ± 10.44	52.65 ± 10.97	0.371
MELD-Na score (mean±SD)	15.76 ± 5.52	16.10 ± 4.39	0.634
Creatinine (mg/dL) (mean±SD)	0.80 ± 0.22	0.83 ± 0.27	0.381
Diabetes Mellitus on insulin (n/%)	17 / 13.8%	18 / 19.8%	0.244
Hypertension (n/%)	9 / 7.3%	3 / 3.3%	0.168
Ischemic Heart Disease (n/%)	2 / 1.6%	4 / 4.4%	0.405
30- day mortality (n/%)	5 / 4.1%	4 / 4.4%	0.582
1- year mortality (n/%)	7 / 5.7%	7 / 7.7%	0.558

MELD-Na, model for end stage liver disease with Sodium

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MINS occurred frequently in 123 (57.4%) patients after LDLT. There was no difference between the groups according to age, gender, creatinine levels, presence of ischemic heart disease, hypertension, diabetes mellitus on insulin therapy (Table-1). The presence of MINS did not predict either 30-day or 1-year mortality in the study

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MELD-Na, model for end stage liver disease with Sodium

Conclusion(s): Myocardial injury detected by serum cTnI elevation was frequent after LDLT, however it was not associated with 30-day in-hospital and 1-year mortality.

PP-44 THE EFFECT OF PRETRANSPLANT INFECTIONS TO CLINICAL OUTCOME IN LIVE DONOR LIVER TRANSPLANT RECIPIENTS

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Purpose: Due to impaired immune function, surgical procedures and multiple hospitalization episodes, patients with end-stage liver disease are under the risk of numerous infectious complications while waiting for transplantation. Infection in transplant recipients remains the main cause of mortality and morbidity, despite advances in surgical techniques and development of new repressive agents. The purpose of this study is to examine the infections which develop pretransplantation period in live donor liver transplant recipients and their effect on posttransplant clinical outcomes.

Material and method: The retrospective analysis of adult live donor liver transplant recipients in last 4 years was conducted at Ankara University Hospital, a 1900-bed tertiary care university hospital, in Ankara, Turkey. Demographic characteristics, preoperative infections and clinical outcomes were analysed. Patients were divided into 2 groups according to whether they had infected prior to transplantation. The diagnosis was based on clinical, laboratory and microbiological findings. Statistical analysis was performed using SPSS version 13.0 (IBM SPSS Statistics) and P values <0.05 were considered statistically significant.

Findings: recipients, 21 patients (%28) had 24 episodes of infectious complications before liver transplantation; consisted of urinary tract infection (UTI), spontaneous bacterial peritonitis (SBP), pneumonia and upper respiratory tract infections (URTI). Gram-negative bacilli, including *Escherichia* and *Klebsiella spp.*, were the major pathogens of UTI, and gram-positive cocci, primarily *Enterococcus* species were the major pathogens of SBP. URTI were mostly due to viral pathogens. All 24 infectious episodes occurred within 1 month before transplantation. Among 21 patients with infectious complications, 8 (38.09%) experienced 9 episodes of bacteremia, and the most common pathogens were *K. pneumoniae*, *Acinetobacter baumannii*, and *Enterococcus faecium*.

Demographic characteristics were not significantly different but recipients with pretransplant infections had Recipients with infections had .than those without infections higher Model for End-Stage Liver Disease scores and bacteremia and hospital stays and more posttransplant infections significantly longer posttransplant ICU .(p=0.015) . There was no significant difference in rejection and 1-year mortality between the 2 groups (p=0.61)

Conclusion(s): Our study showed the effect of pretransplantation infections on posttransplant morbidity but not on rejection or mortality. According to the situation of patients, manageable pretransplantation infection will not be an absolute contraindication to liver transplantation. Awareness of the increased risk for posttransplant infections and fast-acting antimicrobial coverage, are the most important facts for patient survival.

PP-45 PROGNOSTIC ROLE OF GADOXETIC ACID-ENHANCED MAGNETIC RESONANCE IMAGING PATTERNS OF HEPATOCELLULAR CARCINOMA TREATED BY LIVER TRANSPLANTATION

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Florence Nightingale Hospital, Liver Transplantation Institute

Abstract AIM: To evaluate the prognostic value of pretreatment gadoxeticacid-enhanced magnetic resonance (MR) images in the patients with hepatocellular carcinoma (HCC) treated by liver transplantation (LT).

Methods: The data of 51 patients (F/M:7 / 44, mean age 57 ± 11 years) with HCC were reviewed and those who underwent gadoxetic acid-enhanced MR before LT for HCC (n=28) was retrospectively analyzed. Two abdominal radiologists were independently and blindly evaluated the imaging patterns of HCC according to enhancement patterns on late hepatobiliary phase (HBP) images. Regarding the imaging patterns (hypo-intense or hyperintense), comparative analysis was done between those with recurrence or not.

Results: Mean follow-up period was 15.5 ± 5.8 months. In the follow-up period, only seven patients were diagnosed with recurrence. Of these patients only one was detected with hyper-intense tumor pattern while remaining were with hypo-intense images. The rate of hypo-intense tumor imaging pattern in patients with recurrence (n=8) was significantly higher when compared with no recurred patients (n=20) (20% and 87%, respectively, $p=0.001$).

Conclusion: Hyper-intensity on HBP images may be a useful to indicate longer RFS after surgery. Gadoxeticacid-enhanced magnetic resonance (MR) images in patients with hepatocellular carcinoma treated by liver transplantation (LT) can be beneficial to predict the patients' recurrence and survival.

PP-46 A CHANGING ETIOLOGIC SCENARIO IN LIVER TRANSPLANTATION: A SINGLE CENTER COHORT STUDY FROM TURKEY

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Purpose: Non-alcoholic fatty liver disease (NAFLD) is an increasing cause of liver transplantation (LT) worldwide, especially in Europe and North America (LT). In this study, we aimed to investigate changing pattern of etiologies in LT during the last 15-year in our center.

Methods: A cohort of 967 consecutive adult LT patients between 2004 and 2018 in our center was reviewed regarding etiologies for LT. Different three periods including years 2004-2009, 2010-2013 and 2014-2018 were considered for comparative analysis. Etiology of liver disease was confirmed in the explant liver. **RESULTS:** Chronic hepatitis B infection was the leading cause of LT in the overall cohort (37%), followed by HCV (11%) and alcoholic liver disease (9,5%). NASH and cryptogenic cirrhosis accounted for 7.5% and 13%, respectively. While HBV decreased from 44% in 2004-09 to 36% in 2014-18, NASH increased from 1.1% to 9.4% during the same period, accounting for the fourth cause of LT following HBV, HCC, cryptogenic cirrhosis.

Conclusion: There might be a global changing figure regarding etiologies for LT in Turkey, especially NASH that is the fastest growing cause of LT. However, this topic needs to be evaluated in large cohort series from collaborative multicenter studies from Turkey.

PP-47 UNEXPECTED INTRACARDIAC THROMBUS DETECTION WITH TRANSESOPHAGEAL ECHOCARDIOGRAPHY (TEE) DURING LIVER TRANSPLANTATION

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Abstract: Intracardiac thrombus formation during liver transplantation can be a life-threatening complication. Transesophageal echocardiography (TEE) considered as valuable and useful tool for both monitoring intraoperative hemodynamic status and detection of such complications. We report a case of an unexpected intraatrial thrombus formation detected just after the anesthesia induction with TEE, which can not be detected with transthoracic ecocardiography (TTE) before the operation. We aim to widen our perspective with this case report, to make TEE utilization may be counted as a gold standart for anesthesia management in liver transplantation cases and for preoperative assessment in liver transplant candidates with cardiovascular risk factors.

PP-48 NOVEL APPLICATION OF INTERNAL-EXTERNAL DRAINAGE CATHETER AS BILIARY STENT FOR PERCUTANEOUS TRANSHEPATIC TREATMENT OF BILIARY STRICTURES IN LDLT RECIPIENT PATIENTS

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Purpose: Although endoscopic management is considered as the first-line treatment for biliary strictures, it may be challenging in LDLT recipients due to the complex nature of the duct-to-duct reconstruction. Percutaneous interventional approach might be an alternative strategy in these patients. In this study we aimed to present usage of pigtail drainage catheter as biliary stent for treatment of biliary stricture after LDLT.

Material and method: Twenty-seven patients with biliary stricture were treated with our novel technique. In this technique, an internal-external catheter was trimmed into three parts as proksimal, mid, and distal portion. Distal trimming site was the tip of catheter. The proksimal trimming site was adjusted based on the measurement of the relevant biliary tract length. A suture string was passed through distal hole of mid portion. Mid portion was reversed and used as stent, proximal portion was used as a pusher. Following balloon dilation of the stenotic segment, distal, reversed mid, and proximal portions were loaded over the guidewire. Suture string was used to retract the stent for favorable manipulation and placement at the desired site. After proper placement of the stent, retractor suture string, the pusher and guidewire were removed. The tip was dropped into the duodenum lumen during procedure. The stent was removed at 3rd or 4th month of placement through ERCP in all patients.

Findings: No significant complications developed during the procedure and follow-up period. Ten patients required re-stenting by ERCP at the same session. The mean follow-up period was two years. Cholestase enzymes and bilirubin levels were within normal limits in all patients during follow-up.

Conclusion(s): Stent derived from drainage catheter facilitates treatment of biliary strictures in patients not eligible for the retrograde approach. This stent is cheap and easy to implement and can also be easily removed by ERCP and re-stenting can be applicable retrogradely if needed.

PP-49 IMPORTANCE OF OTORHINOLARYNGOLOGY CONSULTATION BEFORE LIVER TRANSPLANTATION

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Purpose: The aim of this study is to assess preoperative and postoperative otorhinolaryngologic findings in liver donors and recipients and to develop an algorithm for preoperative evaluation of liver transplant patients.

Material and method: Medical records of 183 patients were retrospectively reviewed. There were 84 living donor liver recipients (LDR), 15 cadaveric liver recipients (CDR) and 84 donors between 2014-2018 at our tertiary care academic medical center. The demographic features, screening and treatment methods of the patients were evaluated statistically by evaluating symptoms, otorhinolaryngologic examination findings and radiological examination results before surgery.

Findings: Of the 183 patients included in the study, 73 (39.8%) were female and 110 (60.2%) were male; the mean age was 41.2 (1-73, $\pm$ 15.1). Sixteen patients who have no preoperative otorhinolaryngologic evaluation were excluded from the study. Eleven patients (6.58%) presented symptoms and 20 (11.97%) had infection findings during physical examination. There were infectious complications (upper/lower respiratory tract infections and sepsis) after transplantation in 5 of 84 (5.95%) LDR patients; 3 of 15 (20%) CDR patients and 1 of 84 (1.19%) liver donors. Preoperative paranasal sinus computed tomography images (PNS CT) were reviewed: 42 of 154 (27.27%) had findings of sinusitis. Out of these 42 patients 8 (19.04%) had sinusitis-compatible findings during physical examination, whereas out of 20 patients which had infectious findings on physical examination; only 13 had sinusitis-compatible findings on PNS CT images. Functional endoscopic sinus surgery (FESS) was performed in 9 patients and medical treatment was given to 24 patients who had findings of sinusitis on physical or radiological examination. In 2 of the 8 transplant recipient patients who had airway infection after transplantation, sinus infection has been detected and FESS has been performed before transplantation. Therefore, sinuses of these patients were clean on the nasal endoscopy that was done after transplantation.

Conclusion(s): Preoperative otorhinolaryngologic evaluation to find out any risk of infection in liver transplant patients plays important role in the prevention of postoperative upper and lower respiratory tract infections. Detailed medical history and nasal endoscopic examination are very useful in determining possible focus of infection in this patient group. Furthermore, radiological evaluation of patients with risk factors is important to confirm the presence of infection, especially sinusitis, and to make patients infection free before liver transplantation.

PP-50 HEPATITIS B SURFACE ANTIGEN RELAPSE AFTER LIVING DONOR LIVER TRANSPLANTATION IN HEPATOCELLULAR CARCINOMA PATIENTS WITH HEPATITIS B AND HEPATITIS D VIRUS MAY INVITE HEPATOCELLULAR CARCINOMA RELAPSE

Adil baskiran, tevfik tolga sahin, volkan ince, serdar karakas, kendal yalcin, sezai yilmaz

1. Inonu university, liver transplantation institute, department of general surgery, malatya-turkey

Purpose: HBV and HDV are the two major viral etiologies that cause chronic liver disease and hepatocellular carcinoma (HCC). In the present study, we aimed to evaluate HCC recurrence patterns in patients with HBV and HDV infection.

Material and method: One hundred-fifty two patients with HBV (n=127,[84%]) or HBV+HDV (n=25, [16%]) related HCC that received LDLT in our institute were included in the study. Demographic data and tumor related characteristics such as Milan criteria, tumor and HBV recurrence was evaluated.

Findings: The median age of the patients was 55 (23-72) years. The two groups were similar in terms of demographic characteristics. Body mass index of the HBV+HDV group were lower than the HBV group. There was no statistically significant difference among the HBV and HBV+HDV groups in terms of tumor recurrence, although there was a tendency to be higher in HDV infected individuals ($p>0.05$). Compatibility with the Milan criteria determined the HCC recurrence rates ($p<0.05$). HBV+HDV infection significantly increased the HCC recurrence rates of the patients with tumors beyond the Milan criteria ($p<0.05$). HBV recurrence in HDV infected individuals showed 100% recurrence in tumors beyond the Milan criteria ($p<0.05$).

Conclusion(s): HDV enhances the HBV related liver damage and therefore it seems to increase the tumor progression and cause recurrence in tumors beyond the Milan criteria following LDLT. Additionally, HBsAg relapse after LDLT with HBV and HDV may invite HCC relapse.

PP-51 LEDIPASVIR- SOFOSBUVIR FOR POST -TRANSPLANT RECURRENT HEPATITIS C PATIENTS : A SINGLE – CENTER EXPERIENCE

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Purpose: Hepatitis C virus recurrence following liver transplantation is an important problem. Fibrosis progresses more rapidly and causes graft failure. Aim of our work is to present the results of our post-transplant recurrent hepatitis C patients using the combination of sofosbuvir- ledipasvir

Material and method: We evaluated the efficacy of post-transplant recurrent hepatitis C patients treated with Sofosbuvir-Ledipasvir ± ribavirin. End-of-the treatment and sustained virological response were documented. The treatment response, clinical and laboratory adverse effects on immunosuppressive drug levels were assessed.

Findings: Twelve patients were included in the study. Median age was 62, median time from transplantation was 264 day. While hepatitis C RNA was negative in %98 at week 4 , it was negative in all patients at the end of the treatment and 12 weeks after treatment. Only in one patient hemoglobin levels were reduced which administered ribavirin during treatment. None of our patients were dosed.

Conclusion(s): Available treatment regimens are highly effective and well tolerated in both the pre- and post-transplant settings. Table 1 Baseline Characteristics of Study Cohort (n=12) parameter Results Age (mean) 62.5.4 Sex 5 male, 7 female HCV RNA IU/ml 5.773.028 u/mL Genotype 1/4 11/1 ALT at treatment IU/L 41 (10-123) Transplant to HCV treatment with DAAs interval days 264 day

PP-52 RISK FACTORS AND LONG TERM OUTCOME OF RENAL IMPAIRMENT AFTER LIVING DONOR LIVER TRANSPLANTATION: WHAT HAVE WE LEARNED SO FAR?

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Purpose: Renal impairment commonly occurs after liver transplantation (LT). The risk is high in cases of pre-transplant kidney failure, hepatorenal syndrome (HRS), and intra-operative or post-operative hypotension. In this study, we would like to point out the etiological profile of renal impairment in the setting of living donor liver transplantation (LDLT) in Egypt.

Material and method: 200 patients who underwent LDLT from the beginning of 2009 till June 2014 at the liver transplantation unit of Ain Shams Center for Organ Transplant (ASCOT) were included retrospectively in addition to 53 patients who underwent LDLT starting from June 2014 till June 2015 were included prospectively with post-operative one year follow up. All pre-operative, intra-operative and post-operative variables were analyzed and reported.

Findings: 57% of patients had acute kidney injury (AKI) post-transplantation. Low pre-operative GFR, HCV infection, intra-operative hypotension and post-operative use of cyclosporine significantly increased development of AKI post-operative. The 5 year cumulative incidence of chronic kidney disease (CKD) post-transplantation was 10.4 % of all transplanted cases. Pre-operative HCV-nephropathy, diabetic nephropathy and low GFR significantly increased CKD development post-operative.

Conclusion(s): AKI is common occurring in about 57% of transplanted patients. CKD increases with time after LDLT. In patients who developed both AKI and CKD, low pre-operative GFR and cyclosporine use post-operative were the significant risk factors for CKD development.

PP-53 HERBAL MEDICINE RELATED ACUTE LIVER FAILURE

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Purpose: Prior epidemiologic studies have predicted a rapid rise in herbal medicine (HM)-related -acute liver failure (ALF) and liver transplantation (LT) as trading of traditional herbal medicine drugs is expanded. In this study we explored the possible impact of HM-related ALF on the laboratory parameters.

Material and method: Totally, 38 HM induced ALF cases were scanned retrospectively. Patients were retrospectively identified between 2017 and 2018 using standard criteria (e.g., elevation in serum ALT >5x upper limit of normal with elevation from baseline in direct bilirubin of >1mg/dL.) ALF was defined by significant uncorrectable hepatic-based coagulopathy with hepatic encephalopathy.

Findings: Mean age of participants was 37±13 years, 27 (71%) were female and 81% were farmers. A total of 58 % of patients reported having herbal medicine pills; and 42% reported consuming traditional Turkish herbs. All patients were treated by IV NAC according to AASLD guidelines. The mean intensive care unit length of stay (LOS) was 8.9 days and hospital LOS 15.6 days. Compared to patients who consumed traditional herbs, patients who had taken HM pills were given more intracranial hypertension -directed therapies (mannitol 33% vs 16%, hypertonic saline 20% vs 4%, hypothermia 35% vs 12%, $p < .001$ for each). Finally, 2 (5.2%) were died, 3 (7.8%) underwent LT and 33 (87%) were recovered and discharged. In univariate analysis, female gender was a consistent predictor of death in study group. At final analysis, Factor V levels were positively correlated with hemoglobin and platelet levels ($p < 0.05$) and negatively correlated with prothrombin time ($p < 0.05$). Women were more likely to have lower factor V levels (mean: 36%) compared to men (mean: 49%) ($P < 0.05$). All patients who underwent LT or were died had a Factor V levels below than 30% compared to discharged counterparts ($p < 0.005$). ALF was a significantly more likely cause of liver transplantation in patients who had taken HM pills than those patients who consumed traditional herbs (5 versus 0; $P < 0.001$).

Conclusion(s): These findings suggest that detecting anemia and thrombocytopenia could be an important, economically feasible strategy for improving outcomes in HM-related ALF.

PP-54 BILIARY COMPLICATIONS AFTER LIVER TRANSPLANTATION

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Purpose: Despite there is an increase in patient and graft survival rates, biliary complications (BC) following liver transplantation surgery are still related with mortality and morbidity. The purpose of this study is to find out frequency, risk factors, management of BC and it's effect on patient survival.

Material and method: We analysed retrospectively 133 adult patients undergone liver transplantation surgery between 2010 and 2016 in Akdeniz University Hospital. Patient survival data is analysed by log-rank test. Factors related with BC are analysed by Cox regression model.

Findings: Of the 133 patients, 27 developed BC (%20.3). Mean age of donor patients is found statistically significant in terms of BC development. ($p=0.009$), (30.59 ± 8.88 vs. 39.58 ± 16.15). All of the BC developed patients were living donor patients ($p=0.001$). None of the cadaveric donor patients had developed BC. Donor characteristics (normal, over 70 years of age, HBsAg, Gilbert disease) is not found statistically significant ($p=0.116$). Transplanted liver segment type is found statistically significant ($p=0.01$). All of the BC developed patients were undergone right lobe liver transplantation. Patient blood type, gender, duration of liver disease, cause of liver disease, duration of cirrhosis, intensive care unit length of stay, hospital length of stay, technique of liver transplant (piggyback, conventional), presence of preoperative variceal bleeding, hepatocellular carcinoma, diabetes, hypertension, heart disease, renal failure, hemodialysis treatment, presence of postoperative acute rejection, duration of rejection and treatment choice of rejection are not found statistically significant. APACHE II, SOFA, MELD, Child score are not found found statistically significant. BC types of the patients are common bile duct stenosis ($n=23$), cholangitis ($n=1$), leakage and stenosis ($n=1$), cholangitis and stenosis ($n=2$). Technique of bile duct anastomosis is found statistically significant ($p=0.001$). Management of bile duct stenosis are hepaticojejunostomy ($n=15$), stent implantation ($n=8$), dilatation ($n=2$) and monitoring ($n=1$). Endoscopic Retrograde Cholangiopancreatography was applied to 8 of 133 patients. Follow-up duration of the patients are 34.19 ± 16.65 months. Among the patients end up with mortality, time to death and causes of death are not found statistically significant.

Conclusion(s): In our study the incidence of BC showed resemblance to incidence reports in research databases. Future studies will assure new insights and prospects in terms of development of BC.

PP-55 ONCOLOGICAL OUTCOMES OF HEPATIC RESECTION VS. TRANSPLANTATION FOR HEPATOCELLULAR CARCINOMA

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Purpose: Scarce data are available comparing outcomes of hepatic resection vs orthotopic liver transplantation (OLT) for localized hepatocellular carcinoma (HCC) patients both meeting and beyond Milan criteria. This study aimed to compare clinic and oncological outcomes of patients undergoing hepatic resection vs transplantation localized HCC.

Material and method: Between January-2004 and January-2017, clinic and oncological outcomes of patients who underwent hepatic resection (n=38) vs OLT (n=28) for localized HCC were compared through prospectively maintained database.

Findings: A total of 66 patients (with a median age of 62) fulfilled the study criteria were analyzed. Comparable postoperative complication (13.2% vs 28.6%, p=0.45) and perioperative mortality rates (7.9% vs. 10.7%, p= 0.2) were noted for resection vs OLT group. While Child-Pugh Class A patients more prevalent in resection group (78.9% vs 7.1%, p= 0.0001), rate of patients meeting Milan criteria was higher in OLT group (89.3% vs 34.25, p= 0.0001). Recurrence rates were 36.8% in resection group and 3.6% in OLT group at the end of median follow up (32 vs 39 months, respectively). HCC-related mortality rate was significantly higher in resection group (39.5% vs 1.7%, p=0.034), however, subgroup analysis of patients meeting Milan criteria revealed comparable HCC-related mortality rates (15.4% vs 8%, p=0.63). Based on logistic regression analysis, number of tumors (p=0.034, OR:2.1) and 'resection' type of surgery (p=0.008, OR: 20.2) were independently associated with recurrence .

Conclusion(s): Compared to liver transplantation, hepatic resection for localized hepatocellular carcinoma is associated with higher rate of recurrence and disease-related mortality.

PP-56 LIVING DONOR LIVER TRANSPLANTATION DUE TO CRIGGLER NAJJAR SYNDROME

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Purpose: Crigler Najjar Syndrome is an autosomal recessive disorder which affects bilirubin metabolism with glucuronosyltransferase deficiency. Type I disease is associated with severe jaundice and neurologic impairment due to bilirubin encephalopathy that can result in permanent neurologic sequelae (kernicterus). Type II disease is associated with a lower serum bilirubin concentration and affected patients survive into adulthood without neurologic impairment. Crigler-Najjar syndrome type I should be suspected in infants who develop persistent jaundice due to indirect bilirubin within the first few days after birth. Liver transplantation is considered the only definitive treatment for Crigler-Najjar syndrome type I before the manifestation of neurological sequelae. We aimed to present our 5 patients receiving liver transplantation due to Crigler- Najjar Syndrome type I disease.

Material and method: We performed 1847 living donor liver transplantations between september 2005 and august 2018 at Liver transplantation Institute of Inonu University. Five patients received LDLT due to Crigler Najjar Syndrome type I disease.

Findings: There were 4 male patients. Youngest patient was 6 months old, and the oldest patient was 22 years old. The bilirubin levels of the patients were between 22 -30 mg/dl before transplantation even though they were treated with plasmapheresis and phototherapy. There were no signs of neurological disease in both patients. One patient was lost due to sepsis 1 month after liver transplantation. Other patients recovered well after liver transplantation and they need neither phototherapy nor plasmapheresis.

Conclusion(s): Irreversible neurological deficits may occur during the course of Crigler Najjar Syndrome type I. Plasmapheresis and phototherapy may not prevent the manifestation of neurological disease. Liver transplantation is the only treatment modality to avoid kernicterus, as long as it performed on appropriate time.

PP-57 IMPORTANCE OF THIN-SLICE COMPUTED TOMOGRAPHY IN DETERMINING THE SEVERITY OF CHRONIC LIVER DISEASE

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Purpose: Advanced technological imaging systems and their increased diagnostic sensitivities have made the necessity of aid of imaging methods indispensable in functional evaluation of chronic liver diseases. Therefore, in this study, we aimed to put forward the relationship between multi-detector computed tomography (CT) findings and scores for liver function evaluation.

Material and method: We included 51 patients who had preoperative multi-detector CT images into this study. They were either in the waiting list for transplantation or were transplanted in the last two years and had full medical records. Patients with portal vein thrombosis were excluded from the study. Preoperative creatinine levels, INR values, albumin levels, presence of ascites, encephalopathy, and varices, MELD scores, MELD-Na scores, and Child-Pugh scores were all determined from patients' medical histories, physical examinations and laboratory test results. Presence of ascites and varices, size of liver, size and diameter of spleen, portal vein diameter, splenic artery diameter, proper hepatic artery diameter were all determined from CT images.

Findings: In univariate analyses, preoperative INR values, sodium, bilirubin and albumin levels, and presence of ascites were directly associated with all three scoring systems ($p < 0,005$). Although the correlation between diameter of spleen and MELD scores ($p = 0,0001$) and MELD-Na scores ($p = 0,019$) were strong, there was no association with Child-Pugh scores ($p = 0,08$). Though there were correlations between portal vein diameter ($p = 0,037$) and splenic artery diameter ($p = 0,039$), and MELD scores, no association was detected with MELD-Na scores and Child-Pugh scores. Even though a reversible relationship between proper hepatic artery diameter ($p = 0,0179$) and MELD-Na scores was noted, no statistically significant correlation with any scoring systems was not able to be shown. In multivariate logistic regression analyses, portal vein diameter was found to be significant for MELD Scores as a radiological finding. In multiple linear regression analyses, right hepatic artery diameter was statistically significant for MELD-Na scores. In multiple linear regression analyses, there was no statistically significant preoperative radiological finding for Child-Pugh scores.

Conclusion(s): Since there were correlated parameters between radiological findings and MELD and MELD-Na scores in our study, we consider that preoperative multi-detector CT imaging in patients with chronic liver disease can contribute to diagnosis of disease, determination of vascular anomalies, as well as grading the severity of disease.

PP-58 CARBAPENEMASE PRODUCING BACTERIAL INFECTIONS IN LIVER TRANSPLANT PATIENTS

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Purpose: Carbapenemase (CPE) producing bacteria are leading serious and life-threatening infections and are always resistant to carbapenems and many other classes of commonly used antimicrobial agents; thus, managing infections caused by them poses a substantial challenge in clinical practice. They can also cause morbidity and mortality in liver transplant patients. They can occur at any time after transplantation, their incidence is highest during the first postoperative month.

A retrospective analysis of CPE culture-positive liver transplant patients can help to examine the epidemiology and microbiology of these bacteria, as well as information on the possible infection sources, susceptibility patterns, and expected mortality in infected populations and also formulate a consensus on the appropriate use of empirical and directed antibiotic therapy which can effectively reduce infections in these patients.

Material and method: We reviewed the medical records of 98 subjects who underwent liver transplantation at Ankara University Hospital, a 1900-bed tertiary care university hospital, in Ankara, Turkey, between January 2014 and August 2018. Patients showing signs of infection with culture positivity for CPE producing organism were included in the study. Information was collected on demographic characteristics, site of infection, antibiotic susceptibility pattern. First positive culture was registered as index infection and source recorded as primary source. If the same patient was positive for some additional organism, it was registered as secondary infection. SPSS software Version 23.0 was used for statistical analysis. $P < 0.05$ is considered statistically significant.

Findings: Among the 37 patients in whom cultures were positive for CPE-producing organisms, male patients were affected more than female patients. The primary source of infection was abdominal fluid followed by sputum, blood. Among all the CPE-producing organisms, *Klebsiella* spp. accounted for a maximum number of cases followed by *Enterobacter* spp., and *E. coli*. Sensitivity pattern of *Klebsiella* spp. showed that it had resistance to carbapenems, quinolones, and also colistin. Sensitivity of *Klebsiella* was relatively preserved for amikacin and tigecycline. *E. coli* was sensitive to colistin in all the cases. A total of 17 patients developed secondary infection. Source of infection in maximum number of cases was abdomen. *Klebsiella* was also predominant in these cases. MELD scores and length of hospital stay were higher and statistically significant when compared to patients who were CPE negative. Mortality was highest in CPE positive group.

Conclusion(s): Infection is the most important cause of mortality and morbidity after liver transplantation and increases the cost of treatment. Regarding the culture sensitivity patterns and resistance mode, empirical therapy with carbapenems does not produce a solid result. The high mortality observed with these infections reflects very limited therapeutic options.

PP-59 POSTOPERATIVE PROCALCITONIN AS A MARKER OF INFECTION IN LIVER TRANSPLANTATION

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Purpose: Bacterial infections are of the major cause of morbidity and mortality in immediate post-liver transplant period. Procalcitonin may have a role in diagnosis of infections in those patients.

Material and method: Plasma level of Procalcitonin and Creactive protein was measured in 15 post-liver transplant patients in immediate post-operative period (first week), and 15 healthy control subjects.

Findings: the sensitivity, specificity, positive predictive value and negative predictive value of procalcitonin were 87.53%, 83.31 %, 85.74% and 85.23% respectively at cut off point of 0.6 ng/ml. Area under ROC Curve was 0.932. Area under ROC curve of procalcitonin was higher 0.931 than that of CRP (0.873). Sensitivity of procalcitonin was better than that of CRP with highly significant pvalue < 0.001

Conclusion(s): Procalcitonin is an important marker for infection in the immediate postoperative period in liver transplant recipients. Compared to CRP; Procalcitonin was significantly more important in diagnosing infections in this period.

PP-60 IMPACT OF PREOPERATIVE HEPATIC ENCEPHALOPATHY ON OUTCOME IN LIVER TRANSPLANT RECIPIENTS: A SINGLE CENTER EGYPTIAN STUDY

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Purpose: Hepatic encephalopathy is not included in MELD score although it is a serious complication of liver cirrhosis. So, it is not included in predicting post transplant mortality. It is known that many transplant centers postpone the operation if the recipients is in encephalopathy. We aimed to assess the impact of hepatic encephalopathy on the outcome of liver transplantation in Patients with end stage liver disease.

Material and method: Retrospective study including 64 Egyptian patients with liver cirrhosis and ESLD from AlManial Hospital Cairo university undergoing liver transplantation were included in this study. 49 patients had preoperative HE (28 had overt HE, 21 had minimal HE), and 15 recipients with no HE. Comparison of these groups regarding postoperative synthetic graft functions, evidence of rejection were done at D0, D1, D7, one month, 3 months and 6 months.

Findings: Recipients with overt HE had lower albumin at D7 compared to those with minimal or no HE ($p=0.018$). Rejection was more in the group with overt HE compared to recipients with minimal or no HE but the results were not statistically significant ($p=0.071$). there were no impact on 6 months mortality. Backward stepwise logistic regression analysis was done revealing that; presence of overt HE and serum level of Albumin at D0 were independent predictors of rejection.

Conclusion(s): Pretransplant HE may be an independent prognostic factor of rejection but not mortality in the first 6 months.

PP-61 THE ROLE PREOPERATIVE VIRAL LOAD AND PRESENCE OF HEPATOCELLULAR CARCINOMA ON THE BILIARY COMPLICATIONS AFTER LIVER TRANSPLANTATION DUE TO HEPATITIS –C VIRUS

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Purpose: Chronic hepatitis C virus (HCV) infection is a global health problem and the need for liver transplants is ever-growing. For optimal surgical success, risk factors must be identified and HCV viral load must be reduced to a minimum to avoid complications. In this study, we aimed to investigate the role of HCV viral load on the post-transplant biliary complications.

Material and method: Between 2004 and 2018, 114 liver transplant recipients with HCV infection were retrospectively reviewed. Data collection included demographic variables, preoperative and postoperative amount of HCV RNA, preoperative diagnosis of hepatocellular carcinoma (HCC), postoperative biliary complications in the early and late period. After missing values were excluded, remaining 97 patients were divided into two group regarding the preoperative HCV RNA status [Group A: HCV RNA (+) and Group B (HCV RNA (-)]

Findings: Demographic parameters were similar between groups. There were 67 patients in Group A and 30 patients in Group B. Overall rate of biliary complications was slightly higher in Group A [20% (n=14) vs. 13% (n=4), respectively, $p=0.573$). Biliary stricture in the late period was also higher in Group A. In HCC (+) patients (n= 26), biliary complications was significantly higher compared to HCC (-) patients (34% vs. 12%, $p=0.018$). However, in patients with biliary complications, the rate of multiple duct anastomosis was slightly higher (45% vs. 26%, respectively, $p=0.14$).

Conclusion(s): The worse effect of biliary complication on patient survival has been confirmed so far and this is mostly evident in those patients with viral etiology and carcinoma. As it was also suggested in our study, hepatocellular carcinoma and positive viral status should be considered as a predisposing factor for postoperative biliary complications after liver transplantation. However, the rate of multiple duct anastomosis should also take into consideration). New standards of antiviral medications and bridge therapy for HCC may improve transplant outcomes.

PP-62 SERUM BICARBONATE LEVELS IN PATIENTS WITH ACUTE LIVER FAILURE DUE TO ACUTE HEPATITIS B INFECTION

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Purpose: Prior epidemiologic studies predicted a rapid rise in acute hepatitis B virus (HBV) infection related - acute liver failure (ALF) and liver transplantation (LT) as turmoil increases in the middle east. The indication for LT was defined as ALF if the FV level below than 35%. Aim of this study was to determine if simple laboratory values play a role in determining lower FV levels.

Material and method: Totally, 24 acute HBV-related ALF cases who admitted to a tertiary hospital between the date May 2016. and May 2018 were scanned retrospectively. Acute HBV infection was defined as seropositive results for both of HBS and anti HBC Ig M antigens. Need for LT was assessed by the determination of Factor V levels. Patients who had acute HAV and HCV infections were excluded from the study. Chi square and student-t tests were used for the analysis.

Findings: Mean age of participants was 34±13 years, 8 (33%) were female and 14 (66%) were farmers. Among 24 cases with acute HBV- related ALF in critical care, 2 (7%) was died, 4 (15%) underwent LT and 18 (77%) were recovered and discharged. Results of 24 patients with available data also showed that factor V levels were positively correlated with serum bicarbonate levels ($p<0.05$).

Conclusion(s): These findings suggest that detecting lower serum bicarbonate levels could be an important, economically feasible strategy for estimating lower factor V levels.

PP-63 THE EFFECTIVENESS OF NON-INVASIVE FIBROSIS MARKERS IN THE PREDICTION OF HCC IN HBV AND HBV+HDV INDUCED CIRRHOSIS IN LDLT CANDIDATES

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Purpose: HCC is the fourth common diagnosed malignancy worldwide. Detection of HCC is important in cirrhotic cases because of the high mortality rate. Noninvasive fibrosis markers are using in the prediction of liver fibrosis in chronic hepatitis and cirrhosis patients. We aimed to investigate the power and accuracy of noninvasive fibrosis markers in the prediction of HCC in chronic hepatitis B and chronic hepatitis B+D induced cirrhotic patients in this study.

Material and method: 1216 patients with chronic liver disease were examined retrospectively between 2004 to 2018. Totally 331 patients enrolled to study. Patients divided two main groups called HCC and non-HCC cirrhotic group. HCC group were consisted of 115 cases while cirrhosis group were consisted of 216 patients. Patients divided according to their Child-Pugh grades in the second step. 11 non-invasive fibrosis marker enrolled to study. Two main group patients were evaluated with 3 AFP based model and 8 non-AFP based model for each Child-Pugh grade in the prediction of HCC.

Findings: AFP based models were higher in the patients with HCC and statistically significant outcomes obtained with this methods for each Child-Pugh grade in the HCC prediction ($p<0,05$). FIB-4, APRI and Forns index were also higher in Child B group HCC patients but did not reach statistically significant p values. Fibro-Q index, APRI and King's score were also higher in Child C group HCC patients but they were not statistically significant. PAPAS, Fibro alpha and BRC scores were higher in patients with HCC in all Child-Pugh grades with statistical significance.

Conclusion(s): Non-invasive fibrosis markers are cheap, easy and successful methods for non-invasive detection of liver fibrosis. They also may be useful for the early detection of HCC in liver transplantation candidates but AFP based models seems to be more useful in the HCC prediction for all disease grades.

PP-64 IMPACT OF TOTAL/PARTIAL INFERIOR VENA CAVA OBSTRUCTION OVER HEMODYNAMICS IN LIVER TRANSPLANTATION

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Purpose: The purpose of this study is to assess the impact of two different inferior vena cava (IVC) obstruction methods (either total or partial clamping) on intraoperative hemodynamic status of recipients undergoing living donor liver transplantation.

Material and method: We retrospectively analyzed sixty one recipients (28 total clamping, 33 partial obstruction). Demographic data, hemodynamic parameters (Mean arterial pressure (MAP), heart rate (HR), central venous pressure (CVP)), total input fluid, urine output, intraoperative total doses of inotropic and vasopressor agents were recorded. MAP, HR and CVP were assessed four times during the operation as ; T1:5 minutes before clamping, T2:5 minutes after clamping, T3:5 minutes before clamp release, T4:5 minutes after clamp release. The parameters among groups were compared by independent sample T-test and Mann-Whitney-U test in parametric and non-parametric variables respectively.

Findings: The mean age of 61 patients (46 male, 15 female) was 52,28±9,5 SD years. Mean MELD score was 15,57±5,84 SD. The median (Q1-Q3) inotropic dose was 114,43 (110-186) mg and the median (Q1-Q3) vasopressor dose was 0,64 mg

(1,12-0) Mean input fluid for total/partial obstruction patients was 10232±1997,60 SD, 9000 ± 1586,07 SD ml respectively. Mean urine output for total/partial obstruction patients was 3403,57±955,09 SD, 3059,09±801,11 SD ml respectively. Inotropic agent dose and HR were significantly higher in total clamping patients comparing to the partial clamping patients. However vasopressor agent dose, MAP and CVP were not significantly different between two groups (Table).

	Total IVC Obstruction	Partial IVC Obstruction	P VALUE
Inotropic Dose (mg) (Median (Q1-Q3))	180 (117,5-221)	65(0-97)	,000 *
Vasopressor Dose(mg) (Median (Q1-Q3))	0,77(0,39-1,29)	0,45(0-0,98)	,166 *
MAP T1 (Mean±SD)	69,39±11,67	70,07±10,17	,596 #
MAP T2 (Mean±SD)	62,78±8,94	61,96±8,38	,866 #
MAP T3 (Mean±SD)	60,60±10,05	65,14±8,81	,018 #
MAP T4 (Mean±SD)	67,10±10,81	70,50±9,78	,055 #
HR T1 (Mean±SD)	87,50±8,91	83,14±7,78	,023 #
HR T2 (Mean±SD)	90,71±9,07	84,18±8,86	,006 #
HR T3 (Mean±SD)	92,35±9,00	86,93±8,39	,019 #
HR T4 (Mean±SD)	92,67±9,66	90,32±8,25	220 #
CVP T1 (Median (Q1-Q3))	4 (3-4,25)	4 (3-5)	,743 *
CVP T2 (Median (Q1-Q3))	2 (1-3)	2 (1-3)	,391 *

CVP T3 (Median (Q1-Q3))	2 (1-3,25)	2 (1,75-3)	,407 *
CVP T4 (Median (Q1-Q3))	5 (4-6)	4 (3-5)	,047 *
IVC=Inferior Vena Cava MAP = Mean Arterial Pressure, HR= Heart Rate, CVP = Central Venous Pressure T1=5 minutes before clamping, T2=5 minutes after clamping, T3=5 minutes before clamp release, T4=5 minutes after clamp release		# Independent Sample T- Test	* Mann- Whitney -U Test

Conclusion(s): Hemodynamic management in liver transplant recipients with total IVC clamping requires higher doses of vasoactive agents when compared to the partial clamping .MAP and CVP are not significantly different with higher inotropic doses, and are not affected with clamping method.Higher heart rates were observed and are thought to related with the dose of intropics.

PP-65 THE PRESENCE OF PREOPERATIVE PORTAL VEIN THROMBOSIS DOES NOT AFFECT SURVIVAL IN LIVING DONOR LIVER TRANSPLANTATION

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Purpose: In living donor liver transplantation, the presence of portal venous thrombosis (PVT) increases the complexity of surgery. While this situation was an important issue in the past, today new surgical techniques enable better outcomes. Our aim was to compare the survival rates of patients with and without preoperative PVT.

Material and method: Ankara University Liver Transplantation database was used for this analysis. All adult liver transplantation (LT) cases between 2013-2018 were included in the analysis. During this period, 129 liver transplantations were performed [(22 cadaveric (17%); 107 living related; 76 M/53F; median age: 53 (16-70)]. Of them, 33 had preoperative PVT. PVT was graded 1-4 according to the Yerdel classification system. Patients with and without preoperative PVT were compared.

Findings: Baseline clinical findings were similar in patients with and without PVT groups except for age (54 vs 48; p:0.03 respectively). Baseline MELD score were also similar (16 vs 19; p:0.28 respectively). Median follow up time was 18 (0-66) months. During posttransplantation period, 29 patients died and of them, 5 had preoperative PVT. Kaplan Meier analysis shows similar survival rate in patients with and without preoperative PVT (p:0.4). Findings were similar in cadaveric and living related LTs. Preoperatively, 17 patients had grade 1, 10 patients grade 2, 4 patients grade 3 and 2 patient grade 4 thrombosis. When we compare the patients with preoperative grade 2-4 PVT (n:16) vs without PVT (n:96), survival rate also did not differ (p:0.87).

Conclusion(s): Preoperative PVT did not affect survival in LT in this single center study. This study suggests that LT can be performed even in advanced PVT cases using appropriate treatment modalities if the surgical team has experience in circumventing PVT.

PP-66 RIGHT LOBE LIVER TRANSPLANTATION FOR WILSON'S DISEASE FROM HETEROZYGOTE DONOR

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Purpose: Use of liver grafts from heterozygote genetic carriers for Wilson's disease was considered safe. We present a 14 year-old male patient with Wilson's disease who was undergone right lobe liver transplantation from his heterozygote mother for Wilson genetic defect.

Material and method: The patient was admitted to our hospital with the diagnosis of decompensated liver cirrhosis due to Wilson's disease (compound mutation in the ATP7B gene; c.3207C>A [p.His1069Gln] inherited by the mother and c.4022G>A [pGlu1341Asp] inherited from the father) as a liver recipient candidate from his mother. His Child score was 11 (Child C) and MELD score was 28. His weight was 52 kg. Total liver volume of his 40 years old mother was calculated 1488 mL in hepatic CT angiography. Right liver lobe and left liver lobe of the donor were calculated as 1044/444 (70.16%/29.84%) mL. Preoperative ceruloplasmin level, 24 hour urinary copper excretion, serum copper level and liver biopsy of the donor were all normal.

Findings: Right lobe liver transplant was performed from his mother. Recipient and donor were discharged from the hospital uneventfully. The patient's preoperative ceruloplasmin level was 15.3 mg/dL and increased to 22 mg/dL after liver transplant. Also urinary copper decreased from 1939 to 68 microg/day and serum copper improved from 72 to 82 mg/dL after liver transplant. There were no statistically difference between preoperative and postoperative serum copper, ceruloplasmin and 24 hour urinary copper levels of the donor.

Conclusion(s): Equal outcomes of living related liver transplantation for Wilson's disease were reported for heterozygote and nonheterozygote donors previously. Usually left liver lobes were used for transplantation from heterozygous donors. To our knowledge this is the second report that right liver lobe was used from a heterozygous donor in the literature. The use of right liver lobe of the heterozygous donor has no negative impact on both the donor and recipient for Wilson's disease.

PP-67 IMPACT OF CYTOKINE ADSORPTION TREATMENT IN LIVER FAILURE

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Purpose: Cytokine adsorption therapies (CAT) are not included in Sepsis Guidelines although they are performed on cases unresponsive to the treatment. Generally, CATs are performed via continuous veno-venous hemodialysis (CVVHD). Several CAT performed case series reported decreased actual mortality according to the mortality predicted by APACHE II score, but not extensively studied yet.

Material and method: We performed a total of 9 sessions of CAT (Cytosorb®). Hemoadsorber with CVVHD as 12 hours/session in 5 severe sepsis cases with acute or chronic liver failure. Biochemical parameters were recorded at pre-CAT as 1 and post-CAT as 2. Statistical analysis was done by SPSS v.24 using T test.

Findings: There were significant decreases in serum total bilirubin (TB), direct bilirubin (DB), hemoglobin, procalcitonin, GGT and alkaline phosphatase (ALP) values ($p < 0.05$). (TB1: 18.14 ± 4.47 mg/dl, TB2: 14.32 ± 4.10 mg/dl; DB1: 12.50 ± 3.25 mg/dl, DB2: 10.50 ± 2.07 mg/dl; Hemoglobin1: 9.28 ± 1.19 g/dl, Hemoglobin2: 8.60 ± 4.43 g/dl; Procalcitonin1: 23.72 ± 36.69 ng/ml, Procalcitonin2: 14.38 ± 17.54 ng/ml; GGT1: 67 ± 66.81 U/l, GGT2: 67.88 ± 63.99 U/l; ALP1: 144.11 ± 131.17 U/l, ALP2: 116.33 ± 89.85 U/l)

There were decreases in serum white blood cell (WBC), neutrophil, creatinine and ALT levels but the differences were not significant ($p > 0.05$). (WBC1: 17.31 ± 9.46 10^3 /uL, WBC2: 13.64 ± 6.84 10^3 /uL; Neutrophil1: 15.49 ± 8.62 10^3 /uL, Neutrophil2: 11.88 ± 6.26 10^3 /uL; Creatinine1: 2.43 ± 1.48 mg/dl, Creatinine2: 1.96 ± 1.57 mg/dl; ALT1: 117.88 ± 67.10 U/l, ALT2: 119.66 ± 73.79 U/l). Serum ammonia, albumin, CRP, AST, colloid oncotic pressure, hematocrit, pH, INR, fibrinogen, platelet and LDH levels did not show any difference. Three of 4 patients who underwent cytokine filtration lost their lives. Our mortality rate was 75%

Conclusion(s): According to these results; CAP can be an alternative for reducing bilirubin levels in liver failure. When compared with other procedures performed for hyperbilirubinemia, CAP has the disadvantage with no effect on serum ammonia levels. CAP may be considered in the treatment plan of severe sepsis associated with liver failure because of the positive effects on both sepsis and hyperbilirubinemia.

PP-68 THE INFLUENCE OF HYPOTHERMIC OXYGENATED MACHINE PERFUSION ON THE DEGREE OF ISCHEMIC INJURY OF LIVER GRAFT

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Purpose: Orthotopic liver transplantation is the only method for treatment of the end stage liver disease. The progressively increasing mismatch between effective donors and recipients leads to utilization of grafts from marginal donors. This results in increase of postoperative complications, mostly early graft dysfunctions and biliary complications.

Material and method: Livers, that were recognized as marginal during retrieval, were explanted using an HTK solution and stored with static cold storage (SCS) for the transportation period. During the "back table" procedure, a complete separation of the liver parenchyma was performed along the Cantlies line. At the end of the procedure, the weight and temperature of both lobes were measured. After randomization one lobe was stored with SCS at a temperature of 4°C (control group, n = 9), and the second underwent hypothermic oxygenated machine perfusion through the portal vein with 2 liters of Belzer UW MPS solution at $9 \pm 1.7^{\circ}\text{C}$, perfusion pressure 3 mm Hg, flow rate 100 ± 15 ml / min, 100% oxygen flow - 1 l / min, $\text{pO}_2 = 34.7 \pm 1.1$ kPa for 4 hours (study group, n = 9). Sampling of effluent and parenchyma sections for biochemical and morphological evaluation was performed at the beginning of the study, 2 and 4 hours after the start of the experiment in both groups.

Findings: After 4 hours of study in the control group (SCS), (a significant increase in cytolytic enzymes was observed (LDH - 40.63 [9.17, 41.09], AST - 4.3 [2.13, 5.6] U / l) in comparison with the study group (LDH-7.6 [1.65, 12.5] U / l), AST - 2.45 [1.53, 3.0] U / l) based on 1 g of liver parenchyma, and also significantly higher values of von Willebrand factor, a marker of endothelial damage, were determined (vWF - 4.71 [2.4, 7.4] vs. 1.37 [0; 2.8] ($p = 0.018$).

Conclusion(s): The use of hypothermic oxygenated machine perfusion can reduce the degree of ischemic injury of the liver graft.

PP-69 ATRIOVENTRICULAR BLOCK; A HERALDING SIGN OF CARDIAC ALLOGRAFT REJECTION

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Purpose: Heart transplantation is the gold standard method for treatment of end stage heart failure patients, however despite improvements in immunosuppressive treatment, patients are at significant risk of allograft rejection specially early after transplantation, the risk of rejection reduces over time, but still can happen at any time post transplant, therefore any change in patient's heart condition including reduced left ventricular ejection fraction, arrhythmia and any type of blocks need more concern.

Material and method: A 29 years old man underwent heart transplant 5 years ago due to dilated cardiomyopathy. He was on immunosuppressive therapy (Cyclosporine, Mycophenolate mofetil and Prednisolone) and was good until one week before his admission, that he felt palpitation.

Findings: Electrocardiography (ECG) during palpitation showed second degree AV-block with heart rate about 60 b/min, echocardiography showed good LV systolic function and no regional wall motion abnormality, therefore the patient referred for endomyocardial biopsy (EMB) and coronary angiography (CA). CA was normal, but EMB showed rejection compatible with ISHLT grade 2R. After treating the patient with Methylprednisolon (1.5 grams), patient's symptom relieved and AV-block resolved.

Conclusion(s): Bradycardia and second degree AV block late after heart transplantation could be the sign of cardiac allograft rejection and need more evaluation especially endomyocardial biopsy .

PP-70 LIVER TRANSPLANT IN AUTOIMMUNE HEPATITIS FIRST PRESENTING IN THE POSTPARTUM PERIOD: A CASE REPORT

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Türkiye Yüksek İhtisas Hastanesi

Purpose: Autoimmune hepatitis (AIH) is an uncommon inflammatory disease more frequently seen in young women with a prevalence of 16.9 per 100,000. Most patients respond to immunosuppressive therapy, but rarely it progress to the fulminant liver failure. Liver transplantation (LT) is an effective treatment for these minor cases, although recurrence has been reported as well. In the postpartum period after loosing the tolerogenic effects of the pregnancy immune rebound effect and deterioration of liver functions can be seen in AIH patients. In this case report, we present the case of postpartum autoimmune hepatitis progressing to liver failure and treated with LT.

Material and method: Case Presentation: A 29-year-old female was admitted to our hospital for liver dysfunction. She felt general fatigue after delivery of her third child and her laboratory work-up showed a progressive hepatic failure. She had no past or family history of liver disease. Tests for viral hepatitis were all negative. She was added to the urgent liver transplantation list because of rapid progression of hepatic failure and encephalopathy (lab. MELD score increased from 19 to 27 and Halstead Reitan score was 3). Needle biopsy of the liver showed histologic findings consistent with AIH and Revised Original Score for AIH was 17. An orthotopic LT was performed and the operation was uneventful. Immunosuppression consisted of corticosteroids and tacrolimus was applied after the surgery. Her symptoms and liver dysfunction were improved after LT and she was discharged 2 months later. She is alive 10 years after LT and AIH is under control with immunosuppression.

Findings: Discussion: AIH is a rare entity with unclear etiology and pathogenesis. It has various presentations and 25% of cases presented with asymptomatic liver test abnormalities. However, acute liver failure and rapid progression were demonstrated in some cases. Autoimmune diseases may exacerbate after delivery due to the immune rebound mechanism. Mostly this affect only involves transient dysfunction, but in 20% of cases standard treatment fails and progresses to organ failure. Transplantation is indicated in patients with fulminant liver failure due to acute AIH or decompensated cirrhosis secondary to AIH. For patients who underwent liver transplantation for AIH suggested 5-year survival was 0.73. We presented the case of postpartum AIH that progressed to liver failure and needed LT with 10 year survival.

Conclusion(s): Conclusion: AIH should be considered in the differential diagnosis of liver dysfunction first presenting in the early postpartum period.

PP-71 A RARE CASE OF EPIPLOIC APPENDAGITIS AFTER LIVER TRANSPLANTATION

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Purpose: Epiploic appendagitis is a rare condition that involves inflammation of the epiploic appendages which are located on the serosal surface of the colon. It is usually misdiagnosed as diverticulitis or appendicitis. Diagnosis mainly depends on radiologic findings and once the diagnosis is accurately made, most patients respond to pain control and conservative management. Thence unnecessary investigation or intervention can be avoided. The rapid growth of solid organ transplantation and improving survival among organ recipients increase posttransplant recipient population and thus rare cases seems more often. In this case report, we present the case of epiploic appendagitis after LT.

Material and method: A 30-year-old man who underwent orthotopic liver transplantation for end-stage cirrhosis admitted to our ICU and maintained on tacrolimus for immunosuppression. A computed tomography (CT) scan was requested after the routine abdominal ultrasonography showed suspicious mass on left lower quadrant (diverticulitis?). CT scan revealed an ovoid, well-circumscribed fat-attenuated mass with hyperattenuating ring adjacent to the descending colon on the antimesenteric side (figure 1). The appearance was compatible with epiploic appendagitis of the left colon. On physical examination, he was afebrile with normal vitals, and no associated symptom was present. His complete blood count, C-reactive protein (CRP), and urine analysis were within the normal limits. Infectious causes such as CMV and tbc were ruled out. He was treated conservatively with intravenous fluid therapy, antibiotherapy and a non-steroidal anti-inflammatory drug. One week later the CT scan was repeated and the absence of the findings confirmed. The patient was transferred to ward and discharged one month later.

Findings: Epiploic appendagitis is a relatively rare and self-limiting inflammation which heals conservatively with intravenous fluid and non-steroidal anti-inflammatory treatment. Presentation usually involves abrupt onset of focal abdominal pain mostly in the lower quadrants, and the white blood cell count is either normal or mildly elevated. Localization, if present, is usually to the left lower quadrant, and this is based on the sigmoid colon harboring the largest number of epiploic appendages. Due to similarities in presentation, this entity is often confused with diverticulitis and appendicitis. To our knowledge, the presented case was the only presentation of epiploic appendagitis in liver transplanted patient. The CT findings are well-documented and pathognomonic

Conclusion(s): In order to prevent unnecessary surgical interventions and related morbidity, it is very important to be familiar with the imaging features of this rare entity in transplant population to establish a definitive diagnosis.

PP-72 BONE MARROW AND LIVER TRANSPLANTATION IN DOCK8 DEFICIENCY

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Purpose: Dedicator of cytokinesis 8 protein(DOCK8) deficiency is a rare autosomal recessively inherited combined immunodeficiency, caused by mutations in the DOCK8 gene. The disease is characterized by recurrent viral infections, susceptibility to cancer and elevated serum levels of immunoglobulin E. To date DOCK8 has not been reported to be associated with severe cholestatic liver disease(CLD). We describe for the first time a case with DOCK8 deficiency associated with severe CLD in whom orthotopic liver transplantation(OLT) was performed successfully after allogeneic bone marrow transplantation (ABMT).

Material and method: Case report

Findings: A 5 year-old girl resented with mild direct hyperbilirubinemia and abnormal GGT level. She had neither previous history of jaundice nor elevation of liver enzymes. Her medical history included atopic dermatitis, chronic diarrhea, recurrent mucocutaneous fungal and viral infections and recurrent pneumonias. At the age of 3.5 years, diagnosis of DOCK 8 deficiency was made by immunological and genetic analysis. She had severe growth retardation, hepatosplenomegaly and excoriations on extremities. Progressive worsening of cholestatic liver disease was observed within 4 months. Investigations for etiology of liver disease were negative. Liver biopsy showed bridging necrosis, cholestasis and cirrhosis. Recurrent immune hemolytic crisis and several viral infections developed in follow-up. ABMT from a full matched related donor was performed. During ABMT multiple plasmapheresis was performed for hyperbilirubinemia. Five months after ABMT, LT was considered because of progressive, irreversible liver failure. She underwent whole cadaveric LT from a pediatric donor 1 year after ABMT . The explanted liver showed biliary cirrhosis and severe cholestasis. Postoperative course was uneventful. She was discharged 25 days post-LT. The patient is alive with normal liver function and moderate skin GVHD for 30 months after LT.

Conclusion(s): Successful LT following BMT is possible in patients with end stage liver disease related to DOCK8 deficiency. Timing of LT is challenging in patients requiring both BMT and LT since conditioning regimens for BMT can be highly hepatotoxic and the patients with supoptimal liver function can become decompensated during BMT.

PP-73 COMBINED TRANSPLANTATION OF HEART AND LIVER - THE ROLE OF THE NURSE

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Purpose: Slovenia-transplant is the central linking institution and the central coordinating office of the transplant network, operating since 1998. It enables the donor and recipient programs to function and ensures that all citizens have the right and access to treatment with transplantation (1). Organ transplantation is one of the most demanding professional and organizational procedures in modern medicine, which requires cooperation of the entire multidisciplinary team. Before, during and after organ transplantation, the nurse has an important role in a patient's comprehensive treatment. Precise planning, implementation and evaluation of nursing care is important (2). After a combined heart and liver transplant, the patient was transferred to the Intensive Care Unit (ICU) intubated, mechanically ventilated with 100% oxygen and an addition of nitric oxide, sedated. An orogastric probe, a permanent urine catheter, two thoracic drains and several vascular catheters were inserted in the patient. The abdominal wound was covered with surgical compresses, he was treated with negative pressure (vacuum assisted closure - VAC). The patient received three-dose vasoactive support. He received massive transfusion of blood products. In the course of treatment, a decision was made to relieve the transplanted heart by extracellular membrane oxygenation (ECMO), to insert dialysis catheters and a temporary cardiac pacemaker. Before the patient is admitted to the ICU, a nurse prepares the bed unit, the devices for preventing pressure sores, and the apparatus. In preparing all the necessary medicines and fluids, the protocol of intensive treatment of a patient after transplantation is helpful, giving all the instructions regarding the taking of blood and microbiological examinations. Protective isolation instructions are followed. The following is monitored, measured and evaluated in the patient: basic haemodynamic monitoring with the presentation of life functions, extended haemodynamic monitoring (Lidco), liver function performance (Limon), state of consciousness and pupils. Sedation (BIS-bispectral index) and brain flow (NIRS- near infrared spectroscopy) are monitored. The presence of pain is assessed, operational wound, abdominal drainage and VAC activity are observed (3). The ECMO system is monitored and controlled (4). According to doctors' instructions, a nurse prepares and applies infusion solutions and medicines that are highly risky, therefore double control is required in the preparation, calculation and administration of medicinal products, as well as the observation of possible adverse reactions to medicinal products. In patient treatment after transplantation, in addition to the knowledge of transplantation and intensive medicine, good professional communication in the team is of great importance.

PP-74 DOES THE DONOR TYPE –CADAVERIC OR LIVING- AFFECT THE RETURNING TO ALCOHOL CONSUMPTION AFTER LIVER TRANSPLANTATION DUE TO ALCOHOLIC CIRRHOSIS?

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Purpose: Alcoholic liver disease (ALD) is one of the most common indications for liver transplantation (LT). However, it has always remained as a complicated topic from both medical and ethical grounds because of the risk factor for relapse, which has been reported with a rate up to 95% and one-fifth (8-21%) of these with harmful drinking. We investigated whether donor type (cadaveric vs. living donor) affect returning to drinking after the LT.

Material and method: Between January 2004- January 2018, all patients who underwent LT due to alcoholic cirrhosis were retrospectively reviewed. Demographic features, the type of donor (cadaveric vs. living), the degree of relatives of living donors, postoperative morbidity and mortality were recorded.

Findings: There were 175 LT patients with alcoholic cirrhosis; of that, 39 patients underwent cadaveric LT. Demographic features were similar between the patients with living donor LT (LDLT) and cadaveric LT. The rate of the returning to drinking in LDLT and cadaveric LT was 29% and 30% ($p=0.845$). In LDLT group, comparing the $\leq 1^\circ$ -degree and $\geq 2^\circ$ degree relatives, the frequency was similar between the patients who return to drinking postoperatively ($n=40$) and not ($n=96$) [57% vs. 64%, respectively, $p=0.444$]. Postoperative morbidity and mortality were also similar between the patients with relapse and successful group.

Conclusion(s): The ethical issue remains a challenge for the patients with alcoholic cirrhosis. The rate of possibility for relapse appears consistent with the literature. Neither donor type nor the degree of relatives has any effect on the relapse.

PP-75 EXPERIENCE IN LIVER TRANSPLANTATION DUE TO PRIMARY SCLEROSING CHOLANGITIS: A SINGLE CENTER EXPERIENCE

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Purpose: Primary sclerosing cholangitis (PSC) is a chronic cholestatic liver disease of unknown origin. Although the course of PSC is variable, it frequently is progressive, leading to cirrhosis and requirement for liver transplantation (LT) in more than half of the patients. In this study, we aimed to analyze our results in the patients with LT due to PSC.

Material and method: Between March 2013 and August 2017, all adult (>18years) patients with LT due to PSC were analyzed and clinical data were obtained by retrospective review of patient charts. Demographic features, presence of any concomitant inflammatory bowel disease (IBD), time to LT, outcome data were recorded.

Findings: There were 15 patients (8 male/ 7 female) with a mean age of 46 ± 13 (age at diagnosis=36 yrs.) Median time to transplantation was 3 years (range: 0.5-14 yrs.). All patients had a pretransplant history of IBD. Concomitant cholangiocarcinoma was diagnosed in one patient (6.5%). Postoperative complication was observed in 4 patients (26%) and in two patients (13%), PSC recurred at a mean of 52 months post OLT. Disease free survival and overall survival were 37.3 and 38 ± 21 months, respectively. One of the patients with recurrence and one patient with graft failure due to rejection died in the follow-up period.

Conclusion(s): In one of the single-center studies of adults with PSC, we found that all patients with PSC had inflammatory bowel disease at diagnosis. The recurrence rate (13%) was comparable to the literature [20% (5.7–59%)]. Although the low frequency of PSC in our clinic, LT in these patients results in favorable outcome regarding postoperative morbidity and mortality compared to other etiologies.

PP-76 ANALYSIS OF LIVER TRANSPLANT WAITING LIST IN OUR CENTER

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Purpose: We aimed to analyze liver transplant (LT) waiting list access by demographics and etiology, particularly hepatocellular carcinoma (HCC), which has been prioritized for LT.

Material and method: Between 2011 and 2018, all patients listed for LT in our center were retrospectively reviewed. Demographic features, blood groups, etiology for liver disease, waiting time duration, MELD score and survival data were recorded. Differences between LT group and deceased patients in the waiting list were evaluated.

Findings: During this period, 266 patients were included into the LT waiting list. Only 119 patients underwent LT (M:94/ F:25, 53 yrs old) whereas 103 died (60 M/ 43 F, 53 yrs old) and 40 patients are still on the list. Seventeen patients were Status I and of these, seven patients died due to fulminant hepatic failure. MELD score was significantly higher in deceased group (28 ± 7 vs. 25 ± 6 , $p=0.014$). However, in LT group, preoperative MELD did not affect survival. Blood group was similar between groups, with the dominance of A Rh (+) in both groups. The frequency of HCC was significantly higher in LT group (29% vs. 11%, $p=0.002$). MELD score in HCC patients was lower when compared with other etiologies (24.4 ± 4 vs. 26.8 ± 6.8 , $p=0.098$). Waiting time duration and waiting over 90 days were similar between LT and deceased group (median: 138 days vs. 87 days, $p=0.744$, 57% vs. 49%). Regarding HCC as etiology, waiting time duration was also similar with other etiologies (270 days vs. 225 days, $p=0.488$). Overall survival in the waiting list and transplanted patients from waiting list were 41% and 63%.

Conclusion(s): Apparently, HCC is one of the leading etiologies, which considered for cadaveric LT in the waiting list in our center. Also these patients had slightly lower MELD score that was consistent with data reported in the literature.

PP-77 THE RECURRENCE OF HEPATITIS D VIRUS IN LIVER TRANSPLANT RECIPIENTS WHO HAD HEPATITIS B AND D VIRUS-RELATED CHRONIC LIVER DISEASE

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Purpose: Hepatitis B virus (HBV) and hepatitis delta virus (HDV) coinfection often leads to severe chronic hepatitis and cirrhosis. Data on recurrence of HDV and its long term impact on LT are limited. In this study, we investigated the prevalence of HBV and HDV coinfection in our transplant population and the effect of HDV recurrence evaluate its long term impact on LT.

Material and method: Between 2004 and 2018, the patients with LT due to HBV (n=361, 37.3%) were reviewed and those with HBV and HDV coinfection (n= 104, 30% of all HBV patients) were enrolled into our study. All patients received post-transplant combination therapy with nucleos(t)ide analogue and anti-hepatitis B immunoglobulins. Breakthrough infection was defined as re-emergence of HBV-DNA or HBsAg while on treatment.

Findings: From 2004 to 2014, the rate of HDV (+) was decreased (41% to 14%). Patients were followed for an average of 82 months (range 1-274). Post LT survival and HBV recurrence during the follow up period were 97% and 13.4 %, respectively. All 15 patients developed breakthrough infection while on monotherapy and were controlled with adding another oral agent and discontinuation of anti-hepatitis B immunoglobulins. There were no factors including demographics, concomitant hepatocellular carcinoma (p=0.733) and viral markers other than positive post-transplant HbsAg. Mortality was similar between patients with &without recurrence (2.2% vs. 7.1%, p=0.354)

Conclusion(s): Patients transplanted for hepatitis B and D virus cirrhosis, had favorable prognosis and good long-term results regarding recurrence infection. Close follow-up of patients and effective postoperative viral suppression with suitable drugs seems to be adequate to prevent recurrence and provide comparable outcome with non-recurred patients.

PP-78 COMPARISON OF MILAN AND UCSF CRITERIA FOR LIVER TRANSPLANTATION TO TREAT HEPATOCELLULAR CARCINOMA AND LONG-TERM RESULTS

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Purpose: The Milan and University California San Francisco(UCSF) criteria is acceptable criteria for liver transplantation to treat hepatocellular carcinoma(HCC). This study aimed to assess the validity of the Milan and UCSF criteria and investigate the long-term results of orthotopic liver transplantation(OLT) in patients with HCC.

Material and method: The study is a retrospective review of prospectively collected data. Between February 1998 and September 2017, 117(20.8%) of 562 OLTs were performed in patients with HCC. The patients were categorized into 3 groups according to both pre-OLT radiologic and post-OLT pathologic examinations. According to pre-OLT and post-OLT evaluations, patients numbers and groups were; pre-OLT Milan + (n=87), pre-OLT Milan-/UCSF+ (n=15), pre-OLT UCSF – (n= 15), post-OLT Milan + (n=72), post-OLT Milan-/UCSF+ (n=19), post-OLT UCSF – (n=26).

Findings: According to post-OLT pathological examination, the 10-year overall survival rates were Milan+, Milan-/UCSF+ and UCSF- groups were 71.8%, 71.3% and 29.8%, respectively (p=0.000). Moreover, the presence of microvascular invasion within the explanted liver had a negative effect on the 10-year overall survival (69.9% vs. 36.1%, p=0.000).

Conclusion(s): The Milan criteria are reliable in the selection of suitable candidates for OLT for the treatment of HCC. The UCSF criteria may be applied for selected patients for living donor liver transplantation in Turkey.

PP-79 BLOODSTREAM INFECTIONS IN LIVER TRANSPLANTATION

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Purpose: Solid organ transplantation (SOT) is a widely used treatment for many patients with end-stage organ disease. While allograft survival has significantly improved over the past few decades, bacterial infections, and particularly bloodstream infections (BSIs) remain a major cause of morbidity and mortality in SOT recipients. We sought to determine clinical characteristics, pathogens, risk factors and outcomes in patients with BSIs after liver transplantation (LT).

Material and method: This study was a retrospective analysis of BSIs in patients who had undergone liver transplant between January 2014 and July 2018 at a single center education and research hospital.

Findings: Twelve episodes of BSI occurred in 10 of the 46 patients who had LT during the study period. Eight subjects had a single; two, two episodes. All episodes were observed during the first 90 days following LT; the majority (75%), in the first month. Fifty percent of isolates were gram negatives; 41,6%, gram positives; and 8,3% fungemia. The mean age of the patients in BSI group and non-BSI are 51,5 and 48,2 years. There were no statistically significant difference observed between BSI and non-BSI groups for comorbidities, primer liver disease, laboratory findings, etc. (Tablo 1,2)

Conclusion(s): Prevention and early diagnosis of BSI is critical in transplanted patients. Symptoms of infection can be subclinical because of immunosuppression and this patients must be monitored closely to detect any subtle signs and symptoms. Appropriate treatment is vital and must be based on center specific epidemiology and antimicrobial sensitivity.

PP-80 THE STUDY OF MOST COMMON TYPE OF BACTERIAL INFECTION AFTER KIDNEY AND LIVER TRANSPLANTATION IN FCHM

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Purpose: Organ transplantation is one of the perfect ways to treat end stages of liver and kidney end stage disease. Patient with use immune-suppressant caused liver and kidney transplantation is sensitive to bacterial infection, which is a cause for sepsis and bacteremia. Therefore, identify the case of bacterial infections in the liver and kidney transplanted patient for the prevention of bacterial infection and further treatment nursing practice and planning is the purpose of this study.

Material and method: From the January 2016 to December 2017, a total of 124 patients surveyed that were treated at Transplantation center in FCHM. The 134 positive response to bacterial examination, such as sputum, throat, central venous tubes, and abdominal tubes from 33 customers of all patient through the retrospective study. Antibiotics, which have been identified and sensitized of bacteriology, played an important role in selecting antibiotics and treatment and nursing tactics.

Findings: During the last two years, 48 female and 76 male patients total number of 124 patients were served at the transplantation center. According to the age group of patients, male patient aged 18-60 and average is 36.4 ± 2 , female patient aged were 1-60 and average is 34.4 ± 2 . Bacterial infection were diagnosed 26.6 % of all 124 patient. The annual samples in percent which germination of the specimen bacteria was 19/54 (35,2%) in 2016, 14/70 (20%) in 2017 taken from survey participants.

Conclusion(s): In our study, most of the post-luminal episodes are coagulase-negative staphylococci and Enterococcus faecalis. According to the study of the Center for Genetic Transplantation of Iran, the bacteria E. coli and Enterobacter spp are most common in patients undergoing kidney transplantation. In other studies, bacterial infections account for 33.56% of people who contracted organs. According to the River-Sanchez and Kanisaskaite studies, 37% of patients have bacterial infections.

PP-81 LIVER TRANSPLANTATION IN WILSON'S DISEASE: LONG-TERM EXPERIENCE OF SINGLE CENTER

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Purpose: Liver transplantation (LT) is the most effective treatment method for preventing progressive and lethal complications of Wilsons disease (WD), despite the cadaveric (DDLT) and living donor (LDLT) liver transplantations are performed in many centers for WD, a limited number of reports were published, about long-term results. The aim of this study is to share the long-term outcomes of patients who underwent DDLT or LDLT at our center for the WD.

Material and method: Patients who underwent LT for the WD, between 1997 and 2017 were included to the study. Patient's survival data, death causes, preoperative and postoperative neurological status, urinary copper excretion levels, blood ceruloplasmin levels and follow-up data were analyzed retrospectively from the prospectively collected database. Kaplan- Meier method was used for survival analyses.

Findings: Eighteen patients (8DDLT, 10LDLT) with a mean age of 17.11 ± 9.88 (6-43) were included in the study. Median follow-up time was 80.57 ± 67.59 (0.23 - 240.9) months and the median survival time was 173.74 ± 25.13 months. 2 patients (11.1%) died in the perioperative period (0-90 days) and totally 3 patients (16.6%) died in the postoperative 0-12 month's period. The survival rates of the patient's at 1-, 5-, and 10 years were 83.3%, 75% and 67.3%, respectively. The median preoperative blood ceruloplasmin level was 27.8 ± 15.64 mg/dL and median urinary copper excretion amount was as 394.9 ± 128.4 µg/24 hours. Four patients had family history with WD. Seven patients had neurological symptoms preoperatively; after LT, neurological symptoms disappeared in 6 patients and no improvement was observed in one patient. During follow-up period, chronic rejection was seen in 5 patients, 3 patients were treated with medical procedure and 2 patients died due to chronic rejection.

Conclusion(s): Our findings are consistent with the literature, long-term survival is achieved in patients with no mortality, in the postoperative 0-12 month period and after LT, neurological symptoms are disappeared in most of the patients; according to this data, LT is an effective treatment method for the WD and complications.

PP-82 PREOPERATIV EVALUATION OF LIVER PARENCHYMA OF POTENTIAL DONORS IN LDLT

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Purpose: Hepatic steatosis carries a risk of postoperative liver dysfunction in donors and graft non-function in recipients. This article will discuss evaluation of fatty infiltration in donor liver parenchyma on multi-detector computed tomography.

Material and method: The methods of hepatic fat estimation include measurement of hepatic attenuation in HU and calculation of the liver attenuation index (LAI). Liver attenuation values reflect the degree of steatosis. Average attenuation of liver parenchyma is calculated by placing the circular region of interest of at least 1 cm² area at multiple places in liver on non-contrast CT images. Splenic attenuation is measured by placing the circular region of interest at its upper, mid, and lower poles. The LAI is the difference between mean hepatic attenuation and mean splenic attenuation.

Findings: A total of 52 donors were evaluated as potential recipients (34 men, 18 women; mean age, 33.2 years; range, 23–55 years). In 34 donors Liver attenuation index values was from 2 HU to 22 HU. LAI > 5 HU correctly predicted the absence of significant macrovesicular steatosis. These donors were acceptable for a liver transplant. LAI values of -10 to 5 HU were suggestive of mild to moderate steatosis (6-30%). 18 (34,6%) volunteers did not proceed to donation because of negative liver attenuation index less than -5 HU. In 2 cases with LAI -7 and LAI -8 liver biopsy was performed and 30% steatosis was confirmed in the pathohistological examination. Unacceptable liver biopsy was considered as contraindications for donation. LAI values of less than -10 HU were suggestive of moderate to severe hepatic steatosis of 30% or greater. In this cases liver biopsy is not needed, as such donors are not acceptable for liver transplant.

Conclusion(s): The CT imaging provides a detailed evaluation of fatty infiltration in donor liver parenchyma

PP-83 NOVEL BIOMARKERS OF ACUTE KIDNEY INJURY FOLLOWING LIVER TRANSPLANTATION

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Kasr Alainy

Purpose: early detection of acute kidney injury (AKI) following liver transplantation using Neutrophil gelatinase associated Lipocalin (NGAL) and renalase

Material and method: Our study was conducted on 50 patients with end stage liver disease (ESLD) undergoing living donor liver transplantation (LDLT). They were divided into 2 groups; Group I encompasses 23 acute kidney injury (AKI) patients following liver transplantation meanwhile group II included 27 non-AKI patients following liver transplantation. Serum renalase and NGAL were measured by ELISA technique; renalase was measured at day 1, day 7 and three months after liver transplantation. Meanwhile NGAL was measured at day 1 post liver transplantation

Findings: There was improvement of liver functions, kidney functions, Hb, platelets counts and CRP at 3 months post transplant than at day1, day 3, and day 7 ($P < 0.01$). On comparing renalase level at day 1, day 7 and 3 months there was a highly significant decline of its level at 3 months than at day 1 and 7 in AKI group than non-AKI group ($P < 0.01$). Regarding NGAL level at day one there was no significant difference of its level between AKI and non-AKI group ($P > 0.05$). On conduction of ROC curve renalase biomarker showed borderline significant change between AKI and non-AKI groups at day 1 (AUC: 0.54, $P = 0.08$), day7 (AUC: 0.605, $P = 0.08$) and 3 months (AUC: 0.605, $P = 0.08$) Meanwhile, NGAL biomarker did not show a significant change between the AKI and non-AKI groups.

Conclusion(s):Renalase showed a better predictive value and a higher validity in picking of AKI post- liver transplantation patients than NGAL .

PP-84 LIVER BIOPSY IN LIVING DONORS AND CORRELATION WITH BMI

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Purpose: Steatosis in donor liver increases the risk of graft dysfunction; therefore, assessing the percentage of steatosis is crucial before liver transplantation. In living donor liver transplantation (LDLT) computed tomography (CT) has been used for volumetric and anatomic evaluation, and also for semi quantitative assessment of macrovesicular steatosis in donor liver. Liver biopsy is the gold standard for assessing steatosis in liver, however, it is invasive. Although steatosis can be associated with increased body mass index (BMI), it is crucial to institute certain criteria for liver biopsy to avoid performing unnecessary invasive procedures. The aim of this study was to evaluate the usefulness of protocol liver biopsy in donors with increased BMI.

Material and method: Between January 2005 and December 2017, 270 donor candidates for LDLT underwent US-guided liver biopsy. One hundred and two donors were excluded) liver biopsy due to the presence of Hepatitis B core antibody or other occult liver diseases. (A radiologist blinded to histological grading calculated mean CT hepatic attenuation for assessing steatosis in all donors. Donors were divided into 3 groups according to BMI and steatosis on CT: BMI $27.5 >$ and steatosis % $5 <$ on CT (Group 1, n=40), BMI ≥ 27.5 and no steatosis on CT (Group 2, n=93), and BMI ≥ 27.5 and steatosis % $5 <$ on CT (Group 3, n=35).

Findings: There was no correlation between BMI and hepatic steatosis ($> 5\%$). Thirty-eight (77.5 %) donors showed hepatic steatosis in Group 1, 37 donors (39.4%) in Group 2, and 30 donors (85.7%) in Group 3. Donors in group 2 had significantly lower hepatic steatosis compared with donors in group 1 and group 3 ($p=0.000$). Thirty-one (77.5 %) of the donors with BMI < 27.5 had hepatic steatosis, however, 67 (52.3 %) of the donors with BMI ≥ 27.5 had hepatic steatosis.

Conclusion(s): Liver biopsy remains a gold standard for evaluation of hepatic steatosis. BMI alone is not a good predictor of hepatic steatosis in our study population. Biopsy may be reserved for donors with steatosis on CT.

PP-85 EFFECT OF DURATION OF ICU STAY ON OUTCOMES OF ADULT LIVING DONOR LIVER TRANSPLANT RECIPIENT

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Kasr Alainy

Purpose: The present study was aiming to evaluate the effect of the duration of ICU stay on the morbidity and mortality of living donor liver transplantation

Material and method: 49 Egyptian patients with hepatitis C virus underwent living donor liver transplantation divided into: the first group included patients needed ICU admission for more than seven days while the second group included those who needed ICU for less than 7 days. Fluid balance and kidney functions were assessed at the timing of transplantation and through following up of the patients 3 months and 1 year later after transplantation.

Findings: Significant correlation between Child score of the patients, presence of pretransplant renal impairment, duration of mechanical ventilation needed by patients and use of Mycophenolate mofetil as part of combined immunosuppressive drug therapy and duration of ICU stay on both long term and short term survival following transplantation

Conclusion(s): The factors resulting into prolonged duration of ICU stay in our cases had an impact on outcome of liver transplantation.

PP-86 OUTCOME OF KIDNEY TRANSPLANTATION IN CHRONIC VIRAL HEPATITIS, SINGLE CENTER EXPERIENCE IN TURKEY

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Purpose Chronic hepatitis B and C are very common in hemodialysis patients and kidney transplantation recipients. For a long time renal transplantation has been made to chronic hepatitis patients but there is a high risk for reactivation, fulminant hepatitis and progression to cirrhosis. There is also a concern about graft survival. There is a lot of patient in waiting list for kidney transplantation and many of them are lost during waiting. Kidney donation from HBsAg positive donor is still controversial but a very wide pool for donation in CHB endemic areas.

Herein, we evaluate the treatment approach and hepatitis reactivations of renal transplant recipients with chronic hepatitis

Material and method: 15 HBsAg(+) and 9 HCV RNA(+) patients without cirrhosis was included. HBV reactivation was defined as 2 Log10 IU/mL increase HBV DNA or detectable HBV DNA in patients with negative HBV DNA before; HCV reactivation was defined as an increase HCV-RNA 1 log10 IU/mL HCV RNA. Hepatitis flare was defined as increase of ALT above three times the upper limit of normal.

Findings: HCV RNA(+) 9 patients were included. After renal transplantation, 4 patients (44%) were followed without treatment and during follow up ALT levels were normal. Three patients (33%) were treated with paritaprevir/ ritonavir/ ombitasvir with dasabuvir and 2 patients (22%) were treated with ledipasvir/ sofosbuvir. During treatments with new drugs no serum creatinine progression or drug adverse effect were observed.

15 HBsAg(+) renal transplant recipients were included. 11 patients' (73%) treated with lamivudin and during follow-up hepatitis B reactivation occurred in 5 of them (45%). YMDD lamivudin resistance gen was detected in all of them and tenofovir started. All of reactivations treated successfully, HBV DNA titers become negative and ALT levels decreased into normal range after tenofovir. There was also no serum creatinine progression after tenofovir. No reactivation was seen in patients treated with tenofovir or entecavir initially.

Conclusion(s): With all of these concerns, chronic viral hepatitis is not an absolute contraindication for renal transplantation but patients should be instructed about drug toxicity, liver failure symptoms and regular visits with short periods must be done to appreciate immunosuppressant drug levels, HBV DNA / HCV RNA, ALT, liver function tests, eGFR and serum electrolytes.

PP-87 OUTCOME OF KIDNEY DONATION FROM HBSAG POSITIVE DONOR, SINGLE CENTER EXPERIENCE IN TURKEY

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Purpose: Chronic hepatitis B and C (CHB and CHC) are global health problem. There is a lot of patient in waiting list for kidney transplantation and many of them are lost during waiting. Kidney donation from HBsAg positive donor is still controversial but a very wide pool for donation in CHB endemic areas. Herein, we evaluate the treatment approach and hepatitis reactivations of our cases about kidney transplantation from HBsAg(+) donors to HbsAg(-) recipients.

Material and method: We transplanted 6 subjects from 6 HBsAg(+) donors. We evaluated serology, HBV DNA and HCV RNA titers, alanine transaminase (ALT), serum creatinine and immunosuppressive regimes retrospectively. HBV reactivation was defined as 2 Log10 IU/mL increase HBV DNA or detectable HBV DNA in patients with negative HBV DNA before. Hepatitis flare was defined as increase of ALT above three times the upper limit of normal.

Findings: In our center, 6 renal transplantations from HBsAg (+) donors to HbsAg (-) recipients were made between 2002 and 2016. Four patients were vaccinated and their anti-HBsAg titer were > 10 IU before transplantation. During follow-up, anti-HBc became positive in three of them (75%). Two patients were anti-HbsAg (+), anti-Hbc (+) and HBV DNA (-). Lamivudine prophylaxis was used in 5 patients and tenofovir prophylaxis was used in one patient. No patient's ALT was increased above upper limit of normal or HBV DNA became positive during follow-up.

Conclusion(s): 3anti-HBc (-) patients became anti-HBc (+) and that is probably the evidence of HBV transmission. During follow-up, no patients had hepatitis flare as in other studies. Under the nucleoside analog prophylaxis kidney transplantation from HBsAg (+) donor seems safe. This pool can decrease waiting time on cadaveric transplantation list and increase the living donation.

PP-88 CANDIDA UTILIS PERITONITIS AFTER LIVER TRANSPLANTATION: A RARE FUNGAL PATHOGEN

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Purpose: Candida peritonitis is a life-threatening infection after liver transplantation. Candida utilis is a commercial food additive and rarely can cause invasive infections in humans. Up to date, only a few cases have been reported and there is little information about Candida utilis infections among transplant recipients.

Material and method: Case report

Findings: A 55-year-old male with Hepatitis B and alcohol associated decompensated liver cirrhosis and who have had history of frequent spontaneous bacterial peritonitis, underwent cadaveric liver transplantation. After surgery, the patient was monitored closely in the intensive care unit for two days. Ampicillin-sulbactam was administered for surgical prophylaxis. Immunosuppressive regimen was prednisolone, tacrolimus and mycophenolate. On the postoperative fourth day, the patient underwent laparotomy because of abdominal distention and worsening general condition. In the course of operation, fibrinoid dense fluid was seen in the intraabdominal space. Intravenous carbapenem, linezolid and anidulafungine was started with a 200 mg loading dose followed by a maintenance dose of 100 mg daily empirically because of suspected intra abdominal infection, high level of C-reactive protein (CRP) and repetitive surgical operation, Candida utilis was identified in fungal culture of intraoperative peritoneal lavage specimen with Vitek® 2 Advanced Expert System (Biomerieux France). On nineteenth day of transplantation, dense and septate fluid with a thickness of 20 cm was detected in intraabdominal cavity by ultrasonographic screening. Candida utilis was identified from peritoneal fluid culture again. Dense peritoneal fluid persisted despite appropriate treatment and this fibrinoid fluid obstructed periton drainage catheters. One month after transplantation, the patient underwent third laparotomy because of bad clinical course, fever and abdominal distention. Intraoperative peritoneal fluid samples and drainage catheters were taken for bacterial and fungal cultures. MDR Acinetobacter baumannii was identified from first catheter and peritoneal fluid, Candida utilis was identified from second and third catheter, both MDR Acinetobacter baumannii and Candida utilis were identified from second peritoneal fluid sample. Antifungal therapy was switched to micafungin with a dose of 150 mg daily and colistin and carbapenem was started due to culture results and treatment failure with anidulafungin. Carbapenem and colistin continued for 4 weeks and total antifungal treatment continued for 8 weeks. At the end of treatment CRP decreased to normal level and peritoneal fluid thickness decreased to 1 cm.

Conclusion(s): The patient presented in this paper was able to finally recover after a long period of treatment and three surgical operation. He was alive and with good graft function at 1-year follow-up.

PP-89 LIVER GRAFT AND SPLEEN ELASTOGRAPHY AFTER LIVING LIVER TRANSPLANTATION

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Purpose: The aim of this study was to investigate dynamics of liver graft and spleen stiffness after living liver transplantation.

Material and method: Fourteen cirrhotic patients who received living donor liver graft were studied. Spleen and liver stiffness measured by Supersonic Aixplorer Multi Wave before and at 1, 3 and 6 month after transplantation. Spleen and liver stiffness measurement was similar, so, median of more than 10 measurements with more than 60% succes rate were accepted as stiffness criteria.

Findings: Before transplantation median liver and spleen stiffness were 27 (14-31) kPa and 51 (38-92) kPa, respectively. After transplantation spleen stiffnes decreased gradually in all patients and were 40,3, 35,4 and 24,1 kPa at 1, 3 and 6 month respectively. Liver graft stiffness were stable at 4-5 kPa level after 1 month in uncomplicated patients, but was elevated (≥ 7.5 kPa) in resipents with complications. In 5 of these patients endoscopic examination showed resolution or significant decrease of preoperatively discovered varices.

Conclusion(s): Graft and spleen elastography may be referred as a useful follow-up tool for patients after living liver transplantation.

PP-90 CAN WE MAKE IT WITHOUT POSTTRANSPLANT ANTIBIOTIC PROPYLAXIS FOR OPPORTUNISTIC INFECTIONS IN LIVER RECIPIENTS?

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Purpose: Varying durations of posttransplant antifungal and PCP prophylaxis are commonly used in liver transplantation (LT). Over the last two decades, due to better understanding of liver allograft rejection, less aggressive immunosuppression has been given following LT. Here, we aimed to investigate the posttransplant prevalence of opportunistic infections (fungal, *pneumocystis jirovecii* and others) in our non-prophylaxis adult LT recipients.

Material and method: Between January 2013 and June 2017, clinical and microbiological data of 99 adult LT recipients were retrospectively reviewed. The median follow-up time was 22,5 months (range 3-63,5 months). Eighty-six percent of LT were from living related donors. The mean preTx MELD score was $19,2 \pm 5,5$. A low-dose tacrolimus based protocol with early withdrawal of steroid and MMF were used. Twenty-two (%22,2) recipients were treated with bolus steroids (2 gr) for clinical acute rejection. None of the patients received posttransplant antifungal or anti PCP prophylaxis.

Findings: Posttransplant fungal infection was detected in 8 recipients with a median of 46 days after transplant (range 10-448 days). No PCP was detected. Sources of fungal growth was urine (n=4), wound (n=2), BOS (n=1, aspergillus) and abdominal collection (n=1). Most common pathogen was *Candida albicans* (87,5%). All patients were recovered after treatment.

Conclusion(s): Improvements in patient selection, surgical technique, posttransplant management and modifications to lower immunosuppression lead to decline in risk of infections after liver transplant. Preemptive approach instead of standard antifungal or anti PCP prophylaxis may be followed without negative consequences.

PP-91 REASONS WHY ORGANS FROM DECEASED DONORS WERE NOT ACCEPTED FOR TRANSPLANTATION

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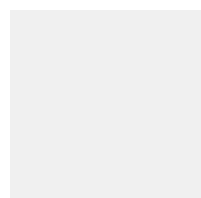
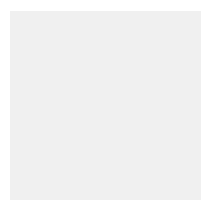
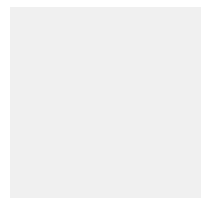
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Purpose: The rate of organ donations from deceased donors in Turkey is among the lowest in the world. We analyzed the reasons, why some potential donors whose families had given consent did not become actual solid organ donors.

Material and method: We retrospectively reviewed the organ donation, retrieval and transplantation registries of 102 potential donors from Ministry of Health Organ and Tissue Transplant Coordination Center of Istanbul Region in 2015.

Findings: Cardiac arrest occurred in 16.6% (n:17) of the potential donors while waiting for organ procurement. For the 102 deceased potential donors the organ specific suitability ratio was 83% for kidneys, 82% for liver, 72% for heart, and 75% for lungs; and of these suitable organs the transplantation rates were as follows: kidneys 88%, liver 70%, heart 30% and lungs 13%. Medical reasons (donor unsuitable) (14%-24%) and poor organ function (2%-24%) consisted the majority of the reasons of not being accepted for transplant. These reasons included diabetes insipidus and electrolyte imbalance caused by neuro-humoral changes, inotrope/vasopressor requirement for hemodynamic instability, hypoperfusion and myocardial dysfunction after brain death.



Conclusion(s): The mismatch between organ donation and demand is a major problem worldwide. In addition to low organ donation rates, late diagnosis of the potential donors or inappropriate management of the pathophysiological consequences of brain death diminish the transplantable organ number even more in our country. In order to overcome these setbacks we need education programs for quality improvement and to decrease donor losses in the ICU goal-directed protocol for the management of potential donors must be used.

PP-92 KNOWLEDGE LEVELS OF AND OPINION ON ORGAN DONATION AND TRANSPLANTATION IN ADULT

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Purpose: One of the important health problems of the human life is organ failure. The number of patients awaiting organ transplantation in the Turkey is significantly greater than the number of available organs(organ donors), resulting in the death of many patients awaiting transplantation. While organ donation from cadavers is 20-30 per one million in developed countries, it is 33.6 in Spain, 25.2 in Belgium, 14.1 in Canada, 16.2 in France, 4.5 in Greece, and 2 per million in our country. because of this low rate, in this study the researchers aimed to determine the knowledge levels and opinions on organ donation and transplantation in adult.

Material and method: We studied with 641 participants over 18 years old. A written questionnaire prepared by the researchers consisting of 21 questions in four categories was anonymously administered to public , in October –December 2017

Findings: Of the 641 respondents 52,4 % were woman and 41,6 %were men. The education level of the participants are 28,4% of primary school graduates, 35,3% of high school graduates, 35% of university graduates. 82,4 %had no chronic disease and 28 % of the family has no chronic disease. 24,2 % of participants declared to have adequate knowledge on Organ donation while remaining of 75.8 %had inadequate knowledge. It was revealed that the Biggest obstacles for organ donation is lack of information 86,3% and they willing to get information from hospitals 74,8%, beliefs 42.5%, chronic disease 29,7%. Most of the participants Rely state/university hospitals on organ donation 88,2%, while the rate declares to 43,1% for private hospitals/private university hospitals.

Conclusion(s): The education of the public regarding the need for organs and the safety of the brain stem death criteria, and of the professionals in communication with bereaved relatives, ought to be relatively straightforward and uncontroversial to arrange. There is a serious lack of information in our country in terms of organ donation and transplantation. People are aware of the importance of organ donation and transplantation and also they are aware of the lack of information. In order to increase the number of organ donors in our country, there is a need to organize serious information trainings on organ donation and transplantation

PP-93 BARRIERS TO BRAIN DEATH NOTICES FROM EMERGENCY DEPARTMENT

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Purpose: Despite the fact that organ transplantation rates are increasing all over the world, the number of patients waiting for organ transplantation continues to increase and the demand is not met. Emergency departments (EDs) are a new focus of interest in recent years as a possible candidate for increasing donations. However, it is known that emergency medicine physicians (EMPs) have difficulties in determining and notifying of brain death, and EDs are full of missed opportunities. In this study, we aimed to determine the barriers to potential brain death cases not notified by EMPs.

Material and method: The participants of the study consist of 252 EMPs including 169 (67.1%) specialist doctors and 83 research assistants (32.9%) who had answered the questionnaire send via e-mail.

Findings: The following causes were found in the questionnaire as per answered by EMPs. Lack of information of the society on the subject 63.1%, religious beliefs 57.5%, refusal of family members 57.1%, disruption of body integrity of the donor 45.6%, inadequate knowledge of doctors 50.4%, concerns with related to the accuracy of diagnosis of brain death 40.1%, fear of negative reactions from relatives of patients 37.7%, prejudice that the family will refuse the process 37.3%, absence of organ procurement unit (OPU) 36.5%, lack of ideal candidates 27%, increase in workload of doctors in EDs 23.8%, fear of legal problems arising 23.8%. Of the participants 19.4% did not have any idea about whether the OPU was exist in their hospital or not. 42.9% of the participants stated that the OPU was exist in their hospital. Only 15.8% of those who have an OPU stated that they have regular meetings or communications with the organ transplant team.

Conclusion(s): Most commonly observed causes of improper notification of brain death and potential donor candidates were found to be lack of information, prejudice and diminished coordination with donation authorities. Continuous education will reduce most of those problems in time. Constant cooperation of organ donation coordinators with EMPs and regular meetings to EDs will benefit the increasing the amount of notified brain death cases.

PP-94 ORGAN TRANSPLANTATION IN SUB-SAHARAN AFRICA. GHANA'S EXPERIENCE AND ADVANCES

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Ghana Health Service

Purpose: Ghana has recognized the need to develop policies and guidelines to address the menace of organ trafficking while promoting legal organ transplant services that will benefit patients. Challenges range from, cultural, disease burden, religious, financial, political and others including Human Resource, Logistics and Infrastructure. The is to share and highlight the road map developed by Ghana using UNDP capacity building steps to implement organ transplantation as many patients are helpless due to financial challenges and in part, the non-existence of a regulatory law on organ donation and transplantation standards.

Material and method: This is a descriptive analysis of efforts to implement organ transplantation in Ghana. A documentary review of existing protocols, standard operating guidelines, policies of Ministry of Health, Ghana Health Service, National Health Insurance, Faith-based Organizations and Teaching hospitals was conducted. An extensive online literature review in Google Scholar, PubMed search engines and others, on key concepts including, human tissue policy, transplants from living donors, transplants from deceased donors, national policies on organ transplantation and donation where performed. A scoping review of literature on organ trafficking, medical tourism, health insurance, international hospitals certification, disease burden and organ transplant in Ghana and global implication to worker performance and GDP, helped to conceptualise its impact as a public health concern.

Findings: The following has been undertaken: 1. National Organ Transplant Working Group has been formed including the private sector, Faith-based, traditional leaders, the Media, NGOs, CSO, National Health Insurance Authority and Individuals interested in organ transplant. 2. Needs assessment has been conducted. 3. Ghana has identified health facilities and specialties areas where organ transplant can be performed. 4. A National Organ Transplant Society is in its final stages of registration. 5. Ghana National Guidelines for Human Organs/Tissues donations and Transplantations has been developed. 6. Dialysis units have been established in some regions with the aim to scale-up to all regional hospitals. 7. Ghana has successfully performed some over 15 live donor kidney transplants with assistance from foreign medical teams since 2013

Conclusion(s): Ghana meets the necessary human resource, logistics and infrastructure for organ transplantation. Parliamentary approval of the developed Draft Human Tissue Act is necessary. Public engagement, especially, traditional and religious groups is vital for success.

PP-95 THE EFFECT OF SOCIAL MARKETING APPROACH ON ORGAN DONATIONS: AN ATTITUDE RESEARCH ON ABANT İZZET BAYSAL UNIVERSITY STUDENTS

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Abant İzzet Baysal Eğitim Ve Araştırma Hastanesi Tıp Fakültesi

Purpose: This study is a descriptive study designed to determine the attitude and behavior of Abant İzzet Baysal University, Faculty of Medicine students about organ donations and suggestions for the effectiveness of social responsibility campaigns relating to organ donation.

Material and method: 311 of 613 students studying at Abant İzzet Baysal University, Faculty of Medicine during the first semester of 2013-2014 academic year were reached using simple random sampling. As a means of collecting data; 6 questions in relation to socio-demographic information of the participants created on the basis of the literature (Argan MT, 2007), a questionnaire consisting of 81 questions measuring perception on organ donation and organ transplantation and a survey form of which reliability/validity is checked by Mehpare Tokay Argan (2007), were used. The chi-square test was used to evaluate the significance of the difference among numbers, percentages and qualitative distributions.

Findings: Of the students who participated in the survey; 53.7 % are female, 46.3 % are male; 36.4 % are between 26-28 years of age; 57.6 % live in cities and the majority (25.4 %) is made of sixth grade students. 51.5 % of the participants responded that they would (definitely) donate and 23.5 % responded that they were indecisive on the subject. As the knowledge level of students organ donation was examined, it is observed that many students have no sufficient knowledge on different aspects of organ donation. When the opinions of participants in relation to what is important to increase organ donation is asked, the highest average of responders is referred to "giving information on where to donate" (average: 4.20). "Giving health education on organ donation" (average: 4.18) and "giving information on the process of organ transplantation" (average: 4.00) are defined as the other important aspects. When the opinions of the students on organ donation were examined, it is observed that the highest mean (mean: 4.66) consists of responders who think that organ donation is a decent behavior. Among responders, on average, there are more women (4.15) than men (3.81) think positive on organ donation. ($p<0.05$)

Conclusion(s): This study confirms that students have no sufficient knowledge on organ donation, thus, education given to students on organ donation is inadequate. Examining the organ donation attitudes according to the socio-demographic information of the students, it was determined that attitudes towards organ donation is differed only by gender and women are more inclined to organ donation. The positive change in the attitude of all individuals towards organ donation is directly related to the effectiveness of social responsibility projects. In order to change the attitude towards organ donation positively; the social responsibility campaigns have to be more efficient. Within this scope; raising the number of campaigns for organ donation and enhancing the effectiveness of these campaigns are suggested. More emphasis on the importance of organ transplantation via media, and enhancing the positive perception on organ donation by this way is also suggested.

PP-96 FACTORS HINDERING ORGAN DONATION

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Introduction: In a country where moral, human and religious values are the foundation of society, organ donation is still a taboo and still not part of the culture of citizens.

Materials and methods: Survey using a questionnaire for medical and paramedical staff of university hospital structures involved in organ donation, including resuscitation and nephrology services, Casablanca University Hospital.

The 22 questions in the survey answered 5 topics: opinion, assessing the level of knowledge about organ donation, the explicit justification for the refusal, the statements made in case of refusal of organ donation and the means to encourage organ donation.

Results: Of those surveyed, 30.3% were men and 69.7% were women. The average age was 25.5 years. Of those surveyed, 91.9% were aware of kidney transplant 85.4% were aware of legislation governing organ donation and transplantation. One-quarter thought that the taking and transplantation was done only in authorized public health establishments. More than half of the people agreed to give their organs after death. Among the group of respondents refusing the donation of their organs after death, religious obstruction was at the top of the list of determinants of refusal with a prevalence of 35.7%.

Discussion: Chronic diseases are long-term conditions that generally progress slowly, responsible for 63% of deaths and require expensive and expensive treatment. Among them, heart failure has been estimated at 2.3% in the adult population and 1.8% in our entire population, it also highlights the chronic kidney failure that presents a public health problem, the best solution is the transplant, an option that delivers the patient from the stress of hemodialysis and allows him to regain a life with better quality.

Conclusion: The most important factors that hinder organ donation in our country are information and communication factors, legislative factors, human resource factors, psycho-emotional factors, organizational factors, and socio-cultural factors.

PP-97 DIAGNOSIS OF BRAIN DEATH BY TRANSCRANIAL DOPPLER SONOGRAPHY

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Purpose: The aim of this study was to investigate the use of transcranial doppler (TCD) for diagnosis of brain death in patients admitted to the intensive care unit. The most important step for organ donation is to diagnose the brain dead patient fast and precisely. In our country, only clinical tests are sufficient in diagnosis, but in many cases, the clinician needs supportive tests. The most commonly used supporting tests in diagnosis are cranial MR angiography, cranial CT angiography, EEG and TCD. TCD is ahead of the others because it's non-invasive, it can be applied bedside, no contrast material and low cost.

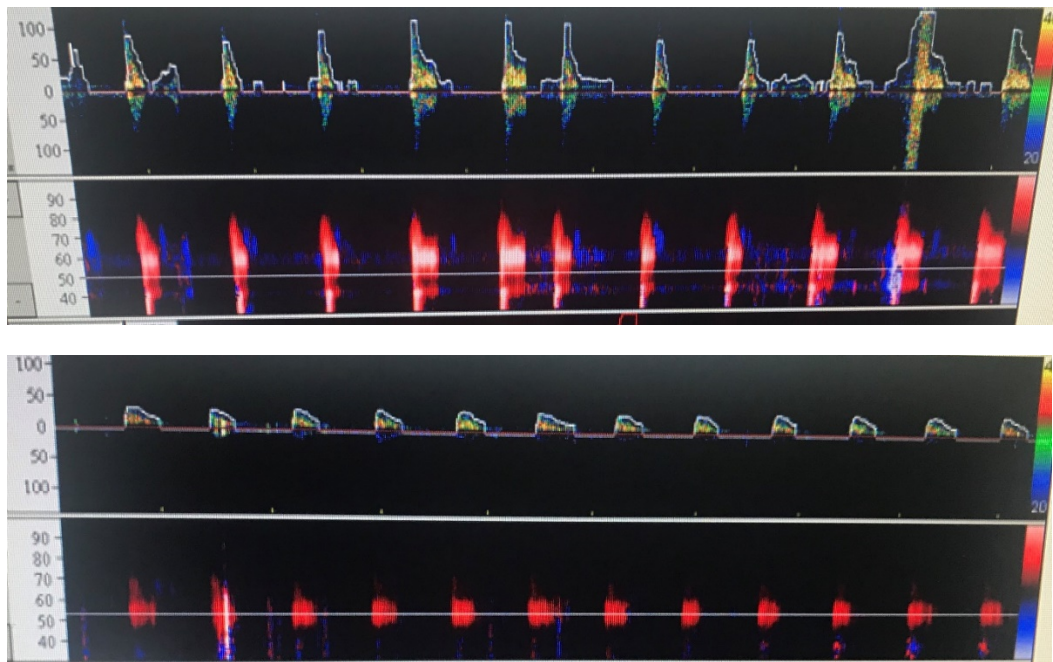
Material and method: This study was conducted in the intensive care unit of İstanbul Goztepe Education and Research Hospital. The TCD (Compumedics DWL Germany QL system) using a 2 MHz PW probe was attempted in 24 cases that fulfilled the clinical criteria for brain death. All cases were comatose with Glaskow Coma Scale (GCS) of 3. There were no brain stem reflexes, including oculovestibular, oculoccephalic, corneal, oculomotor, gag and cough reflexes. Atropine and apnea tests were additional diagnostic tests preceding TCD. Donors data including age, sex and cause of brain death were recorded. The TCD waves were monitored for each patient via temporal window for middle cerebral artery (MCA) as soon as brain death was diagnosed. Oscillating flow or systolic spikes in addition to reversed diastolic flow were considered as indicatives of brain death.

Findings: The mean age of 24 brain dead cases was 43±17 years (range 16-74 years) and 11 (45,8%) of them were males. Causes of brain death were as follows: intracerebral hemorrhage (n:12), head trauma (n:4), subarachnoid hemorrhage (n:4), cerebellar infarct (n:1), anaphylactic shock (n:1), status epilepticus (n:1) and post resucitation syndrome (n:1). TCD were performed by intensivists (58,4%) while others were done by neurosurgeons (41,6 %). Table 1 shows donors' demographics and TCD performing specialists. The typical ultrasonic patterns of cerebral flow cessation was systolic spike in 18 (75%) and oscillating signal in 6 (25 %) of cases. In addition, reversed blood flow in diastolic phase was observed in 8 (33 %) brain dead donors. There were no false negative or false positive results.

Conclusion(s): This study showed that TCD is a reliable test for diagnosis of brain death.

Table 1: Patient demographics and clinical data

Characteristics	Results
Age (mean ± sd)	43 ±17
Sex	
Male n:11	45,8 %
Female n: 13	54,2 %
Causes of brain death	
Intracerebral hemorrhage n:12	50 %
Head trauma n:4	16,6 %
Subarachnoid hemorrhage n:4	16,6 %
Cerebellar infarct n:1	4,2 %
Anaphylactic shock n:1	4,2 %
Status epilepticus n:1	4,2 %
Postresuscitation syndrome n:1	4,2 %
TCD performed by	
Intensivists n:14	58,4 %
Neurosurgeons n:10	41,6 %



PP-98 OPINION OF HEMODIALYSIS PATIENTS IN REGARD TO ORGAN DONATION: A TRIAL FROM MEDICINE FACULTY HOSPITAL OF ABANT IZZET BAYSAL UNIVERSITY

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Abant Izzet Baysal Eğitim Ve Araştırma Hastanesi Tıp Fakültesi

Purpose: This study with descriptive feature has been performed with patients receiving hemodialysis treatment in Medicine Faculty Hospital of Abant Izzet Baysal University to inquire their opinions about organ donation and transplantation.

Material and method: Population of this descriptive study was formed by 32 patients receiving hemodialysis treatment in Medicine Faculty Hospital of Abant Izzet Baysal University and all subjects were reachable. Data collection form in accord with literature was applied to the subjects admitted to participate in the study by researchers with face to face meeting technique. Chi-square test was used to evaluate whether there was a significant difference among variables in number, percentage and qualitative distribution.

Findings: It was revealed that participants were mostly middle-aged or elderly, %31, 3 of them were women and %68.7 were men. A large proportion of patients were found to have a primary school or high school education. Average time for receiving hemodialysis was mostly between 5 and 8 years and %68.8 of those patients had no an application for organ transplantation. Moreover, %56.2 of those participants were unwilling to be an organ donor because most of them (%53.1) assumed they couldn't be a donor due to their current disease. Furthermore, there wasn't a significant difference between having an education of organ donation and donating an organ ($p=0,688$; $p>0, 05$). In addition, there wasn't a significant difference between level of education and making an organ donation ($p=0,117$; $p>0, 05$).

Conclusion(s): As a conclusion, it was found that most of the participants had no an application for organ donation. It was suggested that their decision regarding organ donation was affected by being at older ages. Besides, most of them weren't voluntary for making an organ donation because they assumed they couldn't be a donor due to having a kidney disease and it was suggested that lack of education about organ donation caused to high levels of unwillingness. Coordinating educational activities, building posters and leaflets for participants and their relatives in order to improve an attitude about organ donation will provide a positive approach for organ donation.

PP-99 ORGAN DONATION: EPIDEMIOLOGICAL FACTORS INFLUENCING CONSENT OF FAMILIES OF BRAIN-DEAD PATIENTS

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Introduction: The development of cadaveric kidney transplantation has increased access to Transplantation in the absence of a living donor. However, The main barrier is the refusal of families of patients in the state of Brain death.

Materials and methods: This is a retrospective monocentric analytical epidemiological study in September 2010 to September 2017, including all brain-dead patients Whose families were approached for a possible organ donation. Consenting families (A) and those refusing the donation (B). The objective of This work was to compare these two groups to determine the existence of Epidemiological factors influences on consent to donation. Results: 61 patients were identified as potential donors, 35 families refused donation (57.4%) and 26 agreed (42.6%), the delay between the announcement of brain death and the issue of organ donation was the same for all. There was not significant difference in relation to male sex ($p = 0.26$), nor to family status ($P = 0.9$), the cause of death according to whether it was traumatic or medical Statistically has no significant influence ($p = 0.63$). However, the mean age was Significantly higher in the group refusing donation ($p = 0.02$), with a duration Of mean stay in intensively resuscitated patients was significantly shorter ($p = 0.03$).

Discussion: The significantly shorter mean age for the consenting group is compatible with the American and Dutch study data, and would be related to the Assumption that their young parents might have wished to donate their organs Without having had time to express it during its lifetime. The greater refusal rate Observed in shorter stays in resuscitation could be associated with a time Acceptance of cerebral death in one hand, in the hand the idea of these concepts are not always clear to families.

Conclusion: Due to the widening gap between the growing demand for transplants in Renal disease and the scarcity of grafts, the organization of campaigns should raise awareness of The importance of organ donation to the society

PP-100 RED CELL DISTRIBUTION WIDTH IN DIAGNOSIS OF BRAIN DEATH

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Purpose: Brain death is a clinical diagnosis. However, supportive tests with radiological imaging may be needed during the diagnosis process. Red cell distribution width (RDW) may be useful as a biomarker that supports the diagnosis of brain death. Previous studies have indicated that the RDW was associated with mortality and other severe adverse outcomes of cardiovascular disease, severe acute pancreatitis, traumatic brain injury and many other diseases. These researches inspired us to explore whether RDW could be used as a supportive diagnostic biomarker for diagnosis of brain death. Our hypothesis is; an increase in the RDW value may support the diagnosis of brain death.

Material and method: After approval of the ethics committee, 210 patients who had been diagnosed with brain death between January 2012 and July 2018 were retrospectively reviewed. The RDW% values of patients on the day of admission, brain death and cardiac arrest were recorded. In the hospital archive records, 209 patient data were used for statistical evaluation since a patient had no RDW% value. Statistical analysis of the study was done using the SPSS statistical program.

Findings: Statistical analysis revealed that the RDW% values on the days of brain death and cardiac arrest were significantly higher than the RDW% of the patients admission day. In addition, the RDW% value for the cardiac arrest day was significantly higher than the RDW% on the day of brain death ($p < 0.000$). The results are indicated in Tables 1, 2.

Table 1 .Demographic and baseline values

	n=210
Age	17,5 ± 55,13
Gender	
M	(55,2) 116
F	(44,8) 94
RDW % on admission day (n=209)	2,1 ± 14,36
RDW % on BD day (n=209)	2,4 ± 15,37
RDW % on Cardiac arrest day (n=209)	2,5 ± 15,76

,BD; brain death ,M; male, F; female, RDW; Red cell distribution width ,(%)SD, number ± Values are given as mean

% Comparison of RDW .Table 2

	% RDW	p
Admission day	2,1 ± 14,36	

Brain death day	2,4 ± 15,37	* 0,000
Cardiac arrest day	2,5 ± 15,76	& * 0,000

RDW; Red cell distribution width, Values are given as mean ± SD

** $p < 0,0001$ When compared with the arrival RDW % value*

When compared with the brain death RDW % value $0,0001 > p$ &

Conclusion(s): As a result; we can say that the increase in RDW% value, which is reported to be a mortality indicator for many diseases, is a supporting biomarker for brain death diagnosis, if not alone, when brain death is evaluated together with clinical diagnostic criteria.

PP-101 FIGHTING FOR LIFE INSIDE A DEATH BODY: A MATERNAL BRAIN DEATH CASE PRESENTATION

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Purpose: Ethical and medical practices that should be done after maternal brain death have been discussed in our case.

Material and method: 19 weeks pregnant patient , hospitalized to the intensive care unit with intracranial mass, intraventricular hemorrhage. EVD was inserted into the patient who underwent an emergency operation by neurosurgery. The control TCD was consistent with brain death. The family was interviewed for organ donation but it was not accepted, the husband asked for a religious opinion and wanted the continuity of pregnancy. During the gestational evaluation on the 24th week of pregnancy, the support was ended upon the exitus of the fetus

Findings: The maintenance of support in brain death is ethically controversial. The use of the mother as a fetal incubator is considered to violate autonomy and the right of integrity of the body. The legal limit of the life of the fetus is also important here. In another opinion; that the mother is not harmed, that the fetal harmlessness-benefit is the continuation of the support and ethical, if there is a chance for the fetus to live. On the other hand; the ethical reason is that the mother is a potential organ donor, the fetus being among the beneficiaries of the donated organs. Another point; for mother not to terminate her pregnancy in her health is an ethical reason for continuing the support

Conclusion(s): We think that the ethical and medical challenges we are discussing will help others in similar situations.

PP-102 SAFETY AND EFFICACY OF APNEA TEST AND ANCILLARY TEST FOR DIAGNOSIS OF THE BRAIN DEATH

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Purpose: Brain Death (BD) is defined as the irreversible and complete loss of all functions of the brain, including the brainstem. Apnea test and/or ancillary test is used together with a neurological examination for the diagnosis of BD. Our aim in this study was to determine the safety and efficacy of using the apnea test to diagnose brain death comparing with cranial CT angiography and to present demographic data and profiles of patients who underwent apnea testing in in our ICU.

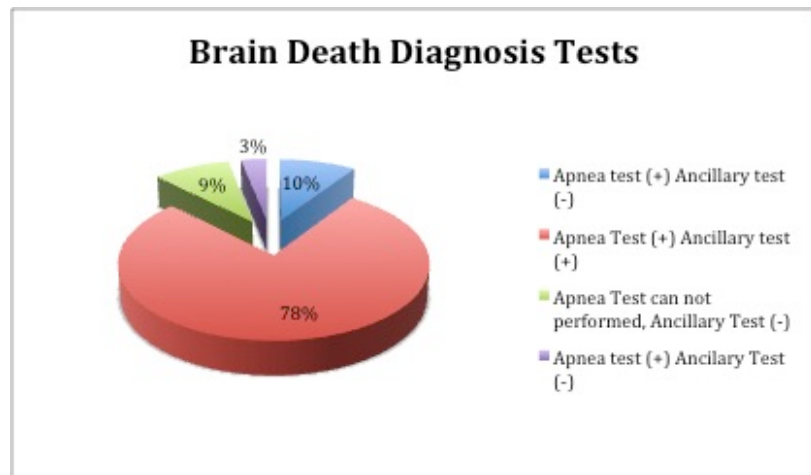
Material and method: Patients who underwent apnea test and cranial CT angiography for the diagnosis of brain death were retrospectively investigated in Tepecik Training and Research Hospital anesthesia ICU from 01.01.2015 and 01.01.2018. The study assessed the age, sex, and brain blood flow of patients who underwent apnea testing for the diagnosis of brain death. The study used SPSS (Statistical Package for Social Sciences) for Windows 11.0 program.

Findings: 32 patients underwent apnea test in anesthesia ICU for BD diagnosis. All patients with a positive Apnea test were administered CT angiography as an ancillary test. Although 3 patients had positive apnea test, blood flow was detected in CT angiography and BD was not declared. By repeating the apnea test, one patient was diagnosed with BD without ancillary testing. In three patients whose apnea could not be tested, BD was diagnosed by ancillary test. In 25 of 32 patients, the apnea test was seen to be compatible with the ancillary test.

Table 1. Demographic Datas in Anesthesia ICU

Table 1. Demographic Datas in Anesthesia ICU					
	Number (n)	Age		Brain Death (n)	
		sd±Mean	Median (min,max)	Positive (n)	Negative (n)
Male	20	17.7±49.5	(15,76) 53	18	2
Female	12	12.1±52.8	53.5 (31,70)	11	1
Total	32	15.7±50.8	(15,76) 53	29	3

Figure 1. Brain Death Diagnosis Tests Compatibility



Conclusion(s): In recent years, clinicians have been more concerned about the accuracy of this test and stated that potential complications are more common than stated. The detection of blood flow in 3 patients with positive apnea test is questioning the safety of this test. Although there is a need for extensive series of work in this area, we believe that apnea test still seems to be safe when provided appropriate conditions.

PP-103 CONFIRMATION OF BRAIN DEATH IN ED

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Purpose: Organ transplantation is often the only treatment for most patients with end state organ failure. Although many studies have been made regarding the motivation of potential donors, their families and health care professionals, organ donation rates still could not be increased adequately. One of the main reasons of the shortage of organ donor is that potential brain death is not detected and reported. Emergency physicians have important role in identifying and referring potential brain death.

Material and method: We presented three cases who were referred to Organ Procurement Organization (OPO) from our Emergency Department in the first six months of 2018

Findings: First case was 20 years old female , second one 39 years old female. Both cases committed suicide by hanging themselves. Third case was 60 years old and she had brain tumor. Therefore family consent was not asked. These patient could'nt be hospitalized in intensive care unit (ICU) because of the insufficient bed. After brain death confirmed with apnea test and Computerize Brain Angiography and family consent was obtained, the patients were transfered to operating room from emergency service. Two kidneys, heart and liver of first case and two kidneys and liver of second case were succesfully transplanted to patients which were selected by the Tissue and Organ Transplantation Coordination Center.

Conclusion(s): The Emergency Physicians should have sufficient knowledge and competence to identify and refere the potential brain death. The awareness of the emergency physicians about this theme, may lead to decrease of the shortage of organ donor.

PP-104 CAN NEUTROPHIL LYMPHOCYTE RATIO (NLR) BE A NEGATIVE MARKER FOR ORGAN DONATION IN BRAIN DEATH RESULTING FROM TRAUMATIC BRAIN INJURY?

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Aksaray University Medical Faculty

Purpose: Severe traumatic brain injury (TBI) is associated with high mortality and morbidity rates and is one of the leading causes of death in the intensive care units(ICU). Brain death can occur in patients who are followed up in ICU after TBI. The neutrophil lymphocyte ratio (NLR) has been reported to be a predictor of outcome in TBI. In this study, we investigated whether NLR could be a negative marker for organ donation after brain death.

Material and method: The data from patients who were treated in the ICU of Aksaray Education and Research Hospital of Aksaray University between 2011 and 2018 were evaluated retrospectively. Twenty patients with brain death were included. Of these, eight were eligible for organ transplantations. Acute and subacute laboratory findings were compared.

Findings: NLR values in acute and subacute stages were found significantly lower in cases of organ transplantation. Multivariate logistic analyzes showed that higher NLR was associated with unfavorable outcomes.

Conclusion(s): NLR may be useful as a negative marker for organ donation in brain death after in severe TBI.

PP-105 THE COMPATIBILITY OF ORGAN DONATION GROWTH VIA PUBLIC EDUCATION AND TEAMWORK; THE CASE OF BURDUR URBAN CENTER

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Purpose: The aim of this study is to answer the question whether the systematic, ongoing public education and teamwork on "The Importance of Organ Donation" will increase or decrease the number of organ donations.

Material and method: In our study, organ donation records of the last 7 years in Burdur province and the public records on the official site of Ministry of Health were evaluated retrospectively. According to these data, the numbers of organ donation in Burdur were compared with those of 2012.

Findings: Number of people who have been trained on "The Importance of Organ Donation" in Burdur Province; 350 person in 2012, 1580 person in 2013, 2100 person in 2014, 2800 person in 2015, 3610 person in 2016, and 3340 person in 2017. According to official data of the Ministry of Health; while the number of organ donation held in Burdur province in 2012 was 191, it was observed that it reached 838 in 2013, 1054 in 2014, 1542 in 2015, 1646 in 2016 and 1489 in 2017

Conclusion(s): When the data obtained from this study were analyzed, it had been concluded that the management of organ donation team effectively and systematic, continuous implementation of public education throughout the year increases the numbers of organ donation.

PP-106 POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME (PRES) IN A 5-YEAR-OLD CHILD: A CASE REPORT

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Introduction: Posterior Reversible Encephalopathy Syndrome (PRES) is a neuroradiological syndrome. Etiologically, renal failure, fluctuations of blood pressure, blood transfusions, cytotoxic drugs, autoimmune diseases, preeclampsia and eclampsia have been identified to be causally related to PRES. Herein, we present a pediatric liver transplanted patient who developed PRES following blood transfusion while receiving low dose tacrolimus therapy.

Case presentation: A 5.5-year-old boy weighing 18.5 kg with biliary atresia who had been operated with Kasai procedure at 54 days of life received liver transplant from a living donor in March 2018 due to frequent cholangitis episodes, portal hypertension and hypersplenism. Perioperative routine steroid therapy was supplemented with tacrolimus treatment at postoperative day 1. The patient was transferred from the ICU to the ward on postoperative day 2 and received blood transfusion with 250 cc RBC (red blood cell) suspension on day 4 due to Hb of 6.3 g/dL. Six hours after the completion of transfusion, he developed sudden unresponsiveness to verbal and painful stimuli, staring at a fixed point with eyes open while receiving tacrolimus 1 mg 2x1 at a tac level of 4.46 ng/mL. Physical examination at that time showed arterial BP of 150/100 mmHg, loss of vision and hearing, isochoric pupils and positive pupillary light reflex. He was rapidly transferred to the ICU with immediate initiation of IV magnesium sulfate, midazolam and nitroglycerin infusion treatments. Cranial MRI scan showed increased signal intensity on T2-weighted and FLAIR sequences of the posterior fossa, posterior segments of both cerebral hemispheres, supratentorial area, posteromedial segments of the occipital lobe bilaterally with greater hyperintensity on the left and left inferior temporal lobe, predominantly at the cortical zones. Diffusion-weighted imaging showed restricted diffusion along with increased signal intensity which was visible specifically at temporal and left occipital lobe medial segments. No signs of restricted diffusion were detected in other hyperintense areas. On MR angiography, mild thinning of MCA (middle cerebral artery) M3 branches specifically in the left temporal zone and overall lumen patency of the vascular structures were visible. These observations were considered to be consistent with PRES in conjunction with acute ischemic findings in medial occipital lobe and inferior temporal. Tacrolimus therapy was stopped. Treatment was maintained with intravenous magnesium sulphate, antihypertensive medication and low dose midazolam infusion. The patient was normotensive on the first day of treatment and IV nitroglycerin and midazolam infusion treatments were gradually discontinued. Oral enalapril therapy was initiated. His graft functions were normal and cyclosporin A (CyA) 2x50 mg was added to the treatment. His vision and hearing improved within 12 hours without recurrence of neurological problems. Follow-up MRI examination on day 10 showed near-complete regression of symptoms in the previously affected areas in comparison to prior MRI scans and no pathological signals were detected on diffusion-weighted MRI. His antihypertensive treatment with p.o. enalapril was discontinued and the patient was discharged. Upon strong family concern over the side effects of the treatment (gingival hypertrophy and excessive hair growth), cyclosporin was stopped and tacrolimus therapy reinitiated with no recurrence of these clinical manifestations. The patient is currently being followed at our outpatient clinic without any subsequent problems.

Conclusion: PRES is a rare condition with acute clinical neurological manifestations. While full recovery is generally achieved, neurological deficit may still remain in cases complicated with intracranial hemorrhage. Early diagnosis and treatment, adjustment or modification of CNI dosage and blood pressure control are crucial for management of PRES.

PP-107 CONSISTENCY OF CLINICALLY DIAGNOSIS AND ANCILLARY TESTS FOR BRAIN DEATH

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Purpose: Brain death implies the permanent absence of cerebral and brainstem functions. Any condition causing permanent widespread brain injury can lead to brain death.

Because the whole brain death is accepted in most of the countries, it should be shown that there is no blood flow in all brain regions even besides the brainstem by using the confirmatory tests. Therefore while the main diagnostic philosophy is universal, institutional protocols for diagnosis in the context of confirm the situation by using the laboratory tests could not be universal. Lack of cerebral circulation is an important confirmatory test for brain death (BD). Conventional angiography remains the gold standard imaging method, but CT angiography (CTA) is emerging as an alternative.

Material and method: The patients in our intensive care between 2012-2018 have been evaluated retrospectively .Twenty two patients who were assessed as brain death and additionally, 12 of them had ancillary tests for BD for certain diagnosis investigated .Demographic data, initial causes , and the following were recorded for all patients.

Findings: We aimed to evaluate the incompatibility to diagnosis of brain death by clinical and ancillary tests (computerized tomography angiogram (CTA), electroencephalography (EEG), Magnetic resonance imaging angiogram (MRIA), transcranial doppler ultrasonography (TCD-USG)).

Conclusion(s): In this study 22 patients (12 male and 10 female) were diagnosed as BD and evaluated. While the most common reason leading to BD was intracranial hemorrhage 10 (45,45%) rest of the other causes are cardiac arrest 3 (13,63%), intracranial tumour 3 (13,63%), pulmonary embolism 2 (9,09%), meningitis 1 (4,54%), aneurysmal hemorrhage 2 (9,09%), subarachnoid hemorrhage 1 (4,54%). The mean age was $40,86 \pm 15,62$ years, and the mean APACHE II was $28,23 \pm 16,33$.

In 12 patients ancillary tests (CTA, EEG, MRIA, TCD-USG) were evaluated. CTA performed in 8 patients, and it was positive synchronously with clinics for only 6 (75%), after clinical progress, 2 cases had CTA negative results were accepted as BD based on further CTA or with EEG. In two patients, MRIA were performed, and it was positive in one patient, the other negative result has been accepted to compatible with BD after that reevaluated by CTA. In one patient EEG, and in an other patient TCD USG were positive .In 10 patients BD were diagnosed by clinically .

Any condition causing permanent widespread brain injury can lead to brain death. Brain death can be diagnosed based on clinical criteria, but some confirmative tests may be necessary .Verification of the absence of cerebral circulation is crucial in confirmation of brain death diagnosis .Confirmative tests that can be conducted radiologically are intracranial blood flow examinations, which include CTA, MRI angiography, cerebral angiography and venography, ophthalmic artery flow examinations and transcranial doppler ultrasound examinations .Legal requirements vary by country .

Compared with other ancillary tests for BD, CTA is reliable, standardized, and widely accessible and can examine the whole body, making it particularly useful in cases in which there is a potential for organ harvesting.

When clinically diagnosing BD is not always consistent with CTA, the diagnosing method has to be repeated or other techniques have to use for confirmation.

PP-108 A RARE INDICATION FOR LIVER TRANSPLANTATION: HEPATIC EPITHELIOID HEMANGIOENDOTHELIOMA

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Ankara University

Purpose: Hepatic epithelioid hemangioendothelioma (HEHE) is a rarely seen vascular tumor. Although the natural course of the disease can change, mortality rate is approximately 65%. Liver resection, chemotherapy, radiotherapy and liver transplantation are among the choices for therapy. Since the number of patients with HEHE is low, knowledge about efficacy of these therapies is accumulating slowly.

Material and method: A 57 year old female patient was diagnosed with papillary thyroid cancer and underwent thyroidectomy and received radioactive iodine therapies for about 5 years prior to attending our clinic. During the follow up period no problems were seen. Two years ago, increase in GGT and ALT levels were seen on routine blood tests. An ultrasonography revealed a heterogeneous liver architecture and in addition, lobular masses were observed. After carrying out more advanced radiological investigation and performing biopsy she was diagnosed with HEHE and then had 3 chemotherapy sessions. Chemotherapy did not improve the patient's condition and she was referred to our department. In her first outpatient clinic visit, serum GGT, ALP, AST, ALT, and albumin were 305 u/I, 435 u/I, 412 u/I, 39 u/I, 25 u/I and 4 g/ dL respectively. Complete blood count values were normal. On dynamic CT, non contrasting, dispersed hypodense lesions with undetectable margins, mostly at the right liver lobe, were seen. Dynamic diffusion liver MRI, revealed that the lesions extended to the medial segment of the left lobe. The lesions were dispersed, and without detectable margins and were retracting the capsule.]The findings were found to be compatible with HEHE. A fine needle aspiration biopsy confirmed the diagnosis. It was decided that the only curative option was liver transplantation. The alive donor was the patient's son. The patient underwent a successful liver transplantation. The pathology of the explanted liver confirmed the diagnosis of HEHE. The patient completed 1 year after the transplantation without any problems.

Conclusion(s): In our country, the main indication for liver transplantation is complications of cirrhosis secondary to viral causes. HEHE is a rare indication for liver transplantation and is the only curative treatment option for the disease. In the literature, 30 % of posttransplant recurrence has been reported. Our patient has completed first year after transplantation without any problem or recurrence.

PP-109 PEDIATRIC LIVER TRANSPLANTATION IN ANKARA UNIVERSITY, CHILDRENS HOSPITAL. COMPARISON OF TWO ERAS

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Purpose: To review Ankara University pediatric liver transplant programme to date. We describe how the programme has evolved and specifically compare the outcomes of the first 15 patients with the recent 15 patients.

Material and method: Records of all pediatric liver transplantations (LT) performed between 14 June 2005 and July 2018 were reviewed. Data were analysed for age and weight at transplantation, indication and type of graft. Morbidity, mortality and complications were documented Comparison was made between Era 1 (July 2005 - July 2012) and Era 2 (October 2014 - June 2018).

Findings: In Era 1 17 LTs,(LDLT:15, cadaveric :2) were performed in 15 patients . Age at transplantation ranged from 5 months to 192 months (mean 70 months) and weight ranged from 5 kg to 50 kg (mean 29 kg) . Leading indication for LT was fulminant hepatic failure (FHF),(n:8) followed by cholestatic liver disease (n:4). Of the 15 patients 5 are alive and well with 1-year survival of 46.6% and 5-year and 10 year survival of 33%. Biliary and vascular complications occurred in %33 and %20 of the patients, respectively. The causes of death were systemic aspergillosis(n=3), chronic rejection(n=2), CMV infection(n=1), progression of hepatic encephalopathy to Grade 4 after LT(n=1), intraoperative bleeding(n=1), primary non function(n=1),and portal vein thrombosis(PVT)(n=1).

In Era 2, 15 children underwent 14 LDLT and 1 cadaveric LT for fulminant hepatic failure(n:5), cholestatic liver disease(n:4), metabolic disease(n:3), cryptogenic cirrhosis(n:3) .Age at transplantation ranged from 5 months to 210 months (mean 85 months) and weight ranged from 5 kg to 52 kg (mean 19.7 kg) .Of the 15 patients 13 are alive and well with 1-year and 3-year patient survival of %87 and %87,respectively.PVT leading to graft lost and mortality occurred in 2 (%13) patients. Minor biliary leak from the graft surface encountered in 1 (6.5%) patients

Conclusion(s): Significant improvement in patient survival rates was noted in Era 2. To improve outcome we optimized recipient and donor selection, preoperative evaluation, operative techniques and equipment and postoperative management Careful and adequate donor and recipient evaluation in multidisciplinary transplantation meetings and preoperative planning by dedicated 3 D visualisation system for hepatobiliary surgery to rule out graft and recipient disparity and to avoid large or small for size grafts was done.Surgical technique was modified by using delicate dissection and equipment, high hilar plate dissection during recipient hepatectomy, microscopic techniques,and operating microscope for HA anastomosis and for bile duct when there is small and multiple graft bile ducts Intraoperative ultrasound was used to check patency of the vascular anastomoses and flow patterns. Postoperative care was optimized by careful and dedicated pediatric intensive care and by utilizing established written protocols.

PP-110 LIVER TRANSPLANTATION FOR HEPATOCELLULAR CARCINOMA: ANKARA UNIVERSITY EXPERIENCE

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Purpose: Hepatocellular carcinoma (HCC) is one of the indications for liver transplantation. Liver transplantation is a curative treatment option which offers long term survival by removing both tumor and diseased liver parenchyma with low risk of recurrence. In here we present outcomes of liver transplantation performed for HCC at Ankara University.

Material and method: Patients who underwent liver transplantation at Ankara University Hospitals between January 2013 and July 2018 for indication of HCC were retrospectively analyzed. Patient and tumor characteristics and survival data were recorded and analyzed. Secondarily outcomes of patients with HCC were compared with outcomes of recipients who underwent liver transplantation for indications other than HCC.

Findings: Twenty-eight patients among 142 liver transplants underwent liver transplantation for HCC. Five of 28 transplants for HCC were cadaveric. Median patient age was 58 (4-65) Mean tumor size was 27.2 (10-80) mm and mean tumor number was 2.22 (1-8). Mean AFP level was 27.1 (1.66-329.13) ng/mL. Mean MELD scores were calculated as 13.96 (6-28). Eight (28.6%) patients had portal vein thrombosis. Nineteen (67.9%) patients were positive for HBV and 3 (10.7%) patients were positive for HCV. Eight (28.6%) patients were out of Milan Criteria. Five (17.9%) patients died on follow up. Neither local nor systemic recurrence was seen. According to Kaplan Meier analysis mean estimated survival time was 51.92 months for HCC patients and 50.60 months for non-HCC patients. These were similar between groups ($p=0.566$).

Conclusion(s): Comparable outcomes were observed between HCC and non-HCC patients. The etiology of liver disease in HCC patients was HBV disease in the vast majority. The availability of living donor liver transplantation may have contributed to the beneficial outcome. Expanded transplantation criteria for HCC may be considered to increase survival of HCC patients.

PP-111 NEW CATHETER PLACEMENT TECHNIQUE OF QUADRATUS LUMBORUM BLOCK IN DONOR NEPHRECTOMY

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Purpose: Quadratus lumborum block (QLB) is a new contribution to the truncal block techniques that has been found to provide analgesia for laparoscopic surgeries. Recently, various ultrasound guided approaches of this nerve block have been identified. We aimed to describe new laparoscopic placement technic of QLB in patients undergoing laparoscopic donor nephrectomy (LDN) .

Material and method: Inform consent obtained 9 patients undergoing LDN were included in this preliminary study. All patients received same general anesthesia and our recent technique in which the catheter was placed between the OL and psoas major (PM) fascial plane was performed by the surgeon under direct vision. Following the LN procedure, dissection was made with right angle dissector and a 4 mm fascial window was created between the PM and QL muscles. An epidural catheter was inserted into the abdominal space through a needle placed lateral to the umbilicus on anterior axillary line. The catheter was inserted 6 cm though the fascial window after confirming negative aspiration, 20 mL of 0.25 % bupivacaine was injected through the catheter. The spread of the local analgesic in the intended plane could be seen in real time. After the operation, we used a continuous infusion of 0.1% bupivacaine 7 mL/h over 24 h delivered via a PCA device. Catheter was removed by the surgeon at 24.h, postoperatively. The effects of QLB were evaluated by comparing postoperative visual analog pain scores (VAS) and morphine consumption at 15.min, 30.min, 1.h, 6.h, 12.h and 24.h after surgery between groups.

Figure 1 .Laparoscopic view after left sided nephrectomy demonstrating the 12th rib, the quadratus lumborum muscle (QL), the psoas major muscle (PM), the subcostal nerve, ilioinguinal nerve, the epidural infusion catheter

Findings: The 9 study patients (Group QL) were compared with the previously audited 26 patients (Group M) receiving morphine PCA only. During the first 24 postoperative hours, OL block reduced mean IV morphine Postoperative VAS .(0.0001 >p) ,(7,1Group M 16.8± ,1,16requirements by more than 70 % (Group QL: 5,11± values at the first hour were significantly lower in Group QL than Group M (p=0.016). There was no difference (0.05<at 24.h between groups (p

Conclusion(s): This preliminary report showed that QL catheter placement technique provides better postoperative analgesia in LDN. However further studies with extended patient numbers are required to test the efficacy of the technic.

PP-112 KIDNEY TRANSPLANTATION AS TREATMENT OF CHRONIC HYPOTENSION IN HEMODIALYSIS PATIENTS

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Introduction/Purpose: Hypotension is the most common complication of patients undergoing hemodialysis, and is considered as a factor of excess cardiovascular mortality that may contraindicate kidney transplantation for many patients. The aim of our work is to describe the evolution of chronic refractory hypotension in hemodialysis patients after kidney transplantation. We report the cases of two patients who were 55 and 37 years old, and who have been undergoing hemodialysis during 3 and 5 years respectively, with a tolerated chronic peridialytic and interdialytic hypotension. Both patients had a kidney transplantation from living donors. During the surgical procedure, vasoactive drugs (Norepinephrine) have been introduced for the two patients, with a respective mean arterial pressure of 45 mmHg and 60 mmHg. Induction immunosuppressive therapy included Anti-thymocyte globulin, Mycophenolate Mofetil, Tacrolimus, and Steroids. A delayed graft function occurred for only one patient, for which she has been hemodialysed during 10 days. During the postoperative period, blood pressure was maintained around 130 / 70mmHg for both patients, initially with Norepinephrine, then relayed by Midodrine. During follow-up, the graft function gradually improved: respectively 149 $\mu\text{mol/l}$ and 114 $\mu\text{mol/l}$ of plasma creatinine concentration, after one month from the kidney transplantation, thus allowing a progressive decrease of Midodrine doses, and we could finally wean it for the both patients after 5 months and 1 month respectively. The duration of follow-up is respectively 21 months and 7 months with favorable outcomes : the plasma creatinine concentration is respectively 158 $\mu\text{mol/l}$ and 80 $\mu\text{mol/l}$, and the blood pressure is around 125/80 mmHg without any need of vasopressive drugs.

Conclusion: Hypotension in patients undergoing hemodialysis is multifactorial. Kidney transplantation was performed successfully and safely for our patients, using an adequate vasopressor therapy. The rapid reversibility of hypotension after kidney transplantation would be related to the secretion of vasoconstrictors by the graft. The favorable outcome for our patients suggests a beneficial effect of the kidney transplantation in patients undergoing hemodialysis with chronic hypotension. Kidney transplantation should not be avoided as a renal replacement therapy for these patients.

PP-113 NEW ONSET DIABETES IN LIVING KIDNEY DONORS AFTER DONOR NEPHRECTOMY

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Purpose: In healthy live donors, the risk of end-stage renal disease (ESRD) after nephrectomy is increasing and newly developing diabetes (DM) is of importance in etiology of ESRD. In this study, the frequency and risk factors of diabetes after donation in living kidney donors were investigated.

Living donors of kidney transplants between January 1998 to December 2016, were evaluated. Eligible donors were those with age > 18 years, GFR > 70 ml/min/1.72m², body mass index (BMI) ≤ 35 kg/m² and proteinuria < 300 mg/day. Subjects with a history of diabetes and having less than one year of follow-up were excluded from the study. In cases with a history of hypertension, those without end-organ vascular damage but having normal ambulatory blood pressure measurement with single drug treatment were included in the study. Baseline and follow-up data of donors were obtained retrospectively from files. The diagnosis of new onset DM depended on the presence of any of the following: Fasting blood glucose ≥ 126 mg/dL, random blood glucose ≥ 200 mg/dL, diabetes symptoms, Oral Glucose Tolerance Test (OGTT) 2 hour plasma glucose ≥ 200 mg/dL or HbA1c ≥ 6.5. To establish the blood glucose profile of the donors; preoperative fasting glucose (pro-G), nephrectomy evening (n-G) and postoperative Day 1 (fasting) random glucose (post-G) values were measured. Then, they were divided into three groups: pro-G (normal < 100 mg/dL vs > 100 mg/dL), nG (normal < 140 mg/dL vs > 140 mg/dL), post-G (normal < 100 mg/dL vs > 100 mg/dL) and compared in terms of the risk of developing diabetes.

Findings: 195 cases were included in the study. The mean follow-up was 56 ± 45 (12-215) months. The mean age was 47 ± 11 (19-82) years and 49% of donors were female. Of the cases, the average pro-G, n-G and post-G were 94.2 ± 9.6 (57-122), 169 ± 79 (85-631) and 113 ± 21 (66-240) mg/dL respectively. In the follow-up, 28 (14.3%) donors developed diabetes. The pro-G (103 ± 7.6 vs. 93 ± 9.0, p < 0.001), nG (208 ± 122 vs. 163 ± 67; p = 0.06) and post-G (121 ± 25 vs. 111 ± 21; p = 0.02 mg/dL) values of the donors with new-onset diabetes were higher. Donors who developed diabetes had lower basal GFR values and higher systolic & diastolic blood pressure (p < 0.05). In these cases, the final control kidney function was equivalent to the non-diabetic donors but the frequency of hypertension was higher (p < 0.05) (Table 1). When donors with Pro-G < 100 mg/dL (n: 152) were compared with those having preoperatively impaired fasting glucose (IFG) (n: 43, pro-G > 100 mg/dL); donors with IFG were older (51 ± 10 vs 46 ± 11; p < 0.05), had lower baseline GFR (97 ± 19 vs 104 ± 22; p < 0.05) and higher incidence of DM (40% vs. 7%; p < 0.001).

Nineteen donors (9.7%) had normal pro-G, n-G and post-G values (Group A). However, there were 153 (78.5%) cases with at least one abnormal value (group B) and 25 (12.8%) cases having abnormal values in all (pro-G, n-G and post-G) measurements (group C). The incidence of diabetes development in group A was zero (0%) while it was 11% in group B and 48% in group C (p < 0.001). In multiple regression analysis including variables as age, DBP, GFR, pro-G, n-G and post-G: pro-G (Exp(b): 1.08, (CI: 1.04-1.13); p < 0.001) and basal GFR (Exp(b): 0.96, (CI: 0.94-0.99); p < 0.01) independently associated with diabetes development.

Conclusion(s): In healthy kidney donors, the development of diabetes after donor nephrectomy is an important problem. Preoperative blood glucose levels provide important information to predict these cases.

PP-114 ACUTE RENAL FAILURE IN A CASE TREATED BY ISONIAZID PROPHYLAXIS BEFORE PRE-EMPTIVE KIDNEY TRANSPLANTATION

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Purpose: We present a case of acute interstitial nephritis after isoniazid treatment during pre-emptive kidney transplant evaluation

Material and method: 63 year old man with chronic kidney disease (CKD) had been followed up by our department. He had the history of myocardial infarction and coronary artery bypass graft on 2001. He also operated for hydro-urethero-nephrosis related with stone disease 15 years ago. He was hypertensive since than 46 year old. During last 1 year his serum creatinine (SCr) levels were 4.1-5 mg/dl and eGFR values were 13-15 ml/minute (CKD-epi). He was evaluated for kidney transplantation (KTx). Tuberculosis skin test was found as 10 mm and isoniazid (INH) 300 mg / vitamine B6 were prescribed for latent tuberculosis prophylaxis. SCr level was found as 5,98 mg/dl after 15 days of INH treatment. There was no reason such as cardiovascular, renal vascular, post-renal obstruction and any infection to define the cause of acute renal failure (ARF). Urine sediment showed leucocytes and leukocyte cylinders and urine culture was negative for microorganisms. INH treatment was stopped. He was asymptomatic. Blood urea nitrogen and SCr progressively increased up to 172 and 6 mg/dl respectively. Kidney biopsy was not done due to the atrophic kidneys. Kidney function improved spontaneously in almost 60 days of INH stopping. Interestingly eosinophilia developed during renal function improvement (Table).**Findings:**

Parameters	Normal	25.6.2018	11.7.2018	14.7.2018	18.7.2018	28.8.2018
Glucose,mg/dl	105-70	72	82			83
BUN,mg/dl	20-8	61	162	172	157	62
Creatinin,mg/dl	1-0.4	4.11	5.98	6	6	5.18
eGFR,ml/dk	120-80	14	9	9	9	11
AST, U/L	41-15	19	16	13	15	23
ALT,U/L	54-14	30	11	9	13	22
Albumin,g/dl	4.5-3.5	3.92	3.3			3.44
Na, mmol/l	145-135	138	132	137	130	139
K,mmol/l	5.1-3.6	5.2	5.6	5.8	4.8	5.4
Ca,mg/dl	10.3-8.9	8.9	8.9	8.7	8.7	8.9
P,mg/dl	4.7-2.4	4.23	6	6.7	5	5.08
mL/10 ³ ,WBC	10.3-4.5	9	10.4			7.5
Hgb, g/dl	17.2-13.6	11.4	10.2			10.5
%,Hct	20.3-39.5	32.6	28			30.5
mL/10 ³ ,Plt	373-156	210	213			217
%,Eosinophil	4-0.9	4.1	2.9			7.1
mL ,Eosinophil	450-0	400	300			500

Conclusion(s): Kidney transplantation guidelines recommend INH prophylaxis to KTx recipients who have high risk for tuberculosis infection. In our case acute interstitial nephritis developed due to INH treatment. So that in follow up period INH also should be remember among the causes of acute renal failure as rejection, obstruction etc in KTx recipients treated with INH

PP-115 EVALUATION OF RELATIONSHIP BETWEEN HOMOCYSTEINE, PARATHORMON, VITAMIN D AND BONE MINERAL DENSITY IN KIDNEY TRANSPLANT RECIPIENTS

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Purpose: In kidney transplantation recipients (KTRs) osteopenia and osteoporosis commonly occur. Especially during first 6 months, significant bone loss develops. The most important factors that determine the severity of bone disease are, dialysis duration, severity of secondary hyperparathyroidism, the dose and duration of immunosuppressive drugs, kidney functions and vitamin D level. In this study, we investigated the interrelationship between a sulfur amino acid, homocysteine, parathormone, vitamin D, and bone mineral density (BMD) in KTRs.

Material and method: In this study, 86 male (%73.5) and 31 women (%26.5), totally 117 KTRs were included. Informed consent was approved from the patients who agreed to participate in the study. Patients age, sex, duration of dialysis, transplant duration, types of donors, drugs used, the development of post-transplant diabetes were recorded. Also serum levels of glucose, creatinine, calcium, phosphorus, sodium, potassium, parathormone, vitamin D, albumin, homocysteine, vitamin B12, folate, and 24-hour urine protein were measured. The BMD of femoral neck and lumbar spine was measured by dual energy X ray absorptiometry method (DEXA).

Findings: According to DEXA measurements, normal, osteoporosis and osteopenia were found as 14 (12.3%), 41 (36.2%), 58 (51.3%) in KTRs respectively. There was statistically significant relationship between the homocysteine levels and drugs used as rapamycin ($p = 0.05$), statins ($p = 0.057$) and B-blockers ($p = 0.01$). There was no statistical significance between the drugs used and femur and vertebral DEXA. There was statistically significant relationship between the serum homocysteine level and BUN ($p = 0.002$), creatinine ($p = 0.001$), vitamin B12 ($p < 0.001$). Proteinuria was significantly related with serum homocysteine level ($p = 0.031$). Serum vitamin D level was negatively correlated with proteinuria ($p = 0.0035$) and positively correlated serum albumin ($p < 0.001$) and calcium ($p = 0.001$). It was not found any significant relationship between serum homocysteine levels and BMD of the femur and lumbar vertebrae.

Conclusion(s): In KTRs osteopenia and osteoporosis were found as high as 51% and 36% respectively. There was no relationship between serum homocysteine level, and BMD, parathormone, vitamin D. Homocysteine levels were negatively correlated with renal function and vitamin B12 and folate. So that replacement of folate and vitamin B12 can be recommended for high homocysteine levels in KTRs. Homocysteine levels can be affected by some drugs such as rapamycin, statin and β blocker. Until now there was not any report we found positive relationship between serum homocysteine levels and proteinuria in KTRs.

PP-116 ARTERIAL STIFFNESS AND METABOLIC SYNDROME INDICES IN RENAL TRANSPLANTATION PATIENTS

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Purpose: Arterial stiffness is an important characteristic of the arterial wall and can be assessed noninvasively by the measurement of carotid-femoral pulse wave velocity (PWV).

Material and method: All patients were evaluated for their standard clinical biochemical parameters. Anthropometric and body composition analyses were performed for all patients. Body compositions were analyzed by using the Body Composition Analyzer (Tanita BC- 420MA). PWV was determined from pressure tracing over carotid and femoral arteries using the SphygmoCor system.

Findings: Patients were divided into 2 groups according to their PWV measurements. Metabolic syndrome after kidney transplantation was significantly more common in patients who had PWV > 7 m/s compared to patients who had PWV < 7 m/s ($p < 0,021$). PWV measurements were positively correlated with age, serum glucose, uric acid, waist perimeter, sagittal abdominal diameter, systolic and diastolic blood pressure ($p < 0.05$ for all). According to the linear regression analysis, glucose ($\beta: .323$; $p < 0,001$), uric acid ($\beta: .312$; $p < 0,001$) and age ($\beta: .202$; $p < 0,016$) were found to be the independent variables for PWV changes after kidney transplantation.

Conclusion(s): Metabolic syndrome indicators such as hyperglycemia, hyperuricemia, high blood pressure and waist perimeter are closely associated with arterial stiffness.

PP-117 THE IMPACT OF ADOPTING ROUTINE LUMINEX-BASED PRE-TRANSPLANT ASSESSMENT OF HLA ANTIBODIES ON CLINICAL PRACTICE AND OUTCOMES IN KIDNEY TRANSPLANTATION

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Purpose: The use of luminex technology has revolutionized the capability of detecting antibodies to transplanted organs, thus permitting more reliable pre-transplant assessment of risk for early rejection following renal transplantation. The clinical utility of this technique has been ripening over the past decade and the pros and cons of its routine use are gradually unveiled. This technique was adopted for routine assessment of our kidney transplant recipients at the end of the year 2014 and the results of this practice are explored in this study.

Material and method: We compared the outcomes and standards of care of our kidney transplant procedures at our centre after application of routine luminex monitoring of HLA antibodies in pre-transplant recipient assessment (year 2015-2018) and compared the outcomes to transplants done over 4 years before routine utilization of luminex assessment (2011-2014). The data was obtained from hospital records and individual patient files.

Findings: The number of kidney transplant recipients at our centre between 2011- 2014 was 670, and between 2015-2018 were 842. The percentage of patients found to have antibodies over the past 4 years was 27% of all our patients on the waiting list, 22% of those had calculated PRA (cPRA) >80%. Before utilizing luminex testing, all patients with negative CDC cross match were transplanted, however after luminex utilisation, the odds of being transplanted with a negative cross CDC cross match in presence of HLA antibodies compared to absent antibodies was 0.3, p 0.002. In 2015-2016 all patients with cPRA > 80% or positive CDC cross match were denied transplantation at our centre. In 2017, a risk stratification and desensitization protocol was instigated in collaboration with a centre experienced in desensitization and 3 patients with positive CDC cross match received desensitisation, 2 of whom were successfully transplanted. Following the use of luminex technology, the rate of graft loss to acute antibody mediated rejection in the first 6 months post -transplant has fallen to zero/ 842 (year 2015-2018) compared to 23/820 (year 2011-2014). Immunosuppressive treatment has become more targeted, permitting introduction of everolimus in low risk patients for the first time in 2015 and tailoring of biological induction therapy in high risk groups.

Conclusion(s): The use of luminex technology in routine pre-transplant assessment has allowed for improvement of graft outcomes, risk assessment and targeted immunosuppressive therapy.

PP-118 CAN PALOSURAN, AS AN UROTENSIN II RECEPTOR ANTAGONIST, PROTECT KIDNEYS FROM CALCINEURINS?

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Purpose: Calcineurin inhibitors (CNIs) including Cyclosporine A (CsA) are the cornerstone of maintenance immunosuppression in solid organ transplantation. The clinical use of CNIs is compromised by their nephrotoxicity. Increased oxidative stress in kidney and vascular tissue, nitric oxide (NO) production, up-regulation of the vasoconstrictor agents, such as urotensin II (UT II) and endothelin, are responsible for the emergence of these complications. Palosuran is a potent antagonist of the human UT receptor. The purpose of this study is to investigate the effect of palosuran treatment on CsA induced nephrotoxicity.

Material and method: Twenty-four Wistar-albino male rats were randomized into three groups. First group was control group and administered isotonic saline subcutaneously (sc) for three days. Second was CsA treated group and received CsA 30mg/kg/day (sc) for three days. Third group was CsA plus palosuran treated group and received CsA 30mg/kg/day (sc) and palosuran 300 mg/kg/day for three days. Then rats were sacrificed. Tubullary vacuolar changes, tubullary regenerative changes and tubulointerstitial inflammation were semi-quantitatively scored in renal tissues. Kruskal Wallis and Man Witney U test were used for statistical analysis. A p value of less than 0.05 was considered significant

Findings: In CsA treated group renal function tests were increased, displaying that functional nephropathy was established. Tubulointerstitial inflammation (0.6 ± 0.3 vs 1 ± 0.2 p:NS) and tubullary regenerative changes (1 ± 0.3 vs 1.1 ± 0.3 p:NS) were to a lesser extend in palosuran treated group than CsA treated group. Increased tubullary vacuolar changes (3.1 ± 0.4 vs 2 ± 0.4 p< 0.05) in palosuran treated group may reflect decreased tubullary cell necrosis. Despite better results on histologic examination, biochemical analysis revealed no significant recovery. The authors speculate that the biochemical recovery might be expected in later phases of palosuran treatment.

Conclusion(s): Urotensin II may play a role in acute CyA nephrotoxicity. Palosuran, as an UT II receptor antagonist, might be effective in reversing this process.

PP-119 PEDIATRIC KIDNEY TRANSPLANTATION IN PATIENTS WITH UROLOGICAL ANOMALIES

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Purpose: To examine the clinical course of pediatric kidney transplantation patients who progressed to end-stage renal failure with urological reasons.

Material and method: Patients who were followed up with kidney transplantation in Ege University Pediatric Nephrology Unit were evaluated retrospectively. Thirty-three of the pediatric kidney transplant patients whom primary diagnose of end stage renal failure was urological causes included the study.

Findings: Twenty-one (63,6%) were male and 12 (36,4%) were female. While 16 (48,5 %) of the donors were living donor, 17 patients (51,5 %) were donated cadaverically. Mean age at the time of transplantation of the patients was 12 years (min: 3 years, max: 9 years). The mean follow-up period of the patients was 72 ± 42 months (min: 1, max: 168 months). Of these patients 22 had vesicoureteral reflux, 6 had posterior urethral valve, 2 had neurogenic bladder, 2 had nephrolithiasis and 1 had renal dysplasia. Twenty-seven (81,8 %) patients received ATG (antithymocyte globulin) for initial immunosuppression treatment and 6 (18,2%) received basiliximab. When the immunosuppressive treatment was grouped into tacrolimus or cyclosporin containing regimens, 19 patients received tacrolimus and 14 received cyclosporin. During the follow-up period, rejection was detected in 9 patients, 4 of which were acute and 5 were chronic rejection. Mean creatinine level of the patients was 1.4 (min: 0.4 mg/dL, max: 7 mg/dL) at the end of follow-up period. When patients grouped as with and without poor bladder function; 8 of them had poor bladder function (posterior urethral valve and neurogenic bladder patients). There was no statistically significant difference in the frequency of rejection ($p= 1$) and the final creatinine values ($p=0.48$) between these groups.

Conclusion(s): Urological problems are important causes of chronic kidney failure in pediatric age and may have a good outcome with renal transplantation.

PP-120 ELIGIBILITY FOR RENAL TRANSPLANTATION AMONG HEMODIALYSIS PATIENTS IN DAKAR

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Purpose: Renal transplantation (RT) is the best treatment for end stage renal disease. In Senegal, transplantation is not yet done. The aim of this study was to evaluate eligibility for RT hemodialysis patients in Dakar

Material and method: It was cross-sectional descriptive multicenter study from March to June 2017 hemodialysis centers of Dakar. Sociodemographic clinical and paraclinical parameters to list the standard and expanded eligibility criteria for patients for RT were evaluated.

Findings: 230 patients were included. Mean age was 50.83 ± 14.35 years with sex ratio of 1.05. 184 patients (80%) were married 208 (90.4%) were Muslim and 22 Christians (9.6%). Sixteen patients (7%) did not want to be transplanted. The reason was linked to: the feeling of well-being in dialysis (47.06%) old age (41.18%) the fact that it was necessary to favor the young patients (17.65%). 170 expressed the desire to be transplanted. The main motivations were to stop dialysis (100%) and improve the quality of life (97.18%). Only 52 patients had donors. Relationship with the donor was mainly 2nd degree (62.38%). Risk of recurrence of initial nephropathy was noted in 14.8%. 221 patients (96.09%) had at least one immunizing event. Infection risk was present in 47 patients: Hepatitis B in 24 (10.43%) patients hepatitis C in 6 (2.61%) patients tuberculosis in 17 patients (7.83%) no patient was HIV-positive. Main absolute contraindications were due to severe cardiovascular comorbidities (11.74%). Finally 52 patients (22.61%) were eligible for RT

Conclusion(s): Desire of transplantation is reality in hemodialysis. Identification of comorbidities and their management must be a priority in hemodialysis centers to increase patients eligibility for RT

PP-121 PATIENTS DIAGNOSED WITH PRIMARY GLOMERULONEPHRITIS – RENAL TRANSPLANTATION RESULTS

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Purpose: The purpose of the study was to describe kidney allotransplantation results of patients diagnosed with primary glomerulonephritis, the potential risk factors of the allograft function loss and to investigate the influence of recurrent glomerulonephritis.

Material and method: 181 patients primarily diagnosed with glomerulonephritis who had their last kidney allotransplantation held in P. Stradiņš Clinical University Hospital-Centre of Transplantation during 2003-2014 were involved in study and their case files were analyzed till 31.12.2017. Data was processed using SPSS software.

Findings: The graft survival for patients with primary glomerulonephritis was: 1 year – 95% (n=172); 3 years – 87% (n=158). Better graft survival was significantly associated with absence of active viral hepatitis (OR=3.7, p=0.003), absence of congestive heart failure (OR=12.7, p=0.002) and the primary graft function (OR=2.7, p=0.016), but not with other potential risk factors like patient gender, age, body mass index, blood group, duration of renal replacement therapy prior transplantation, number of transplantations, type of GN and other comorbidities (diabetes, oncology and autoimmune disease). Recurrence of glomerulonephritis was low: 12.7% (n=23). Graft loss due to recurrent glomerulonephritis was biopsy proved in 11 patients (seven - due to membranoproliferative glomerulonephritis, two – FSGS recurrence and one for each – ANCA vasculitis and IgA nephropathy relapse). 38 patients lost their grafts due to other reasons. Median graft survival for patients with graft loss due to glomerulonephritis recurrence was only 2 years (IQR 0-3,0), due to other reasons – 4 years (IQR 2,0 – 7,0).

Conclusion(s): Better graft survival was significantly associated with absence of active viral hepatitis, absence of congestive heart failure and the primary graft function. No association was found with the other factors. Current study demonstrates the recurrence of primary glomerulonephritis is little over 10%. The 1 – and 3 - year kidney graft survival of patients with primary glomerulonephritis in Latvia is similar to generally known kidney graft survival in Europe.

PP-122 KAPOSI SARCOMA AS THE CAUSE OF URETERIC OBSTRUCTION IN KIDNEY TRANSPLANT RECIPIENT

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Findings: 48 year old man was hospitalized due to abdominal pain and dysuria. He had the history of diabetes mellitus, hypertension and coronary artery disease. Hemodialysis had been performed since 2.5 years and kidney transplantation from his brother had been done 9 months ago (February 17 2015). Tacrolimus 2x2 mg/day, mikofenolat mofetil 2x500 mg/day, prednizolon 1x5 mg/day and insülin had been prescribed at posttransplant period without problem. However renal impairment (BUN/creatinine 82/7.13 mg/dL) and hydronephrosis (AP pelvis diameter 27 mm) were developed. Mass lesion with 2 cm diameter infiltrating bladder serosa and right iliac lymph nodes up to 3 cm were detected with abdominal CT. Biopsy taken with laparotomy was reported as Kaposi sarcoma and mass excision-lymph node dissection and ureteroneocystostomy-double j catheter were performed. PET CT showed residual mass in postoperative period. Tacrolimus was switched to everolimus. Renal function tests were improved gradually. He is following by Oncology and Nephrology departments with normal renal function tests (BUN/creatinin 17/1.11 mg/dL on last visit-42. Month).

Conclusion(s): Kaposi sarcoma is frequently seen malignancy in kidney transplantation recipients and 90% of these tumors are seen in skin and mucocutaneous membranes. Visceral involvement is seen in 10% of the cases. HHV-8 is the etiologic factor. KS presents as single or multiple lesions on mucosal surfaces and generally is seen in 1-10 years after transplantation. First line therapy is to decrease the immunosuppressive treatment as in our case. The presentation of our case is interesting due to earlier development and atypical localization. Also he is complete remission since 42 months.

PP-123 EGFR SLOPE DURING THE FIRST TWO YEARS OF RENAL TRANSPLANTATION

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Inonu University Medical Faculty

Purpose: The K/DQI clinical practice guidelines suggest that, in normal individuals, GFR decreases by 1 ml/min/year after a peak level of 125 ml/min has been reached in adulthood. Any reduction greater than this is considered to be a progressive slope (slope more negative than -1 ml/min/year, stable (-1 to +1), or an improved slope if it shows more of an increase, i.e., greater than +1.0 ml/min/year). Aim of the study was to determine the factors affecting eGFR slope during the first two years of renal transplantation in patients with negative pretransplant panel reactive antibody.

Material and method: The characteristics of 59 renal transplant patients such as age, gender, etiology and 2 years of laboratory data such as hemoglobin, serum glucose, albumin, creatinine, BK and cytomegalovirus polymerase chain reaction were collected retrospectively. For each patient, the eGFR decline rate (slope) (mL/min-1/1.73 m²-1/year-1) was determined by linear regression analysis using all calculated eGFR values over the study period.

Findings: Of 59 patients, 7(11.8%) had a progressive slope, 22 (37.2%) stable slope, 30 (50.8%) improved slope. Mean eGFR slope was 1.28 ± 2.5 ml/min/year. eGFR slope was -3.02 ± 1.7 mL/mean/year in patients with progressive slope, 0.1 ± 0.5 mL/min/year in patients with stable slope and 3.1 ± 1.7 mL/min/year in patients with improved slope ($p < 0.05$). The patients with progressive slope was younger (32.1 ± 12.8 years) than patients with stable slope (47.6 ± 12.2 years) and those with an improved slope (42.8 ± 11.5 years) ($p < 0.05$). In patients with progressive slope mean serum kreatinin levels (1.8 ± 0.5 mg/dL) was higher than in the patients with improved slope (1.3 ± 0.3 mg/dL) ($p: 0.013$). The first year mean tacrolimus level was lower in patients with progressive slope (7.2 ± 1.0 ng / mL) than in the patients with stable slope (7.8 ± 1.4 ng / mL) and improved slope (8.5 ± 0.9 ng / mL) ($p < 0.05$). No difference was found among slope groups according to the second year mean tacrolimus levels. The determinants of eGFR slope in multiple regression analysis were post transplant hypertension (β : -0,393, p : 0,002) and the first year mean tacrolimus level (β : 0,320, p : 0,010) whereas age, serum albumin, two year mean tacrolimus level did not reach the level of significance.

Conclusion(s): The first year tacrolimus levels, and postoperative hypertension were the determinants of eGFR slope. Keeping tacrolimus levels high in the first year to prevent eGFR declining is important.

PP-124 TUBERCULOSIS POST TRANSPLANTATION IN ENDEMIC COUNTRY: PREVALENCE AND EVOLUTION

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University Hospital Ibn Rochd Casablanca

Purpose: The Tuberculosis is a real health problem in endemic countries due to its impact continues to increase and its impact on overall morbidity and mortality. The aim of our work is to make a description of different locations of infection with *Mycobacterium tuberculosis* in post-transplant treatment protocols and the impact on survival and graft function.

Material and method: Retrospective and descriptive study of renal transplant patients who presented confirmed Tuberculosis infection between 1992 and 2017 in the nephrology department of university Hospital of Casablanca in Morocco, in whom we collected clinical, biological parameters and the evolution under treatment.

Findings: 221 patients received kidney transplant during the study period, we noted 15 cases of tuberculosis (prevalence of 6.78%), sex ratio M/F: 1, 5 the mean age was 36 years. The average of duration in dialysis before transplantation was $68, 03 \pm 76$ months and time between the tuberculosis and transplantation was $21, 05 \pm 19$ months. The various localizations was pulmonary in 5 cases, multifocal in 2 patients, ganglionic in 2 cases, 2 laryngeal and 3 cases of pleural tuberculosis with presence of *Aspergillus* infection in one case. The antibacillary conventional treatment for 6 months was indicated in 9 patients and for 9 months in 2 cases and 1 patient received kanamycin associated with levofloxacin and Ethambutol. After minimal follow-up of 3 months, the mortality was 20%, and evolution of the graft marked by the loss of renal graft in 26% of cases.

Conclusion(s): The severity of Tuberculosis disease is even greater in the kidney transplant patient in the state of immunosuppression, and the need for more vigilance.

PP-125 CONTRIBUTING FACTORS FOR ASSIGNING A RENAL GRAFT IN THE UNIVERSITY HOSPITAL IBN ROCHD OF CASABLANCA

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University Hospital Ibn Rochd Casablanca

Introduction: Renal transplant program from deceased donor in Morocco began on September 2010. A scoring system validated nationally determines access to this kind of transplantation from waiting list. The aim of our study is to highlight characteristics of all patients on waiting list, and to research contributing factors of kidney transplants attribution in university hospital Ibn Rochd of Casablanca.

Methods: This is an analytical and descriptive retrospective monocentric study, about all patients included on waiting list for kidney transplant from deceased donor of university hospital Ibn Rochd of Casablanca from September 2012 to April 2017. Collected data were demographical, clinical and biological. Statistical analysis compared 2 groups of patients: transplanted patients versus non transplanted in waiting list.

Results: The waiting list contains 76 patients from whom 23% were transplanted from deceased donor, after an average delay of 738.16 ± 484.41 days (45-1300). 50% were aged 30 to 40 years, and the sex ratio men/women 0.72. 60.5% were married, 50% had a high level education and 75% a profession with a social security in 92.1% of cases. The seniority in hemodialysis was around 79.72 ± 61.34 months (0-300) and one patient had a preemptive transplant. The most frequent blood group were A (43.5%), followed by O (40.8%). 61.1% of all the patients on waiting list had anti HLA antibodies. The contributing factors highlighted by the analytic study were, after comparing the transplanted patients from waiting list with non transplanted, not being aged more than 50 years ($p=0.02$), having high level education ($p=0.006$), having a profession ($p=0.023$), not having anti HLA antibodies ($p=0.005$), and not being from A blood group ($p=0.03$) and being from B blood group ($p=0.004$). (

Conclusion: With the intention of ensuring fairness to all patients on waiting list for access to kidney transplant, the graft allocation system that is influenced by several factors, have to be perpetually optimized. In order to compensate the lack of grafts, we have to promote organ donation, increase the number of donors with expended criteria and develop transplant from non heart beating donors .

PP-126 AMBULATORY BLOOD PRESSURE MONITORING PRIOR TO KIDNEY DONATION

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La Rabta Hospital Tunis Tunisia

Purpose: In kidney transplantation, the requirements for organ donation have been extended to older donors or those with a history of cardiovascular disease that previously have been considered as contraindications. This study aims to determine the interest of ambulatory blood pressure monitoring (ABPM) prior to kidney donation.

Material and method: Our report is about a descriptive retrospective study of 6 living kidney donors who underwent casual clinic and ABPM prior to kidney donation. We study the founding of ABPM.

Findings: : In our series of 73 living donor, in 67 among them, the hemodynamic evaluation of kidney donors was limited to clinic blood pressure levels. The remaining 6 donors underwent ABPM. Subjects were between the ages of 48 and 56, with a mean of body mass index of 26,5 kg/m² [22 -29,5 kg/m²]. The clinic systolic blood pressure (SBP) average was 138,5 mmHg [114 – 150]. For 4 cases with clinic BP the ABPM was used to diagnose high blood pressure. The diagnosis of hypertension was rejected in 2 patient aged <50 y.o with a clinic BP at 140/90 mmhg and an ABPM daytime BP <135/85 mmHg and also In 2 patient aged > 50 y.o with normal BP in clinic BP measurement .The ABPM was used to check the blood pressure balance in 2 patients whom were treated by calcium channel blocker associated to an angiotensin II receptor antagonists in one case and confirmed a well-controlled hypertension assessed by ABPM <130/85 mmHg under treatment but one of them had a non-dipper hypertension. they had nephrectomy for successful kidney transplantation in the recipient and a free complications follow-up period for the donors. Table 1: Ambulatory blood pressure monitoring prior to kidney donation in 6 patient Clinic SBP, mm Hg 140+/-13,2 Clinic DBP, mm Hg 90+/-8,1 Average 24-hour SBP, mm Hg 114+/-12,29 Average 24-hour DBP, mm Hg 73+/- 8,28 Average 24-hour day time SBP, mm Hg 109+/- 9,88 Average 24-hour day time DBP, mm Hg 63,5+/-8,64 Average 24-hour night time SBP, mm Hg 115 +/- 14,2 Average 24-hour night time DBP, mm Hg 71,5 +/- 11,58 Average 24-hour night time PAM, mm Hg 86+/- 10,9 day/night % 10,4+/- 8,9

Conclusion(s): ABPM reveales white coat effect hypertension and confirm well- controlled hypertension. It should be more frequently used before and after kidney donation. Amsterdam Forum recommend the use of an ABPM and considers that, if donors whose blood pressure exceeds 140/90 mmHg should be generally challenged. Some candidates over 50 y.o whose hypertension is easily controlled without visceral repercussions may to be considered as donors.

**PP-127 LIVING DONOR KIDNEY TRANSPLANTATION WITH VASCULAR ANOMALIES:
EXPERIENCE OF BEZMIALEM VAKIF UNIVERSITY**

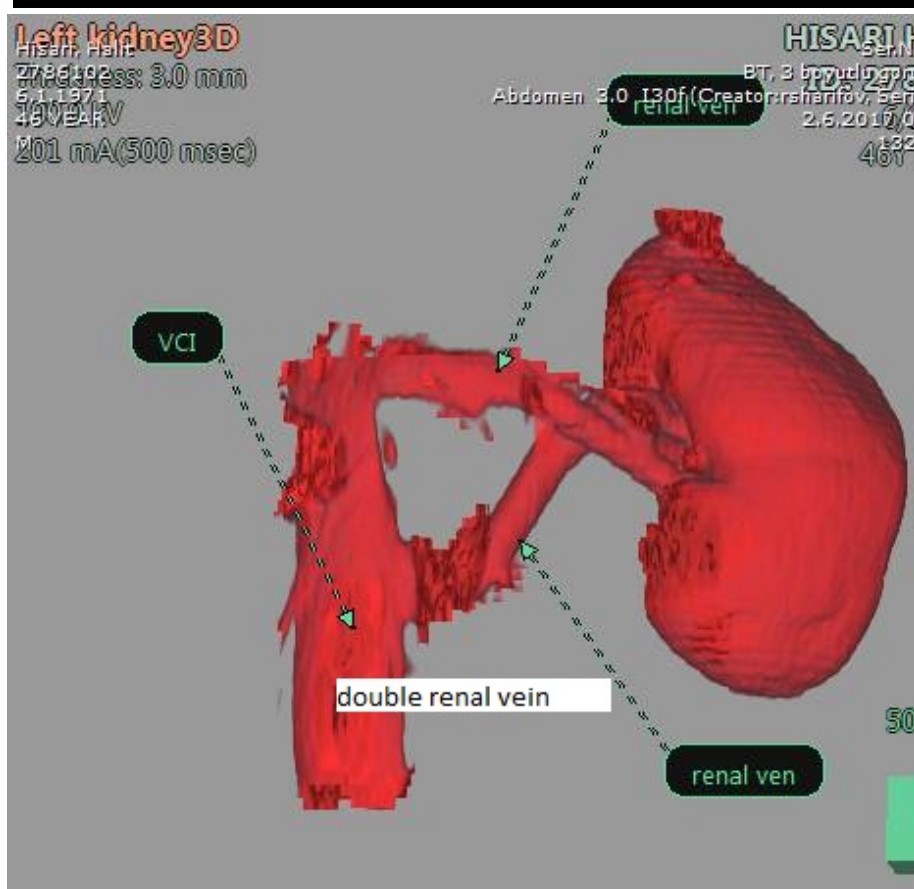
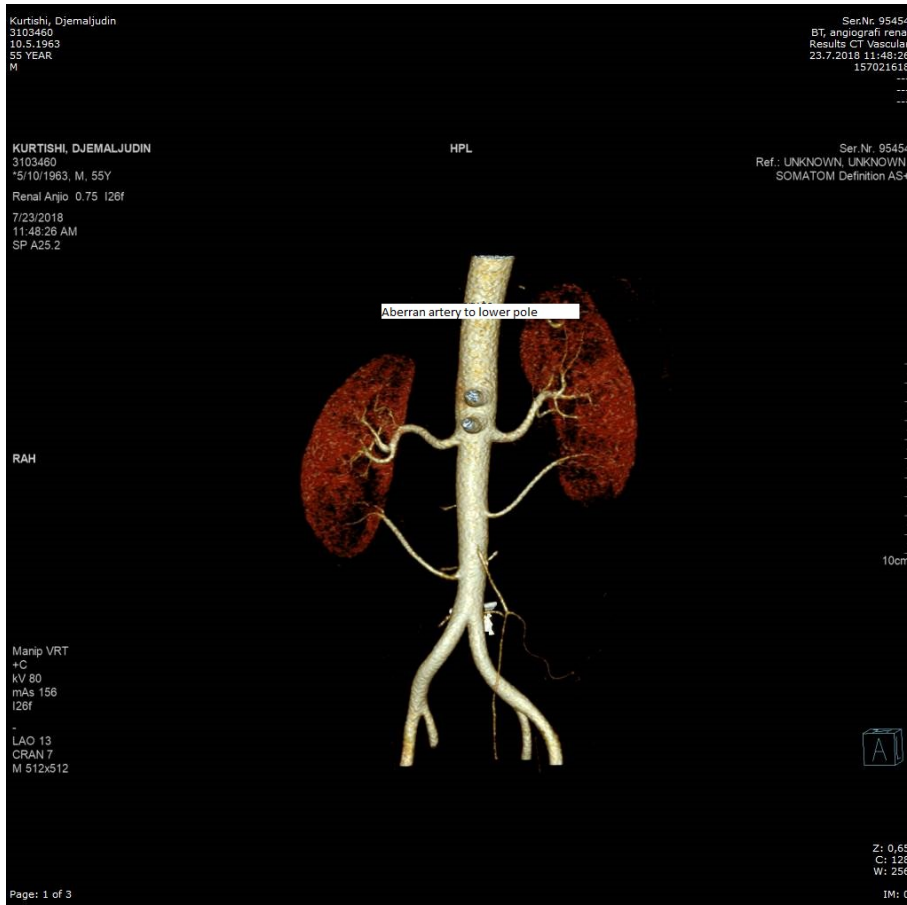
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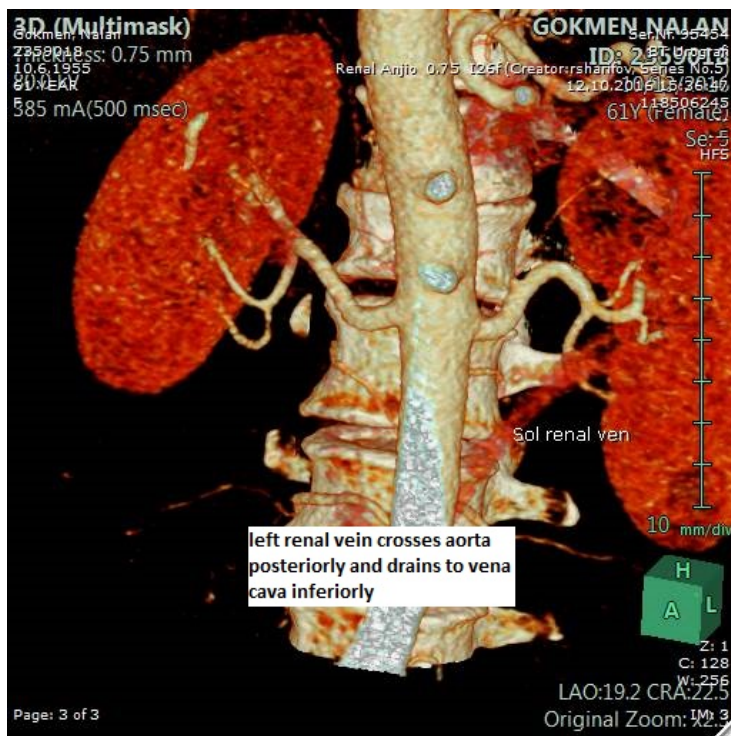
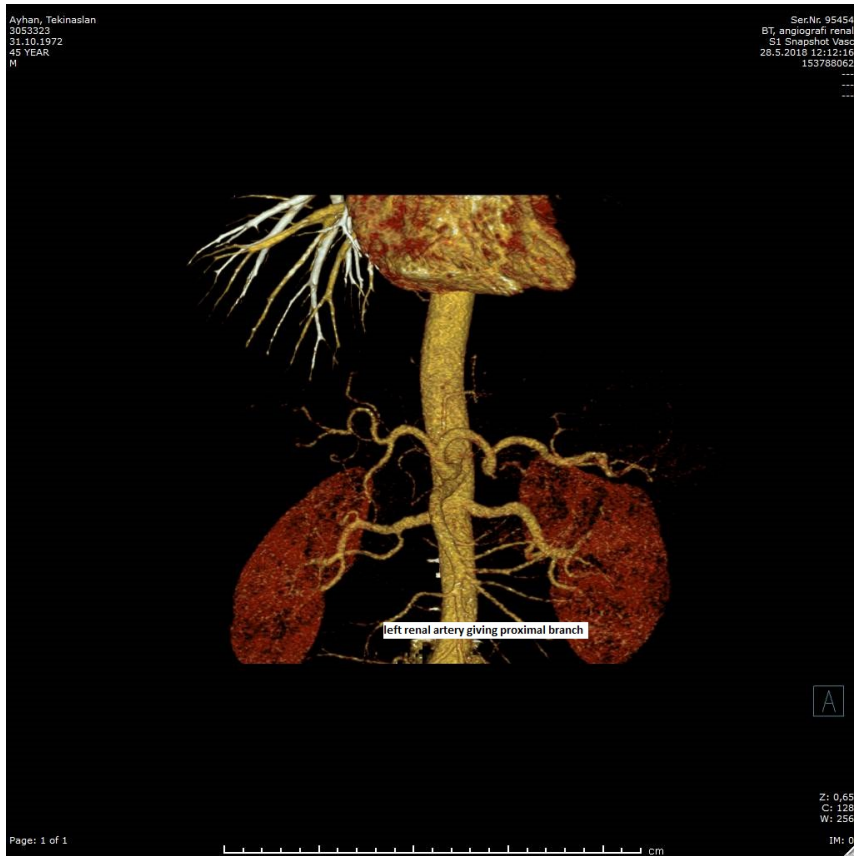
Bezmialem Vakif University

Purpose: Kidney transplantation in patients with vascular anomalies requires technical experience. There are studies showing that these grafts have higher complication rates in long term. 90% of the transplants were received from living donors in the first six months of 2018. This results in dealing with possible vascular anomalies. In this report we present the results of our living donor kidney transplantations in patients with vascular anomalies.

Material and method: Of the 24 living laparoscopic donor nephrectomies performed between 2015 and 2018, 6 had vascular anomalies. Renal arterial and venous anatomies of the donors were demonstrated by 3D reconstructed CT renal angiography. Depending on the case, transplantation was performed by anastomosing the vessel separately, pantaloon anastomosis or by ligating the vessel proximally.

Findings:





Two of the patients had double left renal vein. In these patients veins were separately anastomosed to external iliac vein. In one patient it was detected that left renal vein was joining vena cava inferiorly. Two patients had

lower polar artery originating from aorta. Anastomosis was performed by pantaloon anastomosis of main renal artery and polar artery to external iliac artery. One patient had upper polar artery originating from proximal segment of renal artery. In this case, the arterial control was performed more proximally and no further intervention was needed. Mean age of the patients was 41.2 years. Mean operative time was 258 minutes. Mean warm ischemia time and mean cold ischemia time were 2.6 minutes and 114 minutes respectively. Mean creatinine level was 1.1 mg/dl at the postoperative 1st month and 1.22 mg/dl at the postoperative 6th month. No anastomotic complication was observed in early postoperative period and in long term.

Conclusion(s): Although transplantation of kidneys with vascular anomalies can be very challenging it is not a contraindication but the risk of acute tubular necrosis is reported to be higher in patients multiple renal artery anastomoses in large series.

PP-128 THE EFFECT OF CARNITINE ON PRESERVATION OF RENAL COLD ISCHEMIA

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Purpose: Although, University of Wisconsin (UW) solution is referred to as the gold standard for the preservation from cold ischemia, studies that aiming to protract the cold ischemia time still goes on. This study was planned to evaluate the effectiveness of carnitine that is added to UW solution on renal cold ischemia time.

Material and method: Thirty two male Wistar Albino rats were divided into four groups of 8 each; Control, UW, carnitine with Ringer Lactate (RL) and UW groups. Retrieved renal grafts were preserved in solutions at +4°C after perfusion. At the same time tissue samples of 72th hour was assessed to measure Malondialdehyde (MDA) levels. Preservation solution samples were assessed at 0th, 24th, 48th, and 72th hours to measure Lactate Dehydrogenase (LDH) activity. Tissue injury was histologically scored by evaluating the hematoxylin-eosin stained paraffin sections.

Findings: Administration of carnitine to preservation solutions decreased the mean tissue MDA levels in groups 2 and 4. Carnitine administration slowed the increase of LDH levels in preservation solutions as well as the histopathological total tissue injury scores.

Conclusion(s): We conclude that the addition of carnitine to UW solution increased the preventive effect of preservative solution on cold ischemia injury of kidney.

PP-129 EVALUATION AND REJECTION OF POTENTIAL KIDNEY DONORS IN ORGAN TRANSPLANTATION CENTER: EXPERIENCE OF OUR CENTER

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Purpose: The purpose of this study was to evaluate the potential kidney donors that either accepted for donation, or rejected in a 4-year period in our organ transplant center.

Material and method: In our study, between 2014 and 2018, we retrospectively evaluated potential kidney donor and candidate kidney transplant receivers (KTxR) to our organ transplant center. All information about potential kidney donor was obtained from hospital records and transplant center records. First interview and the information to all potential kidney donors were made by the transplant coordinator and then the potential recipients and donors have been evaluated in the Department of Internal Medicine Nephrology. Potential kidney donors and candidate KTxR were also evaluated by Departments of immunology, cardiology, physiciatry, dental, gynecology, infectious disease and other departments related with medical problem if there is.

Findings: Total 194 potential kidney donors (107 (55.2 %) women) with a mean age of 45.7 ± 13.1 were admitted to Çukurova University Faculty of Medicine Organ Transplant Center between 2014-2018. The potential donors were mother (53, 27.3%), partner (47, 24.2%), sibling (42, 21.6%), father (24, 12.4%) and others (14, 5.5%). According to education level university graduates were only 9 people, 4.6%. Ages of potential kidney donor were as follows 18-30 age 23, 30-65 158 and >65 13. In donor candidates; diabetes Mellitus 1% (2), hypertension 5,7% (11), HBsAg (+) 4,67% (5), anti-HCV (+) 1% (2) were detected. Candidates for KTxRs were treated with hemodialysis (124, 63,9%), peritoneal dialysis (8, 4,1%), chronic kidney disease (CKD) stage 5 (58, 29,9%) and KTxR with chronic rejection and CKD stage 5 (4, 2.1%). Panel reactive antibodies were negative in 134 potential KTxRs (69.1%). Of the potential kidney donors, 132 (68%) were eligible for donation. The 3 most common exclusion reasons for donor candidates were as follows incomplete evaluation (15, 7.7%), blood group incompatibility (10, 5.2%) and obesity (9, 4.6%). Sixty-three patients (32.5%) of 194 KTxRs candidates donated from appropriate kidney donors. Three most common reasons for not being KTxR were as follows having been unsuitable potential donor (32, 24.4%), problems of kidney recipient (47, 35.9%) and preference of other kidney transplantation center (13, 9.9%). The 3 most common problem of KTxRs for donation (24.7% of 47/194); were panel reactive antibody positivity (27, 57.4%), cardiac problems (5, 10.6%) and extrarenal problems (3, 6.38 %).

Conclusion(s): It was possible to approve 68% as suitable donor candidates and 47.7 % of them donated a kidney in our center. We can also say that to be more sensitive for the obesity because of it was frequent problem among the recipient and the potential donors.

PP-130 THE ASSOCIATION BETWEEN QUALITY OF SLEEP AND NUTRITIONAL STATUS IN STABLE RENAL TRANSPLANT RECIPIENTS

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Abstract: Purpose: Sleep disorders are common in patients with chronic renal failure (CRF). Although kidney transplantation improves kidney function and CRF related complications, sleep problems may persist. The aim of this study was to evaluate the association between quality of sleep and nutritional parameters in renal transplant recipients. Material and Methods: Seventy two renal transplant recipients (mean age: 48.5 ± 10.4 years, 58% male) with stable allograft function from our renal transplant outpatient clinic were enrolled in this study. We evaluated demographic features, medications, body mass index (BMI) and laboratory values. We calculated the estimated GFR (eGFR) using the MDRD equation. The Pittsburgh sleep quality index (PSQI) was utilized to assess sleeping patterns. According to standard cut off value of PSQI (≤ 5 to indicate good quality sleep; > 5 to indicate poor sleep quality); we stratified patients as group 1 (PSQI ≤ 5 ; n: 36) and group 2 (PSQI > 5 ; n:36). Results: The mean post transplantation time and BMI were 37.1 ± 23.2 months and 25.5 ± 0.6 kg/m², respectively. The mean global PSQI score of study population was 5.4 ± 2.6 . Patients with living donor transplantation had better sleep quality scores than cadaveric patients (5.4 ± 0.4 vs 7.4 ± 0.3 ; $p=0.001$). In obese patients (BMI ≥ 30 kg/m²), BMI was positively correlated with PSQI. In correlation analysis, PSQI was negatively correlated with BMI ($r: -0.709$, $p=0.001$) and serum albumin levels ($r: -0.280$, $p=0.017$). The clinical demographic characteristics and serum hematocrit, GFR, calcium, phosphorus and CRP were similar in both groups. The mean serum albumin was 4.3 ± 0.8 vs 3.6 ± 0.1 g/dl ($p=0.038$); the mean PSQI was 4.1 ± 0.6 vs 8.7 ± 0.2 ($p=0.001$), the prevalence of living donor transplantation was 30.5 % vs 72.2 % ($p=0.01$) and the prevalence of obesity (BMI ≥ 30 kg/m²) was 22.2 % vs 52.7 % ($p=0.001$) in group 1 and 2, respectively. In multivariate regression analysis, serum albumin (95%CI: -1.58 - -0.05; $p=0.037$), living donor transplantation (95%CI: -2.07 - -0.294, $p=0.01$) and BMI (95% CI: 0.225- -0.408; $p=0.001$) were detected as the predictors of PSQI. Conclusion: Poor quality of sleep prevalence increases in obese renal transplant recipients. Moreover, impaired nutritional status may contribute to poor quality of sleep after renal transplantation.

PP-131 IMPACT OF ANGIOPLASTY ON STENOSIS OF THE RENAL ARTERY OF THE TRANSPLANT (SRAT)

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Introduction: Renal transplantation is the treatment of choice for terminal chronic renal failure. SRAT is the most common vascular complication (1-6%). The aim of this work is to determine the prevalence, characteristics, therapeutic modalities as well as the impact of endovascular treatment (TRT) on the evolution of renal function and hypertension.

Patients and methods: Monocentric retrospective study, including 160 renal transplant patients between 1981 and 2015. The main inclusion criterion is the presence of an SRAT on 2 doppler ultrasounds with velocities > 190 cm / s and a downstream flow disturbance, the stenosis significant $\geq 70\%$ light of the vessel.

Results: SRAT was present in 25 patients, a prevalence of 15.62%, this stenosis was significant in 6 patients who required endovascular treatment. Their mean age is 39.83 ± 17.7 years with a sex ratio of 4. The TRT immunosuppressant maintenance is based on corticosteroids, mycophenolate mofetil and ciclosporin A in all patients.

The diagnosis is early (<3 months) for 5 of the 6 patients (median [60.4d] and late [549d]). The location is ostial in all cases. All patients had high blood pressure (HBP), worsened in 83.3% of cases and de novo in 16.7%. A worsening of renal function was noted in 4 patients. The median clearance was 36.0 mL / min / L and 73 m2 (27-61). Renal failure was present in 83.33% of cases, worsened in 66.6% of cases. No post-angioplasty complication was recorded. In addition, there is persistence of non-significant stenosis in 3 patients. The results are satisfactory with a delta (δ) serum creatinine average of 7.8 ± 25 mg / L, a δ SBP of 25.0 ± 10.5 mmHg and a δ DBP of 15 ± 10.5 mmHg.

Discussion: The frequency of SRAT varies according to the series, from 1 to 23% [1]. In our study, this frequency is 15.62%. According to the data of the literature, the delay of appearance is most often precocious in the first year of the post-transplant. This delay in our patients is on average two months.

Conclusion: SRAT is the first vascular complication in our transplant patients, angioplasty is a good alternative in case of rebel HBP and / or graft dysfunction.

PP-132 HEMODYNAMIC EFFECTS OF ALEMTUZUMAB AND BASILIXIMAB AS INDUCTION THERAPY IN KIDNEY TRANSPLANTATION SURGERY

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Purpose: In Mongolia we utilize the monoclonal antibodies directed against CD52 or CD25 in combination with lower doses of conventional agents in kidney transplantation.

We started the immunosuppressive induction either by Campath-1H (Alemtuzumab) or by Simulect (Basiliximab) at the time of kidney transplantation surgery. One of the side effects of Campath-1H is the hemodynamic instability during the kidney transplantation anesthesia. Therefore, we aimed to compare the hemodynamic effect of both immunosuppressive agents in practice of kidney transplantation procedures in Mongolia condition.

Material and method: In this study there were included 76 patients who underwent the kidney transplant surgery during 2006-2017 in the First Central Hospital of Mongolia, 21 female, 55 male and aged from 16-60. The patients were randomly selected in to two groups depending from which immunosuppressive drugs were used as induction. In 45 patients were used alemtuzumab, in 31 patients basiliximab at the time of surgery. We measured hemodynamic parameters (heart rate, systolic, diastolic and medium blood pressure, O₂ saturation) by patient monitor “Philips IntelliVue MX 800” and “Vigilance II” (Edwards Lifesciences) and recorded vital signs. The cases, which needed the hemodynamic intervention like dopamine, norepinephrine and ephedrine, were registered.

Findings: In 34 cases from total 76 patients had to use the variety of vasopressors in order to keep the hemodynamics in appropriate range. The hemodynamic intervention needed in 25 (55.5%) cases in alemtuzumab group and 9 (29.03%) cases in basiliximab group. Even with these hemodynamic intervention the mean blood pressure was 7.4 ± 2.4 lower in alemtuzumab group in 20, 40 60 minutes measurements after the initiation of Immunosuppressive drugs.

There was a direct positive correlation between heart rate (0.6) in 20minutes after induction and lowering of diastolic BP (0,6) in basiliximab group. Above mentioned findings suggest that alemtuzumab comparing basiliximab causes more intense hemodynamic changes in large number of patients.

Conclusion(s): In alemtuzumab group registered a more dramatic hemodynamic changes compare to basiliximab group in which encountered a mild hemodynamic effects.

Immunosuppressive drugs as like alemtuzumab have a significant hemodynamic effects especially in patients who had initially hemodynamic deteriorated at the time of induction of general anesthesia.

PP-133 NEW-ONSET DIABETES MELLITUS AFTER KIDNEY TRANSPLANTATION

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Purpose: New-onset diabetes after transplantation (NODAT) contributes into cardiovascular disease and infection, reducing graft and patient survival. To improve the outcome of kidney transplant recipients (KTR), it is of great interest to know precisely the incidence of NODAT in KTR. The purpose of our study is to assess the incidence of NODAT in kidney recipient.

Material and method: This study included 63 non-diabetes renal allograft recipients, transplanted from 2010 to 2016 in our department. We assessed the incidence of NODAT.

Findings: We examined all recipients of kidney transplant in our center between 2010 and 2016 and found an overall NODAT rate of 14.28% (9 patients) in whom 4 patients were diagnosed by 3 months, 3 patients between 6 and 12 months and 2 patients at 24 months. They included 6 males and 3 females of overall mean age of 36.2 years (range, 28-50 years). A positive family history for diabetes was found in 3 patients. Two patients were in overweight ($25 \leq \text{BMI} < 30$). No history of CMV infection was not in these 9 patients. In our study, 8 patients (88.9%) received tacrolimus and 1 patient received cyclosporine. After a mean follow up of 24 months, graft survival was at 98% in these 9 patients.

Conclusion(s): Regardless of the implications of NODAT for cardiovascular risk, graft function, or mortality, a diagnosis of NODAT carries great significance for the individual patient. Patients should be screened for risk factors before transplantation in order to prospectively tailor their immunosuppression and minimize the risk of NODAT. Patients at risk should be counseled on the importance of lifestyle intervention, including weight control, diet, and physical activity; as such strategy is efficient in patients at risk for type 2 diabetes. Further studies are required in our population to assess NODAT risk factor in KTR.

PP-134 FOLLOW-UP AND QUALITY OF LIFE OF LIVING KIDNEY DONORS IN UKRAINE

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Purpose: The guiding principle in transplantation should be saving health of living organ donors and the necessity of their further monitoring in order not to let potential adverse effects of living organ donation negatively influence on donor health and life (K. L. Lentine, 2017). Some authors (N. Boudville, 2014; G. Mj  en, 2017) give data of the increasing risk of post-nephrectomy end-stage of renal disease, especially among donors of the elderly age (J. L. Wainright, 2018). The aim of study was to analyze and evaluate the health status of kidney donors in the late postoperative period.

Material and method: The follow-up was $1,9 \pm 1,1$ years. Levels of proteinuria, azotemia, and glomerular filtration rate (GFR) (calculated using the Cockcroft-Gault formula) were studied. The quality of life of kidney donors was assessed using the Medical Outcomes Study-Short Form-36 questionnaire.

Findings: In the preoperative survey of donors were determined: protein content in urine 0,00 (0,001-0,03) g/l, the level of serum creatinine $85,4 \pm 22,6 \mu\text{mol/L}$, GFR $78,9 \pm 24,5 \text{ ml/min/1.73 m}^2$. In the late postoperative period, the following average indexes were determined. In a group of donors of a young age: protein content in urine 0,00 (0,00-0,02) g/l, the level of serum creatinine $93,5 \pm 20,9 \mu\text{mol/L}$, GFR $77,6 \pm 22,2 \text{ ml/min/1.73 m}^2$, physical health $51,3 \pm 6,7$, mental health $54,2 \pm 7,9$. In a group of donors of a middle age: protein content in urine 0,00 (0,00-0,01) g/l, the level of serum creatinine $91,7 \pm 21,6 \mu\text{mol/L}$, GFR $77,8 \pm 23,7 \text{ ml/min/1.73 m}^2$, physical health $51,5 \pm 7,1$, mental health $55,2 \pm 7,9$. In a group of donors elderly: protein content in urine 0,00 (0,00-0,02) g/l, the level of serum creatinine $92,3 \pm 20,3 \mu\text{mol/L}$, GFR $74,8 \pm 23,9 \text{ ml/min/1.73 m}^2$, physical health $50,6 \pm 7,2$, mental health $54,8 \pm 7,5$. The difference between the groups are statistically non-unreliable ($p > 0,05$).

Conclusion(s): In our opinion, in case of adequate pair selection of donor-recipient, on the basis of a complex examination, kidney transplantation is not only an effective method for treating of end-stage renal disease, but it is also safe for health and the subsequent renal function of the donor during follow-up $1,9 \pm 1,1$ years. However, further study of this issue with the inclusion of more respondents is required.

PP-135 KIDNEY TRANSPLANT IN IBN SINA UNIVERSITY HOSPITAL IN RABAT: 19 YEARS OF EXPERIENCE (1998-2016).

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Purpose: Renal transplantation (RT) is considered the treatment of choice for end-stage renal disease patients. This study aims to report a 19 years experience of RT in a developing country as well as the barriers to its improvement since its beginning.

Material and method: This is a retrospective study involving 136 kidney transplant recipients from 1998 to 2016. We analyzed the epidemiological data, the recipient and donor profile, the outcomes, as well as the patient and graft survival.

Findings: The mean age of the recipients was 34 ± 12 years with a sex ratio of 1.5. The vast majority of RT (92%) were from related living donors, with a clear predominance of female donors, with a sex ratio of 0.47. The grafts survival at 1 year, 5 years and 10 years was respectively 91%, 87% and 78%. The overall survival of our patients at 1 year was 98.5%, it remained relatively stable over the years. The total number of RT remains small but has been improving over the last 5 years with an average of 13 RT / year. Living donors follow-up was very reassuring, showing a GFR greater than 60 ml / min and negative proteinuria for all patients. Renal Transplant from brain-dead donors started in 2014 in our center, and represents only 8%. Overall, our results are satisfactory and agree well with those of the literature.

Conclusion(s): Kidney transplant activity has continued to evolve since its beginning at the Ibn Sina University Hospital in Rabat, thanks to the motivation and expertise of the multidisciplinary teams involved. The issues and constraints in our center are different from those in other countries, including the shortage of deceased donors and the lack of widespread health insurance. Kidney transplant is a social project, which requires to combine efforts and engage in a national debate.

PP-136 EPIDEMIOLOGICAL AND EVOLUTIVE PROFILE OF URINARY INFECTIONS POST KIDNEY TRANSPLANTATION

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Introduction: Urinary tract infection (UI) is the most common infectious complication in post kidney transplantation. The purpose of our study is to describe the characteristics of these infections within our kidney transplant population (KT).

Materiel and methods: This is a retrospective study including 57 KT followed during first 6 months of the KT. We evaluated the episodes of UI post KT and their impact on the graft function. The UI taken into account are prostatitis, cystitis, acute pyelonephritis, and asymptomatic bacteriuria (AB) Impairment of renal function was assessed following the classification of RIFLE.

Results: 33 patients had ≥ 1 episode of UI, a prevalence of 57%. The median age of patients was 40 years with a sex ratio of 1. The total number of UI was 83, a median of 2 episodes / patient. The median occurrence of the 1st UI was 8 days. The AB accounted for 78.3%, the APN 37.6%, the prostatitis 1.2%. 43.7% of the APN were accompanied by positive blood cultures. The germs frequently found are Echerichia Coli (48%) and Klebsiella Pneumoniae (38.5%). Among the germs whose sensitivity could be specified 9 (10 , 8%) were ESBL, 2.4% were multiresistant. 19% of APN were complicated by an AKI.

Conclusion: The prevalence of post KT UI is high but represented by a large majority of BAs without impact on the graft function. These infections are occurring very early with a resistant profil. A reevaluation of the post operative infection prevention strategies is necessary.

PP-137 INCIDENCE OF CARDIOVASCULAR EVENTS AND ASSOCIATED RISK FACTORS IN KIDNEY TRANSPLANT PATIENTS

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Purpose: kidney transplant (KT) recipients are at significantly higher risk for morbidity and mortality compared with the general population, largely attributed to cardiovascular disease (CVD). This study analyzed the incidence of cardiovascular events (CVE) after KT in 66 kidney recipient

Material and method: This study includes all adult kidney recipient (66 patients) between October 2010 and December 2016 in one center. Traditional cardiovascular risks factors analyzed were age, gender, blood pressure, cholesterol, presence of diabetes and obesity.

Findings: During 3 years follow up period, CVE was noted in 11 patients (16.6%). The recipients included 8 males and 3 females of overall mean age of 40 years. The waiting time on dialysis was more than 1 year in 81.8%. Pretransplant hypertension was present in 13% of cases. Overweight was noted in 36.36% of cases. There are two major and overlapping categories of cardiovascular disease (CVD): *Disorders of cardiovascular perfusion including atherosclerotic CVD (ischemic heart disease (1.5%), cerebrovascular disease (3.07%), and peripheral vascular disease (13.8%) and *disorders of cardiac function including congestive heart failure (1.5%) and left ventricular hypertrophy (21.53%). One patient has diabetes before KT and 5 patients (7.5%) developed new-Onset diabetes. At 3 years Graft survival was 99.96% and patient survival was 99.98%. One patient died because of cerebral vascular event.

Conclusion(s): The excessive risk for CVD like observed in our study, is related to a high prevalence and accumulation of atherogenic risk factors before and after KT. Some risk factors associated with CVE are modifiable like obesity, smoking, hypertension, diabetes are hyperlipidemia. The risk for obesity is increased in steroid-treated patients. Removal of dietary restrictions after KT and physical inactivity are other important contributors to post KT obesity. Long time follow up period is necessary to evaluate CV events related mortality and patient survival.

PP-138 PAGE KIDNEY IN TRANSPLANT KIDNEY

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Purpose: To differentiate Rejection and Surgical complications in early Graft dysfunction

Material and method: 32 year old male patient with Chronic glomerular nephritis as native kidney disease , on Maintenance hemodialysis ,received a kidney from spouse after all assesment.He had immediate graft function soon after transplant. Day 3 Creatinine started worsening with falling urine output. All imaging facility including CT was normal. Day 5 , he had complete anuria with doubling of serum creatinine, with normal tacrolimus levels.Recieved Plasma exchange and Hemodialysis and ATG without any improvement.Graft biopsy not done due to increased apTT

Findings: In view of Fall in Hemoglobin , Patient underwent a repet CT scan which showed a large hematoma in posterior aspect with compession of renal parenchyma. Patient shifted to OT and Hematoma evacuated. A small Capsulartear was found in the upper pole of the graft kidney.

Graft function improved immediately post operative, with good output .

Subsequent course uneventful and stable graft function

Conclusion(s): Early Graft dysfunction need not be always due to rejection.Careful evaluation with repeated imaging can help in diagnosing rare surgical complications like Page Kidney

PP-139 LYMPHOPROLIFERATIVE DISEASES POST-RENAL TRANSPLANTATION

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Purpose: Lymphoproliferative diseases represent one of the potentially lethal complications of organ transplantation, forming a group of heterogeneous lymphoid proliferations by their clinical presentation and histological aspects, ranging from reactive plasma hyperplasia to the appearance of malignant lymphomas. The appearance of these pathologies is around 1% in renal transplant patients.

Material and method: We report 3 cases of kidney transplant patients who presented after renal transplantation lymphoproliferative diseases. The aim of our work is to illustrate the clinical, para-clinical, therapeutic and evolutionary presentations.

Findings: This is about three renal transplant patients, one woman and two men, aged 49, 21 and 65, respectively. The transplanted kidney to the female patient came from a Brain death donor and in the other 2 patients from relative living donors. The diagnosis of the lymphoproliferative disease in the female patient was diagnosed following a haematological attack, motivating the realization of a myelogram that confirmed a light chains myeloma. For the 2 other male patients, they presented a tumor syndrome, a biopsy performed in these 2 patients revealed large cells of B lymphoma associated with a positive EBV PCR. The average time between transplantation and diagnosis was between 1.5 years and 15 years. For the female patient, she received a chemotherapy protocol based on dexamethasone, cyclophosphamide and thalidomide. The evolution was marked by the return on hemodialysis and then the death of the patient following infectious complications. For the 21-year-old patient, he benefited from the R-CHOP chemotherapy protocol with a clinico-radiological remission, and an improvement in the renal function. For the 65-year-old patient, a rituximab-based treatment was initiated with reduced immunosuppression. The evolution was marked by the death of the patient

Conclusion(s): The lymphoproliferative diseases post renal transplantation differ from those of the immunocompetent subject by their viro-induced trait (EBV), their frequent extraganglionic localization, the possibility of brain damage and their potential response to a decrease in immunosuppressive therapy. The occurrence of a lymphoproliferative diseases constitutes an evolutionary turning point which threatens the vital prognosis of patients and the functions of the graft, It increases the mortality rates and the returns to dialysis. Patient survival has been improved in recent years through prophylactic measures (avoid EBV infection for seronegative patients) and therapeutic ones (decrease of immunosuppressors).

PP-140 ACUTE DIARRHEA IN POST RENAL TRANSPLANTATION: 29 CASES

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Purpose: Acute diarrhea is a frequent complication in post renal transplantation, occurs in 22 to 50% of renal transplant recipients, its etiology are multiple, infectious or medical, which can complicate severe acute renal failure with risk of graft loss, that's why targeted treatment must be appropriate and adapted according to epidemiological data.

Material and method: In a retrospective descriptive study, we recorded 29 cases of renal transplant patients who developed acute diarrhea after renal transplantation (3 or more fluid stools / day). Patients with intestinal inflammatory disease and those with diarrhea Exceeding four weeks were excluded.

Findings: The average age of our patients is 37.4 (18-57) with sex ratio 4/3, the onset of post transplantation diarrhea varies between 1 and 186 months with an average of 44 months, clinical signs Were digestive 34%, fever in 10%, alteration in general condition and weight loss in 1 case, 55% of the cases showed no accompanying signs. All our patients were under immunosuppressive treatment based on corticosteroid therapy and Mycophenolate Mofetil (MMF), 34% patients on Tacrolimus, 65% of patients on ciclosporin. The mean duration of diarrhea was less than one week in 68.9% and more than one week in 31%. Etiology was infectious in 24%, treatment-related in 31%, secondary to CMV infection in 20 % And without detectable etiologies in 20%, the dosage of T0 ciclosporin was more than 150 in 24%, the prescribed dose was reduced in these patients. Hypotension was found in 5 cases (17.2%), aggravation of renal function in 6 cases (20%), and hyper-leukocytosis in 27.5% of the patients. The germs detected were E.coli type in one patient, candida albican in another and entamoeba histolitica in five patients, urinary tract infection was associated in 20.6% of cases, 55% of patients were treated with antibiotics, the rest Received asymptomatic treatment, six patients had recurrence, with good progression and return to creatinine nadir in all our patients.

Conclusion(s): Diarrhea is a frequent complication in renal transplant recipients. Its etiologies are multiple and include infectious and non-infectious causes which are multifactorial and sometimes expose to a risk of loss of the graft and even the patient. Some Immunosuppressants agents are considered to be susceptible to the occurrence of infectious or non-infectious diarrhea; The latter is an elimination diagnosis and impose a therapeutic adjustment.

PP-141 DONOR CHARACTERISTICS OF INTESTINAL GRAFT IN TURKEY

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Purpose: Intestinal transplantation is a challenging procedure and success of the intestinal transplantation depends on many factors. Suitable donor selection is the one of the important point. The characteristics of suitable donor for intestinal graft has not well defined yet. We aimed to analysis the donor characteristics of intestinal grafts in Turkey and discuss the results with the literature.

Material and method: We retrospectively analyzed the donor characteristics (age, weight, cause of death, blood type, creatinine level, serum Na, etc.) of intestinal graft in Turkey. Also recipient medical records like age, weight, waiting time on the list, etc. were analyzed. The results were presented by percentage and numbers.

Findings: Forty two patients with intestinal failure have been enrolled for intestinal transplantation since 2003. Thirty two patients underwent intestinal transplantation. Five patients on waiting list were died. The present study includes full data of 24 intestinal transplant recipient and intestinal graft. Only 14 donors (58.3%) were fit for The USA Organ Procurement and Transplantation Network criteria for intestinal transplantation. Median donor recipient body weight ratio was 1,41. (min: 0,84, max: 8,00) But only 21.7 percent of transplantations was performed with ideal weight match. (0,76-1,1)

Conclusion(s): Intestinal transplantation activity in Turkey is in progress. Donor shortage leads to use a number of unideal donors in Turkey. Although reduced size intestinal grafts could be used for pediatric patients, recipient donor weight match is still the most important problem for improvement of intestinal transplantation activity.

PP-142 RECONSTRUCTION OF STAPLER LOCKED UP COMPLICATION WITH A GONADAL VEIN

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Purpose: The objective of this presentation is to share our experiences with a successful reconstruction of a short graft renal artery using a gonadal vein, which occurred a stapler locked up complication during a laparoscopic donor nephrectomy.

Material and method: A 27-year-old man was referred to our clinic for a living-related renal transplant with a diagnosis of end-stage renal disease. The donor was with his mother. At last, a laparoscopic donor nephrectomy was planned. Stapler is locked during the cut of renal artery. Urgent intervention was performed to maintain the patency of renal allograft and to stabilize the donor. Emergency open technic is used. Donor nephrectomy was completed with cutting the artery above the stapler line then after we had a short remaining segment of renal artery.

Findings: We decided to use the elongation of the graft renal artery using the gonadal vein of the same side was decided. End-to-end anastomosis was performed. After elongation of graft renal artery, anastomosis to internal iliac artery was performed. The transplant procedure was completed successfully. The kidney functioned immediately. Doppler ultrasound revealed that perfusion of the kidney was normal. The postoperative creatinine levels of recipient were in the normal ranges. Daily urine output was normal. There are not enough publications about elongation of graft renal artery using gonadal vein.

Conclusion(s): Elongation of a short remaining graft renal artery by using gonadal vein seems to be a simple, safe, and reliable method. This technique provides an alternative approach for the reconstruction of short renal arteries in living-donor kidney transplants.

PP-143 THE VALUE OF DOPPLER ULTRASOUND IN THE IDENTIFICATION OF THE CAUSE OF THE INTRAOPERATIVE LOW URINE OUTPUT AFTER KIDNEY TRANSPLANTATION: A REPORT OF TWO CASES.

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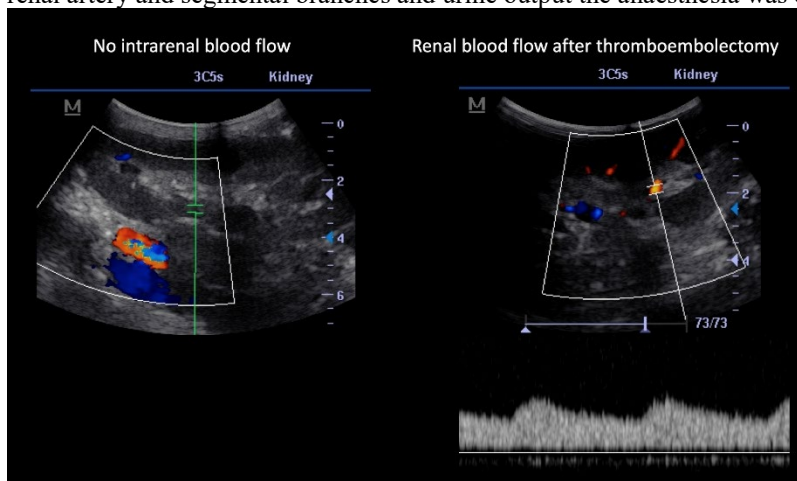
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Objective: Patients with end stage renal diseases mostly have systemic diseases, ie hypertension, diabetes which may be associated with vascular compromise. Vascular complications incidence is reported as 3% to 15% after renal transplantation. (1) Doppler ultrasound imaging along with measurement of hemodynamic parameters (pulsatility index [PI], resistive index [RI]), are useful in predicting the outcomes of kidney transplantation. Immediate RI measurement which is done within 24 hours after transplantation is positively associated with transplant failure and delayed graft function.(1) In our practice renal USG assessment and measurement of RI is done in the operating room at the end of the surgery before extubating the patient thus the causes of insufficient intraoperative (post-anastomosis) urine output is evaluated.

We aim to present two of our patients with insufficient intraoperative (post-anastomosis) urine output who are evaluated with renal Doppler USG.

Case Reports: The first case with post-anastomosis urine output less than expected had no blood flow in renal artery which is revealed with renal Doppler imaging. The patient was immediately re-operated and revision of the anastomose was done due to thromboembolism of the renal artery. After assessing the sufficient blood flow of the renal artery and segmental branches and urine output the anaesthesia was ended.



The second case had also less than expected post-anastomosis urine output but this patient's RI values were within normal range and no abnormal imaging was seen with renal USG. The patient was closely monitored after the operation and sufficient urine output was seen in the early postoperative period. Both patients were discharged without complications.

Conclusions: In renal transplantation surgery, renal Doppler USG assessment done in the operating room before extubation is beneficial for early surgical intervention to diminish graft loss due to extrarenal complications (i.e., ureteric obstruction, vascular obstruction/stenosis/compression, or large perinephric collection compressing the allograft) and predict delayed graft function.

References:

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PP-144 CHARACTERISTICS OF THE PATIENTS UNDER KIDNEY TRANSPLANTATION IN MADAGASCAR

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Purpose: Treatment of end stage renal disease is an important public health issue mainly in a developing countries. In Madagascar, according to a recent study, chronic kidney disease represents about 8% of hospitalisation and it affects particularly young and active people. Among the patients with end stage renal disease, less than 3% have an accessibility for kidney transplantation. The goal of the study is to determine the characteristics of the patients who benefitted renal replacement therapy by kidney transplantation.

Material and method: We have conducted one retrospective study in two centers including both nephrology services in Universities Hospitals of Befelatanana and Ampefiloha. We included all patients kidney transplanted from 1st of January 1987 to 31st of December 2016. All characteristics of the patients before and after kidney transplantation were analyzed.

Findings: A total of 27 patients kidney transplanted were included. The mean age were 43.5 ans +/- 9.5ans. The sexe-ratio were 1.2. In 85.2%, the kidney transplantation were done in patients from higher socioeconomic classes ($p < 0,05$). In 100% of cases, transplantation were done with living and related donors. Every kidney transplantation surgeon were done abroad (India, Egypt and south Africa). Causal nephropathies were due mainly to diabetic nephropathies in 44.4%, followed by vascular nephropathies in 37% and other glomerular nephropathies in 18.6%. Before transplantation, the serum creatinine level were $837 \pm 388 \text{Umol/l}$. The serum creatinine of the graft were $97 \pm 12,2 \text{Umol/l}$ in the first medical follow up in Madagascar (3th month after transplantation). Wysolone, tacrolimus and mycophenolate were the most useful immunosuppression therapy. The survival rate one year after transplantation were 91%. Complication were due mainly to infection like pneumocystis infection.

Conclusion(s): In developing countries like Madagascar, kidney disease affects particularly young people, the kidney transplantation is the best treatment of end stage renal disease compare to a chronic hemodialysis. According to this study, it is accessible only for patients from higher socioeconomic classes. To improve the accessibility to end stage renal disease care, our challenge is to practice the surgeon in Local Hospital. It may be benefits for every kinds of patients and reduce its costs.

PP-145 EFFECT OF MELATONIN ON KIDNEY COLD ISCHEMIC PRESERVATION INJURY

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Purpose: Melatonin is a potent free radical scavenger of reactive oxygen species, nitric oxide synthase inhibitor and a well-known antioxidant secreted from pineal gland. This hormone has been reported to protect tissue from oxidative damage. In this study, we aim to investigate the effect of melatonin on kidney cold ischemia time when added to preservation solution.

Material and method: Thirty male Wistar albino rats were divided equally into three groups; Ringer Lactate (RL) solution, University of Wisconsin (UW) solution with and without melatonin. The serum Lactate Dehydrogenase (LDH) activities of the preservation solutions at 2nd, 24th, 36th, and 48th hours were determined.

Findings: Tissue malondialdehyde (MDA) levels were also measured and a histological examination was performed at 48th hour. Melatonin that added to preservation solution prevented enzyme elevation and decreased lipid peroxidation in preservation solution when compared to the control group ($p<0.05$). The histological examination revealed that UW solution containing melatonin significantly prevented the kidney from pathological injury ($p<0.05$).

Conclusion(s): Melatonin added to preservation solutions such as UW solution seemed to protect the tissue preserved effectively from cold ischemic injury for up to 48 hour.

PP-146 ERYTHROCYTOSIS AFTER KIDNEY TRANSPLANTATION : OUR CENTER EXPERIENCE

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Introduction/Purpose: Erythrocytosis is a fairly common complication after kidney transplantation, which occurs most often during the first year. Several risk factors have been incriminated. The purpose of our work is to assess its prevalence, to describe the clinical and therapeutic aspects, and to determine its risk factors in our center.

Material And Methods: Retrospective and analytical study of all the patients who had a kidney transplantation in our center, from January 1st, 2007 to December 31st, 2017. We analyzed the characteristics related to the recipient (age, sex, duration of hemodialysis, antecedent of anemia before the transplantation, causal nephropathy), as well as the evolution after the transplantation (rejection episode, delay after transplantation, graft function). The statistical analysis was performed using the Epi Info software.

Findings: From January 1st, 2007 to December 31st, 2017, 155 kidney transplantations were performed in our center, including 124 from living donors. During follow-up, 21 patients (13%) developed an erythrocytosis, with a male predominance (77%), of whom 3 were smokers. The mean duration of hemodialysis before the transplantation was 43 months (+/- 8 months), 3 patients had polycystic kidney disease, anemia was present before the transplantation for 4 patients. The average age at the time of transplantation was 35 years (+/- 6,8 years). The average delay of occurrence of erythrocytosis was 11 months (+/-3 months). Mean plasma creatinine concentration was 113 $\mu\text{mol/l}$, and no rejection episode after transplantation has occurred. The mean hemoglobin concentration was 16.9 g/dL, and the hematocrit value was 53%. The dosage of Erythropoietin was performed for one patient, and was normal. All patients were treated with Angiotensin-converting enzyme inhibitors (except for one patient) and platelet anti-aggregation. Bleeding sessions have been performed for 10 patients. In univariate analysis, only the male sex and the absence of anemia before transplantation were statistically associated to the occurrence of the erythrocytosis after kidney transplantation ($p < 0,05$).

Conclusion: Erythrocytosis is a common complication after kidney transplantation, occurring mainly in male patients, and involving the role of androgens in its pathogenesis. Its incidence has decreased significantly due to the use of Mycophenolate Mofetil (compared to Azathioprine). Several factors contribute to its occurrence, mainly the persistence of an inappropriate secretion of Erythropoietin by the native kidneys as well as the excessive activation of the Renine-Angiotensine-Aldosterone system.

PP-147 FACTORS CONTRIBUTING TO THE ATTRIBUTION OF A RENAL GRAFT

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Introduction: Access to kidney transplant from a brain dead donor (BDD) is made from a waiting list according to nationally validated scoring. The purpose of this work is to highlight the characteristics of all the patients on the waiting list of our structure, as well as to look for the factors favoring graft allocation.

Material and methods: Analytical, monocentric, retrospective Inclusion criteria: Patients registered on the waiting list (kidney transplant / BDD) at Ibn Rochd Casablanca Hospital: September 2010 - April 2017. The statistical analysis compared 2 groups of patients: transplanted versus non-transplanted from this list.

Results: 76 patients were on the list, of which 23.6% were transplanted after an average time since enrollment of 738.16 days. 50% of the patients were between 30 and 40 years old. 50% had a higher level of education. The predominant blood group was A (43.5%) and anti-HLA antibodies (AC) were present in 61.8% of enrolled patients. The analytical study found as favoring factors of attribution: not to be more than 50 years old ($p = 0.02$), to have a higher level of education ($p = 0.006$), to have a profession ($p = 0.023$), not be blood group A ($p = 0.03$) and the absence of AC anti HLA ($p = 0.005$).

Discussion: Waiting time is a major criteria of attribution and can alone make the difference. However, the longer the waiting period is, the worse the results of the transplant are. Some authors propose to count this delay since the beginning of the care in dialysis. The presence of anti HLA antibodies is mainly due to the pre-transplantation transfusions testifying to the absence of early management of patients with chronic renal failure. The absence of these antibodies is a favorable factor because anti-HLA immunization often represents a barrier to access to the transplant.

Conclusion: For the sake of fairness, the attribution process must be perpetually optimized. In order to overcome the lack of grafts, organ donation should be promoted, the number of expanded-criteria donors increased, and transplantation from brain dead donor should be developed.

PP-148 PEDIATRIC KIDNEY TRANSPLANTATION: A SINGLE-CENTER EXPERIENCE FROM MOROCCO

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Introduction : Kidney transplantation is the treatment of choice for children with end stage renal disease, by providing a better social and educational situations, with a higher survival. However, it is a real surgical challenge, given the small size of the vessels and ureters which implies increased risk of urologic complications. The purpose of our study is to report the experience of our center in pediatric renal transplantation.

Material And Methods : 11-year retrospective study of all children who had a kidney transplantation in our center, from January 2007 to February 2018. We analyzed the characteristics related to patients and grafts, anesthetic and surgical techniques, therapeutic and evolutionary aspects.

Findings : 23 children had a kidney transplantation in our center, with a mean age of 11.47 years ($\pm$ 1.9 years), and a female predominance of 60.8%. The mean weight was 35.7 kg ($\pm$ 4.6 kg). Causal nephropathies were mostly congenital urological anomalies (34%), and glomerular nephropathies (26%). The transplantation was preemptive for two children. All the grafts were from living donors. Induction immunosuppressive therapy included Basiliximab and Steroids, and maintenance therapy included Mycophenolate mofetil and Tacrolimus. The anesthesia was used by inhalation (13 cases), and intravenous (10 cases). The mean duration of anesthesia was 7.1 hours ($\pm$ 1.1 hours). The arterial anastomosis was performed on the primary iliac artery in 52.7% of cases. The mean warm ischemia time was 1.7 hour, and cold ischemia 1.2 hour. The normalization of graft function was obtained after one day in 65% of cases, 3 days in 17.7% of cases, 6 days in 13% of cases, and 25 days in 4.3% of cases. The average stay duration in intensive care unit was 1,2 day, in nephrology unit was 8.2 days. No deaths occurred.

Conclusion : Although the activity of pediatric kidney transplantation has been developed in our country since 2007, there is still a lot of children in need of kidney grafts. A better organization of the practice of organ transplantation and the generalization of organ donation from brain dead donors to children are the only effective ways to increase the number of children who can benefit from a kidney transplantation. In addition, it requires a special close collaboration between pediatrician, pediatric surgeon, urologist, nephrologist and anesthetist.

PP-149 ANTITHYMOCYTE GLOBULIN OR BASILIXIMAB: WHICH IS BETTER FOR KIDNEY TRANSPLANTATION FROM LIVING DONOR

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Introduction: Basiliximab(BAX) and antithymocyte globulin (ATG) had a great impact on the graft survival and opened new perspectives for extended criteria donor transplantations. The objective of our study is to assess the efficiency and safety aspects of those two therapies. **MATERIALS AND METHOD:** It's a descriptive and analytic study lead in the department of nephrology and kidney transplantation in the University Hospital of Casablanca Morocco. We included the recipients from living donors whom had immunosuppressive protocol. We defined 2 groups: the first receiving ATG and the second with BAX. All patients received corticoid, calcineurin inhibitors and mycophenolatemofetil. Data was analyzed using SPSS software and Chi square test was used to assess the comparison between the 2 groups. The result was considered significant when $p < 0,05$.

Results : We had 68 patients, 35 received ATG and 33 BAX. The mean age for recipients in group 1 was 37,3 years $\pm$ 11,8 and for donors 43,8 years $\pm$ 13. Concerning the group 2, recipients' age was 25,5 years $\pm$ 13 and for the donors 44,3 $\pm$ 11,3 years .Analytic study showed that serum creatinine level was lower in group 2, mean serum creatinine level 9,86 :mg/l ($p < 0,01$) with a nadir at 9,09mg/l without delayed graft function ($p=0,003$) and less hematological complications ($p=0,03$). We didn't notice any significant difference concerning graft rejection, graft function at one year post transplantation and also no difference in terms of infectious or neoplastic complication.

Conclusion : Many studies showed better outcomes with ATG than BAX on graft function but also with higher incidence of infectious and neoplastic complications. The results concerning graft function evolution are similar to other studies assessing their efficiency and safety .Basiliximab had better outcomes concerning short-term evolution. But there was no significant difference in long term evolution between the two therapies. Therefore, it seems legit to use Basiliximab as an induction agent for kidney transplantation from living donors.

PP-150 QUALITY OF LIFE POST KIDNEY TRANSPLANTATION IN AHMED GASIM HOSPITAL

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Purpose: Lifelong immunosuppression is inevitable after kidney transplantation but the side-effects of medication can compromise patients quality of life (QOL). The aim of this study was to evaluate QOL and psychological well being among a cohort of Sudanese kidney transplant recipients in relation to gastrointestinal symptom scores.

Material and method: This is a descriptive cross sectional study conducted in Ahmed Gasim Hospital for Cardiac Surgery and Renal Transplantation, Khartoum, Sudan. QOL was assessed using a translated version of Kidney Disease Quality of Life instrument (KDQOL-36). Psychological well being was assessed using the Depression, Anxiety and Stress score (DAS). Gastrointestinal symptoms were assessed using the Gastro-intestinal Symptom Rating Scale (GSRS).

Findings: We conveniently recruited 120 adult kidney transplant recipients from the transplant out-patient clinic. This included 72(60%) males and 48(40%) females with a mean age of 44 ± 12 years and a median duration post transplant of 27 months (range 7-156 months). Patients were maintained on tacrolimus and prednisolone in addition to azathioprine (36.7%), mycophenolate mofetil (MMF) (30.8%) or mycophenolic acid (MPA) (32.5%).

Patients' mean scores in the physical composite, mental composite, symptoms of kidney disease, effect of kidney disease and burden of kidney disease domains were 50 ± 8 , 49 ± 9 , 88 ± 12 , 90 ± 12 and 79 ± 21 respectively. Younger age was associated with better scores in the symptoms of kidney disease domain. Female gender and full/partial employment were associated with better scores in the burden of kidney disease domain.

The prevalence rates of depression, anxiety and stress were 19%, 13% and 7% respectively. The DAS score was not correlated with the mental composite score of KDQOL-36, but had significant negative correlation with the physical composite score, symptoms of kidney disease score, effect of kidney disease score and burden of kidney disease score.

All patients reported at least one gastrointestinal symptom with a median GSRS score of 24 (range 15-66). The GSRS score was not significantly different between patients maintained on MMF, MPA or azathioprine. The GSRS score was negatively correlated with the five domains of KDQOL-36.

Conclusion(s): This cohort of kidney transplant recipients displayed favorable scores in the five domains of the KDQOL-36 questionnaire. However, psychological symptoms were not uncommon and had negative correlation with KDQOL-36 scores. Gastrointestinal symptoms were very common and had significant negative correlation with KDQOL-36 scores. Figure-1: Median scores of different gastrointestinal syndromes in relation to anti-metabolite use among studied kidney transplant recipients (n=120)

PP-151 GRAFT VERSUS HOST DISEASE FOLLOWING LIVER TRANSPLANTATION: A CASE REPORT

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Purpose: Acute graft-versus-host disease (GVHD) following liver transplantation (LT) is a rare but feared complication with devastating prognosis. Fever, rash, diarrhea with or without pancytopenia are symptoms. Mortality is due to bone-marrow failure (sepsis, bleeding etc.) Because it's a rare disease, there is no evidence-based treatment protocol has been found so far, for this complication.

Material and method: We report a case of a 70-year-old man who developed post-LT GVHD with cutaneous, enteric, and bone marrow involvement.

Findings: Patient, hepatitis C virus carrier for 22years, was diagnosed with primary liver cancer with post-hepatitis cirrhosis; following Living Donor Liver Transplantation; postoperative pathology was hepatocellular carcinoma. Preoperative cytomegalovirus, Epstein Barr virus, coxsackie virus, herpes simplex virus and autoimmune body series were negative, Preoperative human leukocyte antigen type was also negative. Liver function, biochemistry and blood routine tests were within the normal range. The patient recovered smoothly within two weeks following surgery, and the transplanted liver function was normal, discharged home with routine postoperative medication (Immunosuppressants, steroid, antibiotic prophylaxis). At day 22 following transplantation, the patient was admitted to our emergency room with the complaint of weakness and episodes of crying; then hospitalized for further investigation. In the time of a week's hospitalization, hyponatremia were detected and corrected with proper iv fluid therapy. After psychiatric consultation, given two antidepressants, he was discharged to home. At day 60 following transplantation, the patient developed a scattered red rash with symptoms of gastrointestinal system, abdominal pain, diarrhea and admitted to our emergency room, re-hospitalized. Pancytopenia was detected. Peripheral blood chimerism analysis was made after hematological consultation and resulted negative. Bone marrow aspiration biopsy was in accordance with GVHD or myelodysplastic syndrome. A diagnose of GVHD was proved following excisional skin biopsy; microscopic findings were vacuolization and lymphocyte exocytosis in the basal layer, lymphocytes around numerous necrotic keratinocytes (satellite necrosis) in epidermis and perivascular lymphoid infiltration, holds the dermoepidermal junction in papillary dermis. Symptomatic therapies, including antibiotics and steroids were administered. Despite all the aggressive medical support, the patient had to be taken to the ICU, lost his life due to multi-organ failure following septic shock, on the 107th postoperative day.

Conclusion(s): Although accurate diagnosis is complicated and there is no effective therapeutic strategy for the treatment of GVHD following liver transplantation, aggressive support therapy should be provided because time is so limited. Transplant patients should be observed for rare but challenging complications though the outcome remains unchanged.

PP-152 ACCESS TO THE RENAL REGISTRY IN CHAD IN 2018

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Purpose: Cradle of Humankind, Chad (Central Africa) has only 3 nephrologists for a population of 14 million and an area of 1,284,000 square kilometers. Nephrology in Chad is embryonic. Chads 1st Public Hemodialysis Unit opened in April 2011 at NDjamena General Reference Hospital (HGRN) The 2nd public hemodialysis unit has been operational in NDjamena since January 2014 at the Renaissance Hospital (HR) These 2 units support 120 CKD5D patients and 10 patients in acute / month on average A Renal Transplantation (RT) Program is being drafted with an Act to authorize the taking of samples under development. In anticipation, we assessed the accessibility and eligibility of our patients to a TR elective and preemptive

Material and method: Multicenter descriptive study. Having collected 3000 patients followed at different stages of Chronic Renal Disease (CKD) Study period 7 years (from January 2011 to January 2018) All CKD 5 patients gave their informed consent. Epidemiological and clinical data were collected using a questionnaire and processed by Excel

Findings: 120 out of 3000 patients were CKD 5, a prevalence of 4% The average age was 51 ± 16.8 years [11 to 85 years] There were 54% (n = 61) of men and 46% of women (n = 51). HTA was noted in 58 patients and diabetes in 43 patients Non-medical factors influencing kidney transplantation:

Absence of kidney transplant program and legislation: 100% Lack of clear explanations for kidney transplant: 91% of cases Absence of hospital and professional structures (laboratory, doctors) adapted in 99% The main motivations for transplantation: stopping hemodialysis (100%) and improving the quality of life (97%)

About Medical factors: Absence of surgeon trained in kidney transplant (100%),lack of qualified resuscitators (95%), absence of a medical laboratory unit and specialized immunology (100%), lack of preparation and organization (100%) and absence of a reliable pharmacy (99%)

Discussion: Our study population was young (51 ± 16.8 years), like that of Patzera et al in the USA [7] (49.4 ± 13.9 years). On the contrary, the results of the French population and the overseas countries show a predominantly older population exceeding sixty [1]. This discordance could be explained mainly by the health system in our different countries and the aging of the Western population. e found a male predominance. Our results are similar to those of France and the Overseas Countries (+ 87%) [1]. The rate of refusal to be TR is lower in chronic hemodialysis patients in sub-Saharan countries (90%) in our series and 11% in Mauritania [2], unlike in countries where this activity is practiced (21.69%). [3]; it is 7% in Senegal in a recent study November 2017) made in Senegal by A. Missamou and F. Haddoum These differences can be explained by the level of knowledge of the constraints of explorations and possible complications related to the TR, of our different populations. The main motivations in our series being the stop of the hemodialysis (100%) and the improvement of the quality of life (97,18%) these aspects were also noted by Nizic-Kos T et al [3], as well as Sidy Aly [2]

Conclusion(s): Renal transplantation in Chad is starting No transplant program in 2018 Partnership Agreement signed between Chad and the Turkish Foundation for Transplantation in April 2018 The legal aspect is being developed To date, there are 16 renal transplant patients abroad and followed up in Chad Need to develop the sanitary system: clinical, pharmaceutical and paraclinical

PP-153 EXPERIENCE OF TWO ASTS-CERTIFIED TRANSPLANT SURGEONS IN THE PROGRAM THEY FOUNDED IMMEDIATELY AFTER COMPLETING THEIR TRAINING

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Purpose: After completing their residency training in Turkey, SGC and SC moved to Canada for kidney transplant surgery fellowship training in an American Society for Transplant Surgeons-accredited transplant program (Dalhousie University, MOTP). In this 2-year clinical fellowship program they performed 150 kidney transplant cases (per surgeon). Immediately after finishing their fellowships, they moved back and founded a kidney transplant program in a tertiary care centre in Ankara. The main objective of this study was self-assessment of their initial experience.

Material and method: All live recipients were induced with basiliximab while all cadaveric recipients were induced with thymoglobulin. Donor surgeries for live transplants were performed by pure laparoscopic transperitoneal technique. Lich-Gregoir ureteroneocystostomy technique with J stent insertion was used in all transplant surgeries. All recipients were given tacrolimus, mycophenolate mofetil and prednisone for maintenance. Demographic data were retrieved from patient database. Numerical data were calculated and reported as means or percentages.

Findings: Transplant program has been active for one year. During this time period 12 kidney transplant surgeries were performed. Among those, 5 were cadaveric transplants from brain-dead donors (41,7%). Mean recipient age was 47,2 [28-63]; 8 recipients were male (75%). Mean recipient body mass index was 24,2 [20,2-31,2]. Except for 1 live transplant recipient, all patients were on dialysis; mean dialysis time was calculated as 29,1 months [0-108]. One donor had a retroaortic renal vein; there were no other vascular anomalies in grafts. Mean cold and warm ischemia times were 307,8 [0-816] and 26,5 minutes respectively. Mean follow-up time was 6,5 months [1-12]. Two patients (1 live, 1 cadaveric) (16,7%) had minor wound complications which were treated by conservative measures. One cadaveric kidney recipient who was anuric for 9 years pre-transplant had urine leak which was successfully managed by restenting (8,3%). Delayed graft function was not observed however 1 patient (8,3%) has recently been diagnosed with rejection due to medication noncompliance.

Conclusion(s): Since our transplant program has been founded recently and mean follow-up time was only 6,5 months, our data are not sufficient for analysis of hard outcomes including 1-year graft and patient survivals. As an additional confounding factor, our patient number is relatively low –again- due to the fact that our program has been recently founded. Interestingly, our ‘cadaveric’ kidney transplant percentage was significantly high compared with the national data. In addition, our surgical complication rates were not higher than the percentages reported in the literature. We consider all these findings as encouraging for our program’s future.

PP-154 RENAL TRANSPLANTATION FROM CADAVER DONORS: SINGLE CENTER EXPERIENCE

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Purpose: Renal transplantation from cadaver donors is a widely accepted treatment option for end-stage renal disease patients.

Material and method: At the Transplantation Center of Gazi University. Between January 2006 and July 2018, a total of 65 adult cadaver renal transplants were performed. In this study, we retrospectively analyzed the surgical results as urinary, vasculature and others.

Findings: Among 65 cadaveric renal transplant recipients 34 were females and 31 were males subject. The mean age of donors and recipients were 29.44 ± 14.1 and 41.7 ± 15.1 respectively. A total of 10 (9%) surgical complications were detected. These were vascular (n = 2), urological (n = 2) and other (n = 6). As vascular: renal artery and venous thrombosis, as urological the urine leakage (n = 2) and as others: bleeding (n = 3), primer nonfunctioning (n = 1) and incisional hernia (n = 2) have been founds. One of the post-operative bleeds needed to second-look, but others' did not require surgical intervention, spontaneously regressing. One of the urine leak was treated with interventional radiology, the other one needed to the ureter revision operation. All incisional hernias (PO 8 months, 2 years, 3 years) were surgically repaired with mesh. A total of 4 grafts were surgically lost. Renal artery thrombosis (n = 1), renal vein thrombosis (n = 1), primer nonfunctioning (n = 1) and adult dual renal transplantation from pediatric donor (n = 1). Post-operative median follow-up is 62 weeks (3-121 weeks). Patient and graft survival rates for 1, 2 and 5 years are 100%, 100%, 97.3% and 97.3%, 94.7%, 88.8% respectively.

Conclusion(s): Even if our surgical technique has progressed, a limited number of cadaver organ transplants are at the top of this problem, Cadaveric renal transplantation is successfully performed in our center in accordance with the developed centers of the world. Renal transplantation is still the best treatment option for children and adults with end-stage renal disease.

PP-155 BK VIRUS INFECTION AFTER KIDNEY TRANSPLANTATION

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Introduction/Purpose : BK virus infection is common after kidney transplantation, and can lead to graft loss (in 10-50% of cases). Several risk factors have been identified. The effectiveness of treatment at the BK virus nephropathy stage remains very limited, and management is primarily preventive. The purpose of our work is to report all the cases of BK Virus infection after kidney transplantation in our center.

Material And Methods: Retrospective study of all the patients who had a kidney transplantation in our center from January 1st, 2011 to December 31st, 2017. We identified all the patients who developed a BK Virus infection after kidney transplantation, analyzed the characteristics related to the recipient, to the donor, the treatment and the evolution after kidney transplantation.

Findings : From January 1st, 2011 to December 31st, 2017, 108 kidney transplantations have been performed in our center. BK Virus infection occurred in 4 patients (3.7%), all transplanted from brain dead donors, with HLA-mismatching. The sex ratio was 2/2, with a mean age at transplantation of 35 years (+/- 5 years). The average ischemia time was 19 hours (+/- 1,2 hours). All patients received Anti-thymocyte globulin as induction therapy. The average time to onset of BK Virus infection was 19 months (+/-2,4 months). At the time of diagnosis, all patients had steroids and Mycophenolate mofetil as immunosuppressive therapy, 3 patients had Tacrolimus, and one patient had Ciclosporin. The BK virus viremia was fortuitous discovered for 2 patients during a systematic consultation, while 2 patients had a progressive graft failure with a strongly positive viremia. 3 patients underwent a percutaneous renal graft biopsy, that showed BK virus inclusions for 2 patients. Concerning the treatment, a decrease in immunosuppression was performed for all patients, with monthly monitoring of BK viremia. The renal outcome was the stabilization of the graft fonction, with decreasing and then disappearance of BK viremia for all patients.

Conclusion: BK Virus infection is a common complication after kidney transplantation, most often asymptomatic, and strongly correlated to immunosuppressive degree. The development of nephropathy is sequential (viruria, viremia then nephropathy). In the stage of nephropathy, the prognosis is poor and can compromise the survival of the graft. Management is primarily preventive, and is based on periodic monitoring by BK Virus-PCR (blood and / or urine).

PP-156 SURGICAL COMPLICATIONS OF PEDIATRIC RENAL TRANSPLANTATION AT AHMED GASIM CARDIAC AND RENAL TRANSPLANT CENTRE-

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Abstract: Surgical complications of pediatric Renal Transplantation at Ahmed Gasim Cardiac and Renal Transplant Centre – Khartoum- Sudan Abstract Background: The first successful pediatric kidney transplantation was reported in 1966. Since then, the outcomes have steadily improved. Pediatric kidney transplantation is performed in specialized centers due to its complexity. Objectives: To study the surgical complications and their impact on patient and graft survival. Methodology: Retro-prospective study performed on 61 children with ESRD who underwent renal transplantation at Ahmed Gasim Cardiac and Renal Transplant Centre, from March 2002 to June 2017. Data accumulated included demographic data, preoperative preparations, surgical technique, postoperative follow up, and surgical complications. Results: Sixty one pediatric renal transplants were done which account for 3.6% of the total kidney transplant performed in our center. All are live related kidney transplants. Thirty seven (60.7%) were males and 24 were female (39.3%) The mean age was 14, 79 yr. The major cause identified was glomerular nephritis in 7 patients (11.5%), obstructive uropathy was a cause in 3 patients (4, 9%), while the etiology was unknown in 39 patients (63, 9). Post operative surgical complications occurred in 13 recipients (25.8%). Bleeding was found in 8 recipients (13, 1%) wound infection was encountered in 3 recipients (4, 9%), ureteric leak occurred in 2 recipients (3, 2%) and lymphocele in One recipient (1, 6%). No case of graft loss due to surgical complication was reported. Conclusion: Renal transplantation remains the best modality of treatment for children with few surgical complications. Keywords: Complications, Kidney Transplant, Surgical, pediatrics, Sudan

PP-157 KIDNEY DONATION: UNTIL WHAT AGE?

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Purpose: The increase in the number of terminal chronic renal failure requiring renal replacement therapy and renal transplant candidates is increasing the demand for kidney transplants in our country. The shortage of donors in a state of encephalic death imposes the use of so-called living donors who are marginal. The purpose of this study is to determine the influence of advanced age of donors on the outcome of kidney transplantation.

Material and method: This is a retrospective single-center study of kidney transplants performed between 2008 and 2017. Two groups of recipients (G) were identified according to the age of the donor, (G1): The age of the donor is less than 50 years old: 50 cases. - Group 2 (G 2): the age of the donor is greater than or equal to 50 years (average: 54 years): 29 cases. The statistical study was carried out by SPSS18 software.

Findings: The mean age of the recipients was 34.56 ± 11.23 years (7-65 years) for G1 and 30.75 ± 10.56 years (11-52 years) for G2. The average follow-up of renal transplantation was 33 months in both groups. The two groups were comparable for acute rejection (G1: 4%, G2: 2%), vascular complications (G1: 8% G2: 3.44%) and delayed renal function (G1: 10%, G2: 10.34%) ($p > 0.005$). Urologic complications were more common in the group of donors older than 50 years (G1: 6%, G2: 20.68%) ($p = 0.002$). Mean creatinine at 1 year was 10.77 mg / l in G1 and 13.95 mg / l in G2 ($p = 0.0017$). No significant difference was observed in terms of patient / transplant survival.

Conclusion(s): Renal transplantation from elderly donors appears to be successful provided they are selected according to well-defined criteria to avoid complications in both the donor and the recipient.

PP-158 THERAPEUTIC COMPLIANCE AFTER RENAL TRANSPLANTATION: EXPERIENCE OF THE NEPHROLOGY DEPARTMENT RABAT UNIVERSITY IBN-SINA HOSPITAL

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Purpose: Poor therapeutic compliance (PTC) in renal transplantation is a modifiable cause of graft loss. The objective of our work is to evaluate the factors associated with poor therapeutic compliance in renal transplant patients.

Material and method: Cross-sectional study including 33 renal transplant patients, in the nephrology department of Ibn-Sina University Hospital in Rabat, between 2014 and 2015. We analyzed the sociodemographic parameters of the patients by using a questionnaire on the scale of adherence to prescription drugs, we divided our patients into two groups based on the presence or absence of forgetfulness of treatment, in order to investigate the factors associated with poor therapeutic compliance.

Findings: Results : The mean age of the patients is 43.9 ± 12.2 years, with no predominance of sex, with mean glomerular filtration rate of 76 ± 25 mL / min. In 70% of cases, it was a kidney transplant by related living donor. The forgetfulness of taking at least one drug during the last seven days is noted in 60% of patients, in 24% of cases it is immunosuppressive treatment. In 50% of transplanted patients, forgetfulness is related to the non-availability of the drug at the time of taking, either by work stress or by breaking the drug stock. Forgetting without reason is noted in 30% of patients. In univariate analysis, only the character of having a living donor is retained as a factor associated with a MOT, with a significant p at 0.013. Discussion : Nonadherence to treatment is increasingly implicated in the occurrence of graft loss up to 36.4% of cases, with the risk of transplant failure being 7 times greater. Non-adherence may be related to many factors, either patient-related or treatment-related. In our study, only the character of having a living donor emerged as a risk factor, which is consistent with the literature. The forgetfulness for no obvious reason is mostly associated with memory disorders remain common in renal transplant patients where their frequency was estimated at 28%.

Conclusion(s): The improvement of professional practices has yet to be evaluated, particularly in terms of relations with our patients, who can not be solely responsible for their therapeutic compliance.

PP-159 CENTRE OF EXCELLENCE IN RENAL TRANSPLANTATION - A TRANSPLANT COORDINATORS JOURNEY

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Abstract: Purpose Kidney transplantation has been happening in the metropolitan cities of India. Patients had to travel long distances and spend significant amount of money to undergo such treatment. Hence the purpose of starting a living related and cadaveric transplant program in our district, which has a semi-urban and rural population. We review the difficulties faced and our journey to become a Centre of Excellence in Renal Transplantation. Materials and method Patient awareness and willingness for renal transplantation was poor in our population. Hence we started an awareness campaign with talks, camps and programs on media to create a positive attitude towards transplantation among the public. With the guidance from Administration and active participation of our Nephrology and Urology Departments, patients with chronic kidney disease on dialysis were identified, counseled and the family motivated for organ donation. With these, we were successfully in conducting fifty living related renal transplants over the past three years. Since there was a large pool of patients with no suitable donors we moved to the next stage i.e. cadaveric transplantation. The willingness to donate organs after brain death in India is very poor because of various religious beliefs, practices and lack of education in semi urban and rural areas. With a concerted effort and cooperation from the State Transplant Committee, police and hospital personnel, we conducted our first cadaver transplantation from a young road traffic accident donor, the first outside our state capital of Bangalore, whose family was forthcoming for organ donation. Over the next few months we noticed a changed mindset and a positive attitude towards organ donation among the public and we initiated registration of donor cards. We have subsequently conducted more than ten such cadaveric transplants. The robotic program was initiated last year in our Institution and after the first 300 Urology procedures; we conducted the first robotic kidney transplant which is also the second such procedure in a teaching Institution in the country. It has been a fascinating journey for me as a Coordinator, starting from ground zero and being a part of setting up what is now a Centre of Excellence in Kidney Transplantation, with people not only coming from all over the state, but from the rest of the country and abroad as well. Conclusion Kidney transplantation in a semi urban and rural population is a difficult task in India, With a concerted effort it is possible for a dedicated co-coordinator to break the barrier and make people aware and participate in the kidney transplant program, and with due course a Centre of Excellence in this field can be achieved.

PP-160 MULTIFOCAL VARICELLA AFTER KIDNEY TRANSPLANTATION: A CASE REPORT

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Introduction: Immunosuppressive therapy has been an important step forward in the history of transplantation by prolonging graft survival, but also exposing to many infectious complications, such as Varicella. The interest of our case lies in the rarity of multi-visceral involvement of the Varicella after a kidney transplantation, its misleading presentation and its complications. We report the case of a 39-year-old patient, who had been transplanted for 5 years, and who had as immunosuppressive therapy : Steroids, Ciclosporin and Mycophenolate-Mofetil. The patient has been hospitalized in our center for an apyretic abdominal pain with vomiting, revealing an acute pancreatitis (stage C), without vesicular lithiasis. The treatment was symptomatic, with an improvement of the abdominal symptoms. The Lipasemia value also decreased, but was still positive. 20 days later, the patient developed multiple skin lesions with fever, that were suggestive of Varicella, The lipasemia also increased (40 times the normal value). An antiviral treatment had been introduced, including intravenous Aciclovir. After 4 days of treatment, an acute respiratory failure occurred, requiring the transfer of the patient to intensive care unit after being intubated. The patient died the day after the transfer.

Conclusion: The diagnosis of varicella is essentially clinical, based on cutaneous involvement : typically a maculopapular rash, that leads to many vesicles after few days. For immunocompromised patients, the clinical presentation is misleading, and includes multifocal involvements that can lead to a rapidly progressive, life-threatening disease. Acute pancreatitis associated with varicella is a rare, and potentially a serious event. The pulmonary involvement is also known for its severe prognosis. Early treatment can reverse the unfavorable course, and includes intravenous Aciclovir, to avoid multifocal involvements. In addition, as patients with kidney grafts are not allowed to receive the live attenuated Varicella vaccine, Valacyclovir prophylaxis could be proposed to these patients.

PP-161 DYSLIPIDEMIA POST KIDNEY TRANSPLANTATION IN AHMED GASIM HOSPITAL

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Purpose: Dyslipidemia post kidney transplantation is frequent and multi-factorial. It's defined as a disorder of lipoprotein metabolism manifested by elevation of the serum total cholesterol, low density lipoprotein cholesterol (LDL-C) or triglyceride concentration or a decrease in high density lipoprotein cholesterol (HDL-C) concentration.

Material and method: This is a descriptive, cross-sectional and hospital based study that was conducted between April and June 2017. It included all patients who presented for regular follow-up at the transplant clinic of Ahmed Gasim Hospital during the study period. Hypercholesterolemia was defined by serum cholesterol level more than 200 mg/dL, hypertriglyceridemia was defined by serum triglyceride level more than 150 mg/dL, high LDL-C was defined by LDL-C level more than 100 mg/dL and low HDL-C was defined by HDL-C level less than 40 mg/dL.

Findings: A total of 260 patients were enrolled in this study with a mean age of 42 ± 13 years and a median duration post transplant of 48 months (range 7-204 months). Males constituted 70.4% of the study population while 29.6% were females. Fifty-five percent of patients were hypertensive and 27.3% were diabetic. Only 8.8% patients of the study population were active smokers. Forty-seven percent of patients were overweight and 6.9% were obese. All patients were maintained on triple immunosuppression with calcineurin inhibitor, anti-metabolite and prednisolone.

The overall prevalence of dyslipidemia was 52.7%. Seventy-three patients (28%) had elevated triglyceride level. Sixty-one patients (23.4%) had elevated total cholesterol levels. Eighty-nine patients (42.4%) had elevated LDL-C level. Fifty-two patients (24.8%) had low HDL-C levels.

Age and gender were not significantly different between patients with dyslipidemia and other patients. Patients with dyslipidemia had significantly longer post transplant duration compared to other patients (60 versus 48 months, $p=0.02$). Diabetes mellitus was significantly more common among patients with dyslipidemia compared to other patients (32.8% versus 21.1%, $p=0.04$). Hypertension was more common among patients with dyslipidemia compared to other patients but the difference was not statistically significant (60.6% versus 49.6%, $p=0.1$). The prevalence of obesity, smoking and family history of dyslipidemia was not significantly different between the two groups. Cyclosporine use was more common among patients with dyslipidemia compared to other patients but the difference was not statistically significant (18.3% versus 10.6%, $p=0.1$).

Conclusion(s): The prevalence of dyslipidemia in this cohort of kidney transplant recipients was 52.7%. Elevated LDL-C was the most frequently encountered lipid abnormality.

PP-162 OUTCOME OF LIVING-DONOR KIDNEY TRANSPLANT WORK-UP AT AHMED GASIM HOSPITAL

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Purpose: Living-donor kidney transplantation is the best available treatment modality for end-stage renal disease patients. Pairs undergoing evaluation for possible living-donor kidney transplantation do not always proceed to transplant. Our aim was to evaluate the outcome of living-donor kidney transplant work-up at Ahmed Gasim Center, Khartoum, Sudan.

Material and method: This is a retrospective analysis of electronic data obtained from Ahmed Gasim Hospital kidney transplant work-up data-base. We included all patients who presented for kidney transplant work-up between January 2017 and June 2018.

Findings: The study included 577 kidney failure patients with minimum follow-up of three months duration. Males constituted 69.2% and females constituted 30.8% of the study population with a mean age of 42 ± 13 years (range 14-73 years). Seventeen patients (3.4%) presented for pre-emptive transplant while 96.4% were maintained on regular hemodialysis and only one patient (0.2%) was maintained on continuous ambulatory peritoneal dialysis. Regarding prospective kidney donors, males constituted 52.5% and females constituted 47.5% with a mean age of 32 ± 10 years (range 18-66 years). Siblings constituted 51.1% of prospective donors, off-spring 26.3%, parents 5.7%, spouses 5.4% and other relatives 11.4%. Among siblings, brothers were 59.7% and sisters were 40.3%. Among parents, mothers were 84.8% and fathers were 15.2%. Among off-spring, sons were 52.6% and daughters were 47.4%. Among spouses, wives were 83.9% and husbands were 16.1%. Among other relatives, males were 56.1% and females were 43.9%.

Out of 577 patients who started work-up, 41.1% underwent kidney transplantation, 0.9% are currently scheduled for transplant, 9.7% are still under assessment, 12.1% were lost to follow-up, 1.7% died before completing work-up and 34.5% were not accepted. Reasons for transplant cancellation were patient rejection (32.1%), donor exclusion (31.4%), unfavorable HLA mismatch (23.6%), donor-specific anti-HLA antibodies (12.1%) and patient withdrawal (0.7%). Reasons for patient rejection were severe cardiovascular disease (42.9%), active tuberculosis (26.2%), other systemic disease (21.4%), malignancy (4.8%), mycetoma (2.4%) and obesity (2.4%). Reasons for donor exclusion were microscopic hematuria (24.1%), hypertension (24.1%), HBV infection (10.3%), donor withdrawal (10.3%), obesity (6.9%), urological abnormality (6.9%), proteinuria (3.4%), tubulointerstitial disorder (3.4%), neurological malformation (3.4%), tuberculosis (3.4%) and pregnancy (3.4%).

Conclusion(s): Among patients presenting for living-donor kidney transplantation, only 42% were accepted for transplant. Common reasons for patient rejection were cardiovascular disease and tuberculosis. Common reasons for donor rejection were microscopic hematuria and hypertension.

PP-163 CADAVERIC KIDNEY TRANSPLANTATION IN DIFFICULT CONDITIONS :IT IS POSSIBLE

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Purpose: the number of renal failure is increasing all over the world, including Algeria, entire health budget will not even be enough to cover the cost of dialysis

Material and method: in March 2010 and in April 2012 we had two young people injured in the circulation in brain death following a serious head trauma Despite the logistical, social, emotional difficulties: we could do the removal of the kidneys alone 04 patients with end-stage renal failure were able to benefit from renal transplant including 03 who had been on dialysis for 05 years (02 men and 01 woman) 45 years of average age and a 25 year old man in preemptive transplant

Findings: 04 patients with end-stage renal failure were able to benefit from renal transplant including 03 who had been on dialysis for 05 years (02 men and 01 woman) 45 years of average age and a 25 year old man in preemptive graft The 04 patients are all alive with normal renal function (creatinine between 09-12 mg / L) The woman developed diabetes and two skin lesions: 01 baso and 01 squamous cell (creatinine:25 mg/l)

Conclusion(s): the challenge is to succeed grafting from cadaveric donations despite the difficult conditions

PP-164 RISK FACTORS AND LONG-TERM OUTCOMES OF DELAYED GRAFT FUNCTION IN DECEASED DONOR RENAL TRANSPLANTATION

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Purpose: Delayed graft function (DGF), defined as the need for dialysis within the first week post transplantation, occurs in approximately 25% of deceased donor (DD) renal transplantation cases. The purpose of this study was to analyze the risk factors for delayed graft function (DGF) and determine its impact on the outcomes of DD kidney transplantation (KT).

Material and method: It is an analytical retrospective study including all DD KT between 2012 and 2017. The search of DGF factors was made by comparing 2 groups. Group I: DGF; group II: non-DGF .

Findings: 29 patients were included. The mean age DD was 22 ± 6.89 years, and mean serum creatinine at retrieval was 1.1 ± 6.32 mg/dl with mean urine output 220 ± 136.02 ml/h in the last hour. The recipients mean age was 42 ± 9.77 years, with mean duration in hemodialysis 77.6 ± 50.2 months. 14 recipients experienced DGF. The donor serum creatinine was higher in the DGF group (14.7 versus 8.7 mg/l, $p=0.008$). There was no difference in recipients age, sex, prevalence of anti HLA anti bodies between the two groups. The number of human leukocyte antigen mismatches was higher in the DGF group ($p=0.01$). The cold ischemic and warm ischemic times were higher but not significantly in the group with DGF. Serum creatinine at the first month was higher in the group I ($p=0.01$), and also at one year. Urologic complications were comparable between the two groups. After a mean follow up of 28 months, we noted 2 deaths in every group with one graft loss in the DGF group, and the mean serum creatinine was comparable ($p=0.9$).

Conclusion(s): In our patients, there was no significant difference in graft survival between the DGF and non-DGF groups.

PP-165 IMPACT OF HISTO PATHOLOGICAL INJURIES IN PRE TRANSPLANTATION BIOPSY ON DELAYED GRAFT FUNCTION

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Purpose: Delayed graft function (DGF) is defined as dialysis being required during the first week after transplant. It is a manifestation of a kidney failure diagnosed with oliguria or anuria. Controversial results were noted in multiple retrospective studies showing a relation between histopathological injuries of the kidney transplant and the DGF.

Material and method: It's a retrospective analytic study lead during 4 years (2012 to 2016) concerning pre transplant kidney biopsy (peroperative biopsy conducted by the surgeon). The different injuries were classified and the correlation with DGF was assessed. We used the SPSS software with Chi-square test, Fisher test and Kruskal Wallis test to assess the relationships

Findings: The mean age of patients was 59 yo with a male predominance. Mean time of dialysis before transplantation was of 40 months without considering 6 patients with preemptive kidney transplantation. Mean warm ischemia time was 31 min and the cold one 17 hours. 184 patients (60,7%) had more than 3 mismatches in HLA system. 19 patients experienced DGF. We didn't find a statistically significant correlation between the histopathological injuries and the DGF but we noticed that the tubular acute necrosis at day 0 in the graft was associated with an increase in the DGF with an OR of 1,04-30,1.

Conclusion(s): DGF is a complication that negatively impacts long term outcomes of the graft function. Identifying and understanding the mechanisms of DGF is an essential step to reduce its incidence and to expand graft's survival. Extended criteria donors' kidneys are more exposed to histopathological injuries. Many studies in the future can be conducted to define more precisely the relationships with the DGF

PP-166 KIDNEY TRANSPLANTATION ULTRASOUND

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Purpose: Ultrasound is considered the first line imaging modality to evaluate possible complication and graft dysfunction following kidney transplantation. Gray scale ultrasound, Doppler ultrasound and contrast enhanced ultrasound can be used for this purpose. General understanding of surgical technique for detecting early and late complication is essential in patient management to increase graft survival rate.

Material and method: Complications following renal transplantation can be categorized as vascular, parenchymal, urological and perirenal space complications. The most commonly encountered complication is perirenal fluid collection. Determining the site, and time of onset is required to possibly differentiate fluid collection.

Findings: Early post-operative Doppler ultrasound is performed to evaluate graft function by determining flow, and resistive indices (RI) in intrarenal arterial vessels. Increased RI is associated with graft dysfunction and is directly associated with serum creatinine level. However, it is not specific. Contrast enhanced ultrasound is used for evaluation of graft perfusion and vascular blood flow. In 2014, a portable ultrasound machine was procured at the organ transplantation center, enabling immediate post-operative period examinations and late follow up, facilitating our workflow and data collection. All previous data are written in paper patient record. In our institution, we perform ultrasound examination once every other day during the first week, and when required thereafter.

Conclusion(s): In conclusion, ultrasound is the most commonly used method during perioperative, early and late post-operative period. Even though urological and perirenal space complications can be easily detected, vascular moreover parenchymal complications cannot be differentiated by ultrasound alone.

PP-167 SURGICAL COMPLICATIONS IN KIDNEY TRANSPLANTATION: IS THERE IMPACT ON THE RESUME FUNCTION AND GRAFT SURVIVAL?

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Purpose: Apart from his unquestionable contribution in significant improvement in survival in end stage renal diseases patients, transplantation may be subject to early or late surgical complications. The objective of our work is to describe its complications and their impact on the recovery of graft function and survival in the short, medium and long term

Material and method: It's descriptive and analytical retrospective study, of all patients who received renal transplant from living and deceased donors over 10 years from January 2007 to January 2017. The data concern the demographics of the donor, the recipient; anatomy of the transplant, the ischemia and vascular clamping time. The surgical complications and their management and we analyzed their impact on evolution of graft function.

Findings: Among 126 renal transplants, there were a total of 29 patients who present a surgical complication this mean an overall incidence of 23.01%. The average age was 35.93 ± 11.48 years. The donor is a living in 82.75% of cases and 17.25% from a donor in a state of brain death. The average time between dialysis and transplantation is 38.93 ± 42.94 months. The left kidney is transplanted in 27.5% of cases. The averages cold ischemia time is 258.55 ± 317.79 minutes and warm ischemia time is 84.41 ± 30.85 minutes. The mean nadir is 17.21 ± 13.14 mg / l of creatinine. Urological complications dominated by seromas (37.93%) and urinoma (17.24%), while 27.58% had vascular complications (including 62.5% 37.5% vascular thrombosis and vascular stenosis). The parietal complications were present in 20,68% of cases. The statistical study showed that complications affecting the delayed recovery of graft function are urological with a mean delay between the nadir and transplanting $95,57 \pm 45,55$ days while they have no significant effect on the graft survival ($p=0,7$), the vascular complications increase the rate of loss graft with 50% cases of back on dialysis ($p=0,003$)

Conclusion(s): Vascular complications are surgical complications to fear in a renal transplantation and requires early detection, our results are consistent with literature data

PP-168 SLEEP QUALITY IN PATIENTS WITH RENAL TRANSPLANTATION

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Introduction: Sleep disorders remain a common problem even after kidney transplantation. Most studies focus on sleep quality in patients with renal failure or dialysis. The purpose of our study is to evaluate the quality of sleep in kidney transplant patients and its relation to quality of life.

Materials and methods: This is a cross-sectional study of 33 patients who received a kidney transplant in 2014-2015. Sleep quality was measured by the Pittsburgh Sleep Quality Index (PSQI). Sleep disorders were defined by a score greater than 7. The quality of life was measured using the SF-36 questionnaire.

Results: The average age of patients is 39.7 years. The sex ratio is 1. The average duration of dialysis was 52.36 months. The average glomerular filtration rate is 76.21 mL / min. The average overall score is 5.36. Sleep disorders are found in 31.5% of cases with a PSQI greater than 7. While 68.5% are good sleepers (PSQI = 7). Based on the PSQI, the six items found are: sleep latency, sleep disturbance, sleep quality, sleep efficiency, sleep duration and the use of hypnotics. The SF-36 sleepers whose PSQI greater than 7 is lower than the good sleepers.

Discussion: The prevalence of sleep disorders is important in hemodialysis, but still remains relatively unknown after kidney transplantation. The literature data is controversial regarding the frequency and factors involved in the occurrence of sleep disorders in this category of patients.

Conclusion: Sleep is a good indicator of health. Sleep disorders in patients who have had a kidney transplant must be taken into consideration in order to improve their quality of life.

PP-169 SURGICAL DIFFICULTIES IN KIDNEY REMOVAL IN LIVING DONOR

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Purpose: the unexpected is not uncommon in surgery but it comes to kidney removal surgery on living donor for related transplant:the strategy changes radically

Material and method: study is carried out on 2 cases 1st case donor woman of 60 years old iso group iso rhesus recipient her son 26 years old, indeterminate nephropathy, HLA semi identical in dialysis program 2nd case: donor : female 56 years old angioscanner : there is no anatomical variation ,the vascularization is modal récipient : her son 30 years old ,HLA semi identique with donor in dialysis both donors were operated by lombotomy

Findings: in both cases there was no renal sampling 1st case: the kidney is full of microcysts passed unnoticed for radiological examinations we reimplanted the ureter sectioned beforehand setting up a probe jj 2nd case we discover after left lombotomy 3 fine renal arteries requiring us to close and explore the right side Right lombotomy makes us discover the same thing 3 fine arteries impossible to anastomose. evolution: favorable: recovery of diuresis good renal function the recipients remained on dialysis

Conclusion(s): Operative surprises exist and modify the course of the intervention even with good radiological examinations. However, it is necessary to increase vigilance and carefully search anatomical variations.

PP-170 SURGICAL COMPLICATIONS OF KIDNEY TRANSPLANTATION IN IBN SINA SPECIALIZED

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Abstract: Surgical Complications of kidney Transplantation in Ibn Sina Specialized Hospital – Khartoum- Sudan (April 2015 - April 2017) Abstract Background: Renal transplantation has been accepted worldwide as the best renal replacement therapy for patients with end stage renal disease (ESRD).

Objectives: To study the surgical complications and their impact on patient and graft survival; and complications will be compared to literature. Methodology: Retro-prospective study performed on 81 patients with end stage renal failure who underwent renal transplantation at Ibn Sina Specialized Hospital, from April 2015 to April 2017. Data accumulated included demographic data, preoperative preparations, surgical technique, postoperative follow up, and surgical complications of renal transplantation.

Results: Seventy three patients (96.3%) were on Hemodialysis (HD) and 8 were pre-emptive (3.7%). Sixty three patients (77.8%) were males, with a male to female ratio of 4:1. The median age of transplant recipients was 31.6 years (range 5- 63 years) More than half of the patients (54%) were in the age group 18 –40. . Post operative surgical complications occurred in 5 (6.2%) patients. Of these, wound infection occurred in three patient (3.8%), deep vein thrombosis/ pulmonary embolism occurred in one patient and ureteric leak occurred in another patient. No vascular complications were documented.

Conclusion: Renal transplantation remains the best modality for treatment of patients with ESRD compared to dialysis modalities. Only few surgical complications were encountered over two years and they were all minor surgical complications.

PP-171 CYTOMEGALOVIRUS INFECTIONS AFTER TRANSPLANTATION

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Introduction : After renal transplantation, immunodeficiency will promote the development of opportunistic viral infections. In the foreground are infections with viruses of the family Herpesviridae, in particular cytomegalovirus (CMV). It usually occurs between the 2nd and the 4th month, Several risk factors have been reported in the literature. The relationship with graft loss by rejection has been established, the aims of this work are to assess the incidence and risk factors and to study the impact of this complication on graft survival and renal transplantation.

Patients and methods : This is a retrospective study conducted in renal transplant patients followed in our facility for a period of 8 years from 2009 to 2017. For each patient we specified the initial nephropathy, the dialysis modalities, the circumstances of transplantation (type of donor, procedure and surgical modalities, immunosuppression), donor / recipient status, ischemic time, HLA typing. Infection is defined by the detection of viral replication in the absence of clinical signs, and CMV disease as a CMV infection with clinical and / or biological signs

Findings : During this period 17 patients were collected, a prevalence of 23.94%, 8 transplanted developed a CMV infection while 9 others had a CMV disease, mean age of our patients was 34.64 ± 9.02 years, with a male predominance (52%). The kidneys collected were from living relatives for 12 patients and from cadavers for others. The induction treatment is based on antilymphocyte serum (ATG) in 88%, on basiliximab in 12%. The average time to onset of infection is 4.92 ± 12 months. The serologic profiles of donor recipient couples were: R + / D + in all cases. The clinical picture of the disease included fever in 6 patients, pneumonia (1), abdominal pain (2), diarrhea (1). Biologically, thrombocytopenia (n = 3), hepatic cytolysis (n = 2), leukopenia (n = 1) and renal failure (n = 6) were observed. Amylasemia was not measured. The serologic diagnosis was based on viral DNA PCR, the curative treatment was based on ganciclovir for 3 weeks, no patient had prophylactic antiviral treatment.

Conclusion : CMV infection is the first infectious complication and the leading cause of death in kidney transplantation. Prevention relies mainly on prophylactic treatment.

PP-172 RUPTURE OF AN ABDOMINAL AORTIC ANEURYSM AT THE LEVEL OF HORSESHOE KIDNEY: A RARE CASE

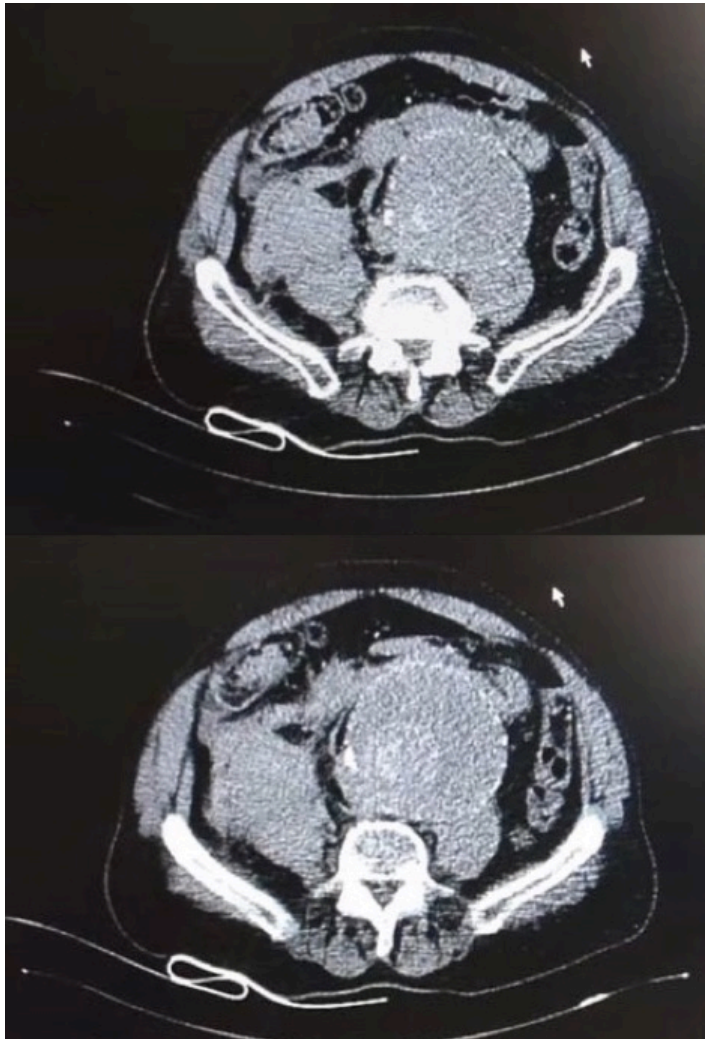
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Introduction: Renal anomalies are the most common congenital organ malformations. Horseshoe kidney is the most common one. It's more frequent in men and 1 / 400-600 ratios seen. In the horseshoe kidney pathology, the kidneys are often fused from the lower poles and often unite in the midline, but may also be laterally. They are often asymptomatic. In symptomatic patients, abdominal pain is the most common symptom. Unfortunately VUR, stone disease development are more common than the normal population. In all surgical interventions including cardiovascular surgeries, assessment of existing anomalies with good radiological evaluation before surgery is life-saving.

Case report: A 77-year-old male patient presented with complaints of acute abdominal pain and rapidly progressive weakness. Patients general condition was rapidly worsening. Emergent USG planned and it showed: Bilateral retroperitoneal, septal, heterogeneous areas were seen in favour of organized hematoma. Then urgent CT was done and it showed horseshoe kidney renal anomaly, behind it as in the isthmus level ruptured aortic aneurysm was found. Systematically, cardiovascular surgery clinic and transplantation clinics coordinated emergent explorative surgery.



Operation: Median laparotomy performed. The retroperitoneal area was rapidly reached and aortic proximally clamped. Horseshoe kidney liberated from environmental tissues. Both renal arteries, veins and ureters are

released and separated. Then the ruptured aneurysm was seen to be placed in the lower level of the renal arteries. In preoperative management, isthmus excision was planned but intraoperatively it was excluded because kidneys are completely eliminated and separated from the aneurysm. The horseshoe kidney was totally mobilized and elevated caudally and then ruptured aortic aneurysm was seen. An aortic bifemoral bypass was performed with a dacron graft. Lumbar arteries at aneurysm level were sutured. Following bleeding control, drains were placed and processing was terminated.

Conclusion:In this case, it is aimed to prove that the surgical approach should be done as a team and patients should be reevaluated as preoperatively, even if a very urgent operation is required. As we all know the need for postoperative dialysis increases the mortality significantly. In particular, it is important to determine whether the renal artery-aorta entry sites are within the aneurysm area. Accordingly, the approach plan, aid from the transplantation team and autotransplantation preparation are very important. If the patients are not well assessed and if surgical coordination lacks, vital organs may be injured and delays may occur in operations where the latter is important.

PP-173 INTEREST OF RENAL BIOPSY IN THE DIAGNOSIS OF BK NEPHROPATHY IN KIDNEY TRANSPLANTATION

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Introduction: BK virus infection is expressed in the immunocompromised population, especially in the renal transplant. It is a severe viral infection responsible for tubulointerstitial nephropathy that frequently progresses to graft loss.

Case report: We report the case of a 37-year-old man, transplanted in October 2015 for indeterminate glomerular nephropathy. The immunosuppression protocol included induction with Thymoglobulin®, Prograf®, MMF® and corticosteroid therapy. The outcome of the transplantation was complicated by acute biliary pancreatitis, asymptomatic *Klebsiella pneumoniae* septicemia and infectious diarrhea by *Giardia Intestinalis*. 70 days after transplantation the patient developed renal insufficiency with serum creatinine 186µmol / l, a graft biopsy was performed. Light microscopy reveals two inflammatory foci in the tubulointerstitial sector in which the tubes contain of intranuclear inclusions in "ground- glass like". PCR of the BK virus was positive. In spite of the decrease of the immunosuppression, there was no improvement in kidney function.

Conclusion: BK virus infection appears as an opportunistic infection with renal tropism. This case illustrates the interest of renal biopsy in the diagnosis of BK virus infection.

PP-174 IS KDPI SCORE PREDICTOR OF FUTURE GRAFT FUNCTION?

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Purpose: Kidney donor profile index (KDPI) is a method developed to assess donor kidney quality for cadaveric transplants. KDPI is a numerical measurement that combines the demographic and clinical parameters of the donor and it is based on the kidney donor risk index (KDRI), that represents the relative risk of post-transplant graft failure from a particular deceased donor compared to the average donor. We investigated the relationship between KDRI and KDPI scores of cadaveric transplants in the last 5 years in our clinic and current graft conditions.

Material and method: Forty people (12 females, 28 males; mean age, 46.35 + 8.94 years), who underwent cadaveric transplantation between January 2013 and March 2018, were participated to this study. At the same time, the KDPI and KDRI scores of the donor kidneys were calculated and then compared with that of the recipients datas.

Findings: In our center, while 38 cadaveric kidneys (18 female, 20 male, mean age = 45.32 + 14.92) were used for transplantation, of two cadaver both right and left kidneys were used for transplantation. While the mean KDPI of the donors was 53.45 + 28 (3-99), the mean KDRI was 1.09 + 0.33 (0.61-2.21). When the creatinine values of renal transplant patients compare with KDPI and KDRI values, it was observed that as KDRI and KDPI values increased, creatinine value increased ($p < 0.01$). When the follow-ups of creatinine values of patients were examined, it was seen that this relationship did not change statistically with time ($p = 0.29$). When KDRI and KDPI values were compared with the day when post-transplantation creatinine values started to fall off spontaneously, it was observed that the low-scoring graft was earlier functioning ($p < 0.01$).

Conclusion(s): High KDRI and KDPI values are associated with low expected graft survival. Similar to the literature also in our study; higher KDRI and KDPI values were associated with higher creatinine levels. We also observed that grafts with lower values after transplantation were earlier functional. However, in addition to these scores before transplantation, the situations such as anatomical abnormality, HLA compliance, age / kidney size inconsistency, risk of recurrent glomerulonephritis and donor-specific antibody presence also need to consider.

PP-175 LONG-TERM RESULTS OF PREEMPTIVE KIDNEY TRANSPLANTATION

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Purpose: In some studies, it was reported that preemptive kidney transplantation (PKT) had improved graft and patient survival. In this study, we aimed to investigate the long-term results of PKT.

Material and method: In this retrospective study, we examined the records of patients who underwent kidney transplantation between 2005-2017 with a minimum 1 year of follow-up. Glomerular filtration rate (GFR), graft failure and mortality rates receiving preemptive versus non-preemptive kidney transplants were compared.

Findings: 230 pediatric renal tx recipients were included in the study. The majority of recipients were male (60.9%) and received a living donor (70.8%). The most common causes of ESRD were ÇAKUT (42.2%). 45.7% of the patients underwent PKT. Mean age at transplantation and mean follow-up period were similar between PKT and non-PKT recipients (10.79 ± 5.03 vs 11.45 ± 4.65 years, $p=0.23$ and 4.71 ± 2.61 vs 5.88 ± 9.38 years, respectively, $p=0.64$). Within a median 7.23 years of follow-up period, a total of 24 recipients (10.4%) experienced graft failure and 7 patients (3.0%) died. Risk of graft failure and mortality were similar between PKT and non-PKT recipients (7.54% vs 12.9%, HR: 1.30; 95% CI: 0.54-3.12 and 2.83% vs 3.22%, HR: 1.02; 95%CI: 0.22-4.60). Mean GFR at the time of study was similar between PKT and non-PKT recipients (76.91 ± 24.47 vs 87.66 ± 62.7 ml/min/1.73 m², respectively, $p=0.11$).

Conclusion(s): We found that preemptive kidney transplantation was not superior to tx after renal replacement therapy in terms of graft and patient survival.

PP-176 ABO BLOOD GROUPS AND ALLOGRAFT SURVIVAL IN RENAL TRANSPLANT RECIPIENTS

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Purpose: The effects of ABO blood groups on renal allograft survival (AS) are unclear. We evaluate the comparative allograft survival in different ABO blood groups kidney transplant recipients.

Material And Method: Of 239 renal transplant recipients who underwent transplantation in a single center, 84 patients (35.14%) were blood group O, 104(43.51%) were blood group A. Because the blood group AB patients' number is low, the blood group B and AB patients were grouped at one group blood group B (51; 21.3%). Variables investigated were the age and sex of recipients and donors; the number of human leucocyte antigen(HLA) mismatches; allograft survival; the degree of urinary protein excretion for 24h; estimated glomerular filtration rate(e-GFR); the proportion of living/cadaver donors; serum creatinine, cholesterol, triglyceride levels.

Findings: The AS of blood group O recipients was significantly longer than that of blood group B recipients ($p = 0.001$). Correlation analyses revealed that recipient's ages ($p=0.002$), donor's ages ($p=0.013$), creatinine ($p=0.022$), GFR ($p=0.005$), HLA mismatches ($p=0.001$), blood group O ($p<0.0001$), blood group B ($p<0.0001$), Drug CyA ($p<0.0001$) and Drug Rapa ($p=0.032$), were predictors of AS. Multivariate regression analyses indicated that group B ($\beta = -0.618$, $p < 0.0001$) and CyA-based immunosuppression ($\beta = -0.924$, $p < 0.0001$) were significant strong negative predictors, of AS.

Conclusions: The AS of blood group O recipients was significantly longer than that of blood group B recipients. Moreover, e-GFR, recipient age, donor age, gender and the number of HLA mismatch, were correlated with long-term AS, in contrast shorter AS was related with blood group B and CyA treatment.

PP-177 USAGE OF METHYLENE BLUE VIA THE THREE-WAY URINARY CATHETER TO FIND BLADDER FOR URETERONEOCYSTOSTOMY IN RENAL TRANSPLANTATION

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Purpose: The aim of this study was to evaluate the role of the usage of methylene blue via three-way ureteral catheter to perform the anastomose between the ureter and urinary bladder in kidney transplant recipients.

Material and method: We performed a retrospective study on a series of 36 consecutive renal transplantations performed in our transplant center between the dates January 1, 2015, and July 31, 2018. Three-way ureteral stents were used in last 30 cases and were removed 1 weeks postoperatively. Recipient age, sex, the intraoperative urinary bladder volume with methylene blue containing solution, and complications were analyzed.

Findings: We performed three-way urinary catheter to 30 patients. The mean age was of 48.8 (range 25-64) years. 6 of 30 patients were female. All of the cases were catheterized with three-way urinary catheter. Methylene blue containing serum physiologic solution was given into urinary bladder. Volume of urinary bladder was ranging from 100cc to 300cc. No intraoperative and postoperative complications were seen.

Conclusion(s): In our study, the use of ureteral stents significantly provides a safe convenience to finding the urinary bladder. We suggest the use methylene blue usage via the three-way urinary catheter to find bladder for ureteroneocystostomy in renal transplantation.

PP-178 URINARY TRACT INFECTIONS POST KIDNEY TRANSPLANTATION IN AHMED GASIM HOSPITAL

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Purpose: Epidemiological data about urinary tract infections (UTIs) among Sudanese kidney transplant recipients are scarce. Our aim was to determine the prevalence and clinical features of UTIs during the first six months post kidney transplantation at Ahmed Gasim Cardiac Surgery and Renal Transplantation Hospital (AGH) in Khartoum, Sudan.

Material and method: This is a retrospective study of adult patients who underwent living related kidney transplantation at AGH during 2016. UTI was defined by the isolation of $\geq 10^5$ CFU/mL of a bacterial strain from one midstream urine specimen.

Findings: The study included 150 kidney transplant recipients with a mean age of 39 ± 13 years. Five patients were diabetic (3.3%) and twelve patients had obstructive uropathy (8%). All patients received induction with methylprednisolone, five patients received anti-thymocyte globulin (ATG) and five patients received basiliximab. All patients were maintained on tacrolimus and prednisolone in addition to either azathioprine (73.3%) or mycophenolate mofetil (26.7%). All patients had immediate graft function with mean serum creatinine level of 1.1 ± 0.3 mg/dL. Foley catheter was removed on the fifth post-operative day and the double J stent was removed by cystoscopy six weeks after transplantation. All patients received cotrimoxazole for six months post transplant.

Forty patients (26.7%) had UTI during the first six months post transplantation including nine patients (6%) who suffered from recurrent UTIs. The prevalence of UTIs was higher in females compared to males (52.6% versus 18.8%, $p = 0.00$) and in diabetic compared to non-diabetic patients (66.7% versus 25.5%, $p = 0.048$). The median time to diagnosis was 53 days post transplantation (range 13-180 days). Presenting features included pyuria (94.1%), dysuria (35.3%), abdominal pain (15.7%), transient rise in serum creatinine (15.7%), fever (9.8%) and hypotension (5.9%). The most commonly isolated organisms were *E. coli* (27.5%), *Enterobacter spp.* (13.7%), *Candida* (11.8%), *Staphylococcus spp.* (11.8%), *Streptococci* (7.8%), *Klebsiella* (5.9%) and *Pseudomonas* (5.9%). Only 48.8% of UTIs responded to initial antibiotic treatment. Resistance rates were high to cotrimoxazole (91.7%), amoxicillin (90.6%), cefixime (87.5%), ceftriaxone (81.8%), cefuroxime (81.0%), norfloxacin (65.5%), nitrofurantoin (59.1%), ciprofloxacin (48.3%) and cefepime (47.4%). Hospitalization was required for 17.6% of affected patients but there was no associated graft loss or patient death.

Conclusion(s): UTIs are common during the first six months post kidney transplantation in AGH, but the rate is not different from what is reported in the literature. Resistance rates to commonly used antibiotics are high stressing the need for rational antibiotic use.

Figure-1: Sensitivity pattern of bacterial isolates obtained from urine cultures of adult kidney transplant recipients in Ahmed Gasim Center, Khartoum, Sudan (n = 51)

PP-179 LYMPHOPROLIFERATIVE DISEASES POST-RENAL TRANSPLANTATION

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Introduction: Lymphoproliferative diseases represent one of the potentially lethal complications of organ transplantation, forming a group of heterogeneous lymphoid proliferations by their clinical presentation and histological aspects, ranging from reactive plasma hyperplasia to the appearance of malignant lymphomas. The appearance of these pathologies is around 1% in renal transplant patients .

The aim of our work is to illustrate the clinical, para-clinical, therapeutic and evolutionary presentations.

Material and method: We report 3 cases of kidney transplant patients who presented after renal transplantation lymphoproliferative diseases.

Results : This is about three renal transplant patients, one woman and two men, aged 49, 21 and 65, respectively. The transplanted kidney to the female patient came from a Brain death donor and in the other 2 patients from relative living donors .The diagnosis of the lymphoproliferative disease in the female patient was diagnosed following a hematological attack, motivating the realization of a myelogram that confirmed a light chains myeloma. For the 2 other male patients, they presented a tumor syndrome, a biopsy performed in these 2 patients revealed large cells of B lymphoma associated with a positive EBV PCR .The average time between transplantation and diagnosis was between 1.5 years and 15 years .For the female patient, she received a chemotherapy protocol based on dexamethasone, cyclophosphamide and thalidomide. The evolution was marked by the return on hemodialysis and then the death of the patient following infectious complications .For the 21-year-old patient, he benefited from the R-CHOP chemotherapy protocol with a clinico-radiological remission, and an improvement in the renal function .For the 65-year-old patient, a rituximab-based treatment was initiated with reduced immunosuppression.

The evolution was marked by the death of the patient .**Discussion :** The lymphoproliferative diseases post renal transplantation differ from those of the immunocompetent subject by their viro-induced trait (EBV), their frequent extraganglionic localization, the possibility of brain damage and their potential response to a decrease in immunosuppressive therapy.

Conclusion(s): The occurrence of a lymphoproliferative diseases constitutes an evolutionary turning point which threatens the vital prognosis of patients and the functions of the graft, It increases the mortality rates and the returns to dialysis. Patient survival has been improved in recent years through prophylactic measures (avoid EBV infection for seronegative patients) and therapeutic ones (decrease of immunosuppressors)

PP-180 MUCORMYCOSIS PRESENTED WITH FACIAL PAIN IN A RENAL TRANSPLANT PATIENT

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Purpose: Invasive fungal infections can be seen in patients with solid organ transplantation. Mucormycosis is rhinocerebral invasive fungal infections. Here, we reported a case of sinus mucormycosis in a patient with a facial pain complaint at the 8th month of renal transplantation.

Material and method: A 51-year-old female patient who underwent renal transplantation due to autosomal dominant polycystic kidney disease and diabetic nephropathy was admitted to our hospital with facial pain with edema of left half of face on the 8th month of transplantation.

Findings: On the physical examination there was only tenderness and slight edema on the left half of the face. On the paranasal computed tomography evaluation extensive soft tissue densities involving septations, filling the left maxillary sinus, extending to the nasal cavity and obliterating the left osteomeatal unit were observed. Considering acute sinusitis, ampicillin sulbactam and levofloxacin were started. However, because facial pain could not relieve even antibiotics and several potent analgesic drugs on the second day Mucormycosis infection with bone involvement was suspected and left maxillary sinus excision was performed. Microscopic examination of the debridement specimen under H&E revealed necrotic bone interspersed with fungal hyphae and culture isolated *Rhizopus oryzae*. Liposomal amphotericin B was started. The patient was on tacrolimus, prednisolone and mycophenolate mofetil. Tacrolimus was switched to cyclosporine to regulate serum glucose levels. Mycophenolate mofetil was stopped. The left maxillary sinus was washed with liposomal amphotericin B daily and curetted with intervals. One month later the patient had sudden loss of vision in the left eye. On orbital computerized tomography soft tissue densities extending to the left compartment of the sphenoid-frontal sinus, filling the left maxillary sinus, left nasal and left ethmoid cells, maxillary region causing destruction of the bones in the anterior-posterior wall of the sphenoid sinus and extending to the periorbital area and maxillary region were observed. Left eye exenteration was performed. The patient was initiated dialysis because of severe renal function loss. The patient was discharged on the 96th day of liposomal amphotericin B.

Conclusion(s): Mucormycosis is an aggressive, life-threatening, angio-invasive fungal infection that causes tissue necrosis in infected organs. The current report accentuates the importance of having a high index of suspicion when renal transplant patients with diabetes presenting with facial pain and prompt initiation of medical therapy along with surgical debridement for control of rhinocerebral mucormycosis.

PP-181 AN EARLY PERIOD COMPLICATION IN A RENAL TRANSPLANT RECIPIENT: MILIER TUBERCULOSIS

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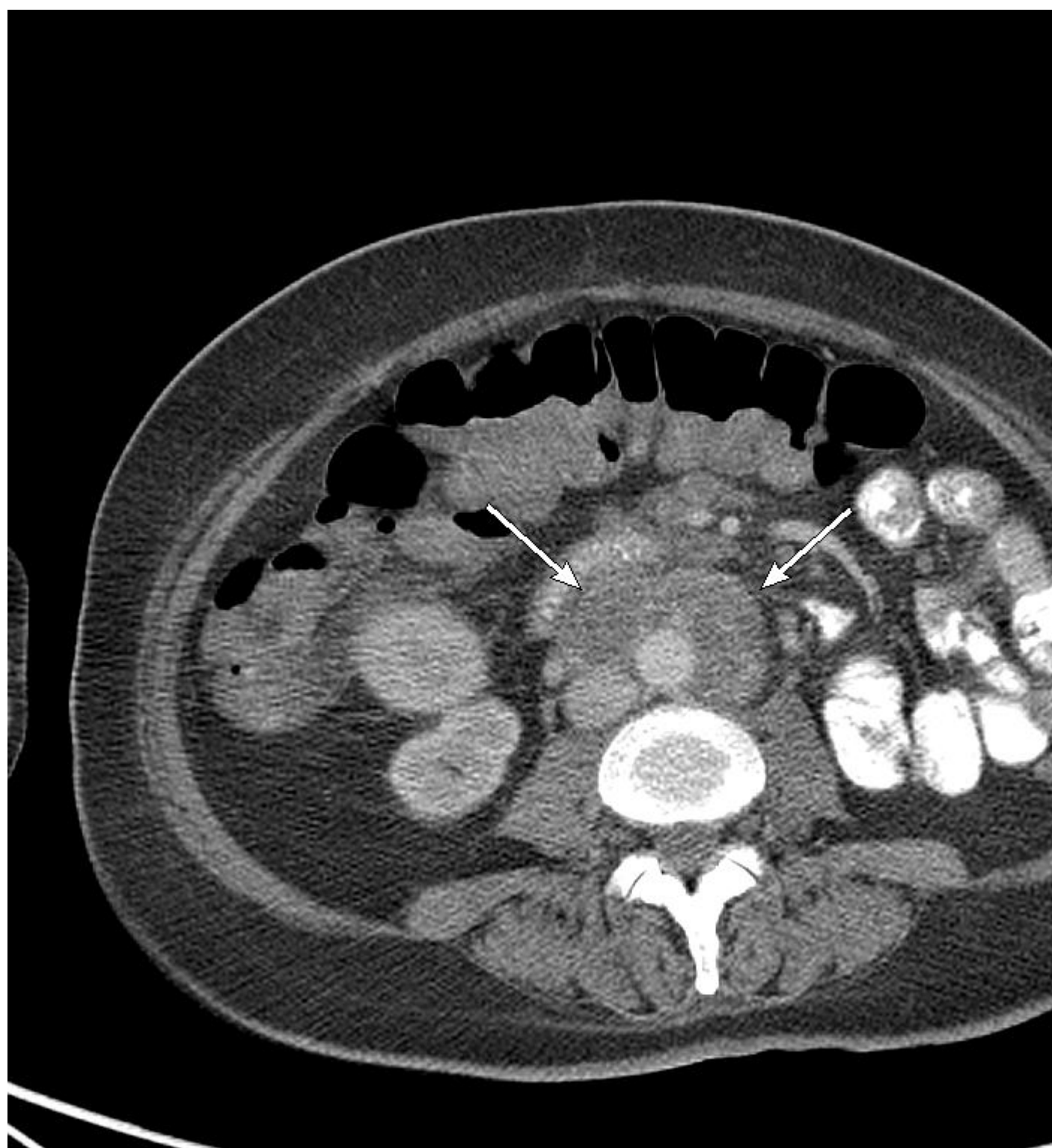
³ *Istanbul Bilim University Medical Faculty Department Of General Surgery, Unit Of Renal Transplantation*

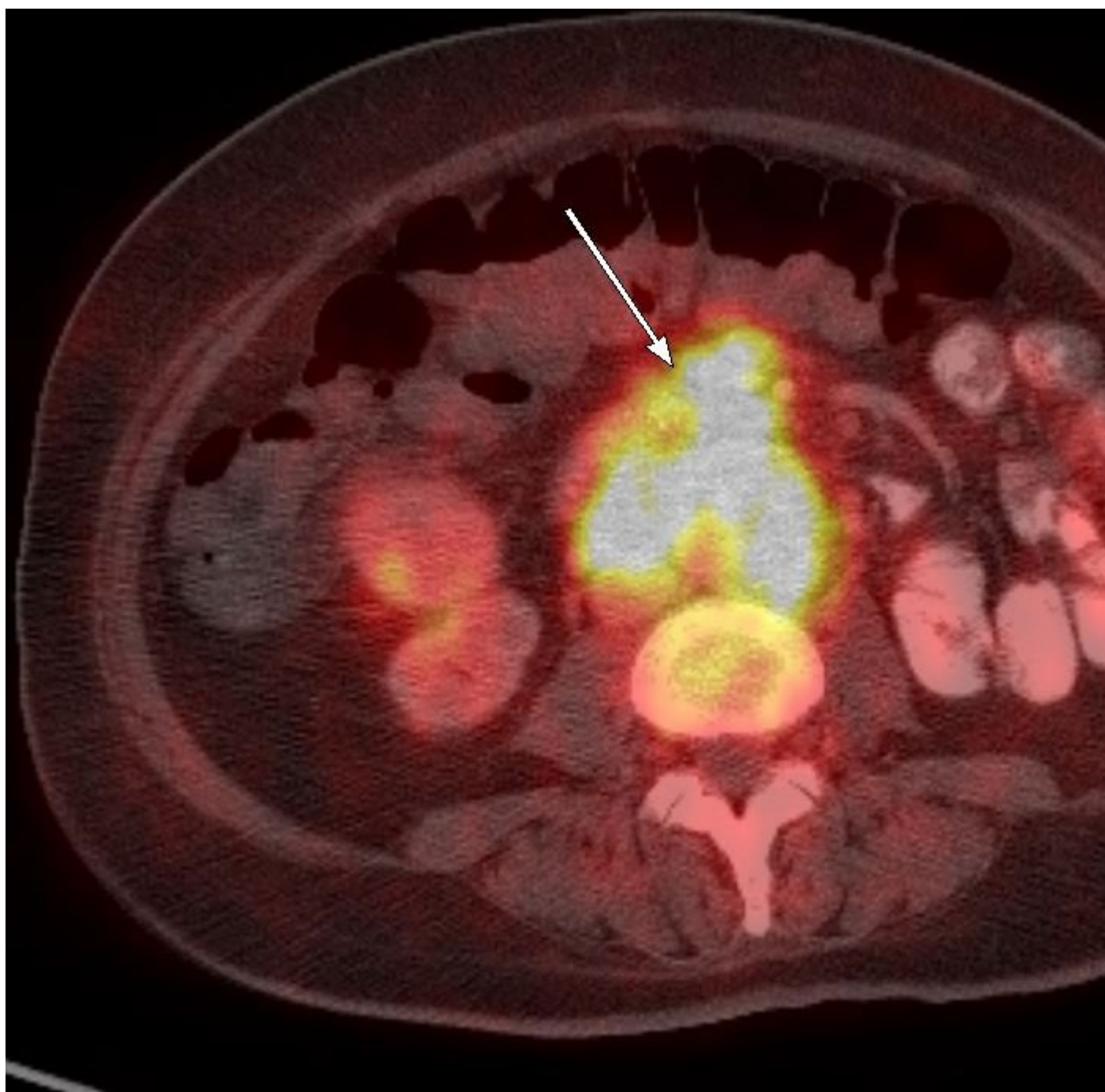
⁴ *Istanbul Bilim University Medical Faculty Department Of Radiology*

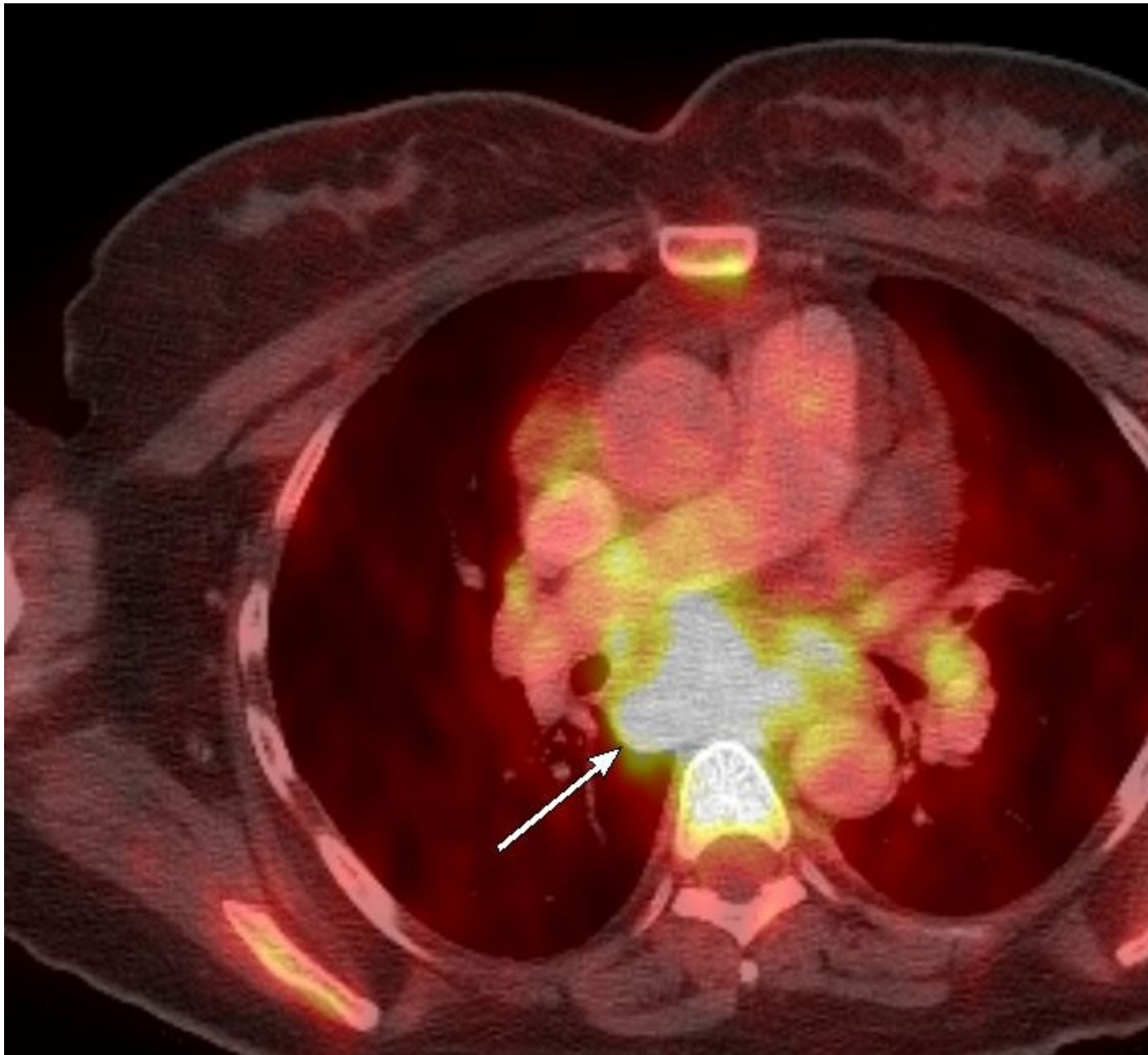
Purpose: Mycobacterium tuberculosis is a frequently seen opportunistic infection among renal transplant(RT) recipients comparing to the normal population. It is observed that the majority of cases occur during the first year after renal transplantation. Also between one-third and half of post-transplant tuberculosis cases occur as disseminated or extra-pulmonary disease. Herein , we present a milier tuberculosis case which was diagnosed in the early period after RT.

Material and method:A 45year old woman underwent a preemptive renal transplant from a living related donor(her father) with haplotip matches in March 2018. The primary of the disease was not known. She had no history of post-tuberculosis infection and close contact with active tuberculosis patients. Immunosuppression consisted of thymoglobulin induction and maintenance with prednisone, tacrolimus and mycophenolate mofetil. She was discharged from the hospital on 7th days after the operation with the level of serum creatinine 1 mg/dl. She was admitted in our unit because of recurrent fever, weakness, abdominal pain two months after surgery. Physical examination was unremarkable but she had fever(39°C). Pretibial edema and peripheral lymphadenopathy were not detected. Laboratory studies indicated white blood cell count 6450/uL, hemoglobin 8.8gr/dl, platelet count 331000/uL and C-reactive protein 13mg/dl and erythrocytes sedimentation rate 97mm/hr. Her serume creatinine(SCr) rose up from 1.2 to 1.7mg/dl. Urine analysis was unremarkable. Liver function tests were normal. Consecutive blood cultures were negative. Chest X-ray was normal without any hilar adenopathy. Abdominal ultrasound showed minimal pelvic fluid collection. A chest computed tomography scan illustrated mediastinal multiple lymphadenopathies and abdominal tomography revealed multiple lymphadenopathies in the paraaortic, intraaortacaval mesenteric areas. Positron emission tomography-computed tomography also demonstrated bilateral supraclavicular-infraclavicular, mediastinal, bilateral hiler, intracaval, paraaortic, celiac lymphadenopathies. The patient underwent surgical drainage and excisional biopsy of supraclavicular lymph node. Bacteriologic examination of the drainage liquid showed the presence of Mycobacterium tuberculosis. Four drugs(isoniazid, rifampin, ethambutol and pyrazinamide) were orally administrated. Four days after TB treatment initiated, the general condition of the patient deteriorated and the creatinin and CRP levels rose up again. The repeated chest graphy showed multiple diffuse small opasities. . At the bronchoalveolar lavage samples polymerase chain reaction and ARB were positive for M. Tuberculosis. On 10th day of the treatment general condition recovered.

Findings:







Conclusion(s): Tuberculosis is usually seen at the first year after the renal transplantation. Although the median beginning of the illness is posttransplant 11.5th month, it should be kept in mind that it can be detected at early period after transplantation.

PP-182 CHANGES IN MINERAL AND BONE DISORDER MANAGEMENT IN A MOROCCAN COHORT OF HEMODIALYSIS PATIENTS

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Introduction: Chronic kidney disease affects 5%-10% of the world's population. As renal function declines, the normal homeostatic mechanisms that control the balance of calcium, phosphorus, vitamin D metabolism, and parathyroidhormone are disrupted, leading to mineral and bone disorders. Metabolic changes in the bone can begin early in chronic kidney disease and may occur years before clinical manifestations are present. Chronic kidney disease patients with an estimated glomerular filtration rate less than 60 ml/min/1.73 m² have histological evidence of bone disease often before metabolic abnormalities are evident. There is a higher risk of fracture in patients with chronic kidney disease than the normal population. The aim of our study is to identify the impact of different therapeutic strategies based on the KDIGO (Kidney-Disease: Improving Global Outcomes) recommendations of 2009 on the control of mineral and bone disorders in chronic kidney disease. Patients and methods We prospectively evaluated the targets of the currently used Kidney Disease: Improving Global Outcomes (KDIGO) guidelines in 66 prevalent patients receiving intermittent haemodialysis therapy in moroccan hemodialysis center from january 2018 to marchr 2018.

Results: We collected 66 adult patients with end stage renal disease. The average age of our patients has been 50 years. On a clinical level, 45% of patients had bone pain compared to 30% of patients with arthralgia, mainly with large joints. Muscle fatigue was reported by 50% of patients, mainly pelvic belts. Generalized pruritus was present in 42% of patients. On the biological test, the average serum calcium is 84 mg / l. Calcemia was normal in 33% of patients, hypocalcemia was present in 64% of patients and hypercalcemia in 3% of patients. The average phosphatemia is 48 mg / l. We found normal phosphatemia in 58% of patients and hyperphosphatemia in 42% of patients. The average value of alkaline phosphatase was 106. Twelve per cent of patients had increased bone turnover According to the threshold of the KDIGO recommendations, 42% of the patients were hyperparathyroid, compared to 6% hypoparathyroidism with normal PTH in 32 cases. Discussion : In our series, the mineral and bone disorders were dominated by hyperparathroidie (or fibrous osteitis) in and adynamic osteopathy in what joins the literature in the predominance of these two forms. The average age of our patients is 50 years, age is a factor associated with the risk of developing secondary hyperparathyroidism. Sex has not been shown as a factor associated with mineral and bone disorders and especially hyperparathyroidism in the literature.

Conclusion: This study shows an improvement in the main biological parameters of phosphocalcic metabolism commonly measured in routine. Survival studies should be performed to confirm the validity of KDIGO targets or to define new therapeutic targets.

PP-183 ÇANAKKALE ONSEKİZ MART UNIVERSITY KIDNEY TRANSPLANT CENTER FIRST RESULTS

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Purpose: Kidney transplantation has become a more preferred method in the treatment of end-stage renal failure due to its survival advantage and the fact that it increases the quality of life. The aim of this study is to retrospectively evaluate the results of cadaveric kidney transplants performed in our Organ Transplant Center that was first opened in 2015 in Bursa.

Material and method: Fifty-three patients undergoing cadaveric kidney transplantation between July 2015 - July 2016 and April 2017 - April 2018 were evaluated for demographic data, rejection status, graft loss, patient loss, postoperative surgical complications, post-transplant malignancy.

Findings The mean age of recipients and donors was 51.84 ± 12.79 (25-74) and 55.83 ± 20.11 (16-87) years, respectively. Male / female ratio was 33/20 and 29/24 in recipient and donor groups, respectively. The mean HLA compliance of the recipient and donor was 1.81 ± 1.04 . The mean duration of cold ischemia is 10 hours. A 12 cm 4.8 F double-J catheter was placed in each recipient and it was removed after an average of 28 days. Acute rejection developed in three cases, which was proven with biopsy. Patients did not respond to antirejection treatment applied. In the post-transplant period, lymphocele was observed in four, hematoma in one, high creatinine in five and urinary tract infection in four patients and the patients were admitted and monitored. One case died in early stage.

Conclusion(s): Our kidney transplantation program is improving. However, short-term outcomes are consistent with the literature. Two-year survival rates and graft survival rates of our patients were calculated as 99% for the same period. With the results of longer follow-up, more significant conclusions can be obtained.

PP-184 PRE-EXISTING HYPERTENSION IN RENAL TRANSPLANTATION: IMPACT ON BLOOD PRESSURE PROFILE AND GRAFT SURVIVAL

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Introduction: High blood pressure (HBP), being a risk factor for cardiovascular mortality, is common in patients with terminal renal failure and those with renal transplants. The objective of this study was to analyze the characteristics of pre-transplant hypertension, its course, impact on graft function and cardiovascular mortality.

Material and Method : This is a retrospective study of kidney transplantation in our department. Hypertension was defined according to WHO criteria (SBP ≥ 140 mm Hg and / or DBP ≥ 90 mmHg). In order to assess the impact of HBP: severity, impact on renal and cardiovascular function, renal transplant patients were divided in two groups: G1 (preexisting hypertension) and G2 (normotensive before RT).

Results: We collected records for 103 kidney transplant patients with a mean age of 33.12 $\pm$ 11.8 years. Fifty-one (51) patients had HBP before transplantation (G1), a prevalence of 49.5%. One year after transplantation 71.3% of RT patients were hypertensive. The prevalence of HBP was higher in hypertensive patients in pretransplantation compared to normotensive (84.4 vs 59.2% $p = 0.007$). There was no difference in blood pressure levels between the two groups, but blood pressure control was more difficult in transplant recipients with pre-existing HBP; in fact, at least two antihypertensive drugs were required in 65.8% (vs 31%). Optimal blood pressure control (BP 80/130 < mm Hg) was obtained in only 11.9%, but 77.1% of TR had a BP $\leq 140 / 90$ mmHg and there was no difference between the two groups. In this study the prevalence of hypertension was higher in patients with HBP in pre-transplantation. This type of hypertension is usually more severe and more difficult to control, as attested by the need for more antihypertensive drugs.

Conclusion: Pre-existing hypertension is frequent in transplant patients and tends to persist in post transplantation. It is usually more severe, more difficult to control and increase the risk of graft loss, hence the need for adequate care.

PP-185 THE HEMATOLOGICAL COMPLICATIONS AFTER KIDNEY TRANSPLANT

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Purpose: The purpose of this work is to estimate prevalence of the hematological complications after TR and their impact on the survival of the transplant and the patient.

Material and method: Retrospective and monocentric study concerning 76 renal transplanted between January 2009 and December 2017. We have revealed the rate of haemoglobin (Hb) after TR, in 1 month, on 6 months and 1 year, as well as the rate of leukocytes and platelets. The threshold used to define an anaemia is $Hb13 > g / dl$ in man and $17g / dl$. Leukocytes / $4000 > mm^3$ defined the leucopenia, platelets / $150000 > mm^3$ defines the thrombocytopenia.

Findings: The average age is of 37.81 ± 10.84 years (12 years and 65 years) with a light male ascendancy (62.85 %), a haemoglobin mean transplants average to 11,15 g/dl, prevalence of the anaemia is 28,57% in 1 month, 17,14 % in 6 months then decreases in 15,71 % after 1 year. The dysfunction of the transplant is the main predictive factor of the arisen of a late anaemia. The polycythaemia appeared at 4 patients after a median deadline of 4 months. Three patients presented a leucopenia during their follow-up of infectious origin in every case. The thrombocytopenia is noted at 6 patients of iatrogenic or infectious origin appeared after an average deadline of 5 month.

Conclusion(s): The hematological complications after TR are frequent, the causes of neutropenia and thrombocytopenia are widely dominated by the toxicity medicinal and the infections. The anaemia can result as in the chronic renal insufficiency of an iron deficit, an inflammatory syndrome and especially a deficit of secretion of erythropoietin in case of dysfunction of transplant. The hematological complications are frequent further to a TR, their correction is essential to improve the survival of the renal transplant and decrease the mortality.

PP-186 OUR PRELIMINARY RESULTS ON LAPAROSCOPIC DONOR NEPHRECTOMY

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Purpose: The aim of this study was to evaluate the preliminary results of laparoscopic donor nephrectomy in a newly established organ transplantation center.

Material and method: We presented a retrospective study on a series of 3 consecutive transperitoneal laparoscopic donor nephrectomy performed in our transplant center between the dates January 1, 2018, and July 31, 2018.

Findings: All the 3 patients were male, the mean age was of 46.3 (range 41-56) years. All of the cases were successfully completed laparoscopically except the first case because of anatomic difficulties. Mean operation time was 180 ± 40 (range 150-220) min and mean hospital stay was 6 (range 5-7) days. Mean warm ischemia time was 150 ± 30 (range 120-180) sec. No intraoperative and postoperative complications were seen.

Conclusion(s): To our preliminary experiences on laparoscopic donor nephrectomy, it is safe and effective way to ensure graft for kidney recipient. To evaluate the exact results a larger number of patients are needed

PP-187 ÇANAKKALE ONSEKİZ MART UNIVERSITY KIDNEY TRANSPLANT CENTER EXPANDED CRITERIA DONOR RESULTS

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Purpose: In kidney transplantation, considering the age, serum creatinine (SCr) concentration, cerebrovascular event (CVE) and hypertension (HT) factors, the relative risk of graft failure for the donor is determined. Donors considered as expanded or extended-criteria donor (ECD) are as follows: -between 50-59 years; CVE + HT + SCr 1.5 <mg/dL, CVE + HT, CVE + SCr 1.5 <mg/dL or HT + SCr 1.5 <mg/dL -,if ≥ 60 years, in addition to the above, one of the criteria of CVE, HT or SCr 1.5<mg/dL $60 \leq$ -,years of age alone .All donors under the age of 60 who do not carry the above characteristics are donors with standard criteria .The aim of this study is to evaluate retrospectively the results of the expanded criteria donor kidneys in cadaveric kidney transplants performed in our Organ Transplant Center opened in 2015 in the Bursa region.

Material and method: 54 patients who underwent kidney transplantation from cadaver between July 2015 to July 2016 and April 2017 to April 2018 were evaluated retrospectively according to the above criteria.

Findings: The mean age of recipients and donors was 51.84 ± 12.79 (25-74) and 55.83 ± 20.11 (16-87) years, respectively. Male/female ratio was 33/20 and 29/24 respectively in recipients and donors. 22 of the donors were in the Extended Criteria Donor (ECD) class. ECD Male/female ratio was 13/9. Mean age of male ECDs was 72.38 ± 6.14 years and mean age of female ECDs was 72.55 ± 12.54 years

Conclusion(s): Despite efforts to increase kidney donation from live donor and strategies such as cross transplantation, organ shortage is an important problem for patients with end-stage kidney disease waiting for renal transplantation. The donor pool can be further expanded using more ECD kidneys. Despite the shorter graft survival in ECD transplants, these kidneys provide more survival advantage over patients undergoing hemodialysis. The use of ECD kidneys is necessary to maintain current transplantation rates

PP-188 KAPOSI SARCOMA WITH ONLY LYMPH NODE INVOLVEMENT IN LIVER TRANSPLANTED PEDIATRIC CASE

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Introduction: Kaposi sarcoma is mostly encountered in immunosuppressed individuals. Although the lesions on the skin or lung are well-defined, lesions in other regions are rare and thus difficult to recognize.

Case: Thirteen-year-old-female patient who underwent LDLT due to autoimmune hepatitis, was on steroid+TAC+MMF treatment during the postoperative period. There was a complaint of throat pain emerged at the postoperative 4th month. Bleeding in throat, common purpura and ecchymoses in the lower extremity were revealed on the physical examination. Pancytopenia and severe thrombocytopenia were also detected. Therefore, MMF therapy was stopped. It was found that Direct Coombs was negative, Ferritin was high, Immunglobulins were normal, Haptoglobin-C3-C4 was low in laboratory parameters. Viral serology and galactomannan were determined negative. No evidence of hemophagocytosis was found in the histopathological examination of bone marrow biopsy. Splenic artery embolization was performed due to ongoing findings of the patient despite symptomatic treatment, but we had to performed splenectomy immediately after the procedure because of the lack of the benefit of the splenic artery embolization. Histopathologic examination of the splenectomy material revealed necrosis, sinusoidal congestion and dilatation in the red pulp, extramedullary hematopoiesis and Kaposi sarcoma was found in the hilar LN incidentally. In the immunohistochemical study, HV8(+), CD31(+), CD34(+), CD8(-), CD68 (-), Factor-VIII(-) and WT1(-) were detected. However, mTORi therapy was administered. The HSV6 was found negative. The patient's clinical status and laboratory parameters were improved rapidly after the LN were removed and the mTORi administered. There weren't any problem encountered during the follow-up period in our outpatient clinic.

Conclusion: Kaposi sarcoma should be kept in mind in the unexplained tonsillary hemorrhage and bone marrow findings.

PP-189 NEPHROLOGIST

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Bursa Acibadem Hastanesi

Abstract: Kadavradan nakil olan hastalarımızın Diyalizde bekleme süreleri Amaç: Merkezimizde Kadavradan nakil olan hastalarımızın bekleme sürelerini belirlemek.

Giriş: ABDde organ bağışı bekleyen kişiler genellikle beş ila yedi yıl kadar sıra bekliyor. 2012-2018 arası Kadavradan nakil olan 250 hastamızın diyaliz de bekleme süreleri belirlenmek üzere geriye doğru tarandı.

Tartışma ve Sonuç: Geriye doğru 250 Kadavra nakili taradığımızda; 8 yıllık (n: 27) Diyaliz hastasının nakil olma oranı % 10.8; 5 yıllık (n: 21) Diyaliz hastasının % 8.4; 1 yıllık (n: 20) Diyaliz hastasının % 8; 6 yıllık (n: 19) Diyaliz hastasının % 7.6; 2 ve 3 yıllık (n: 18) Diyaliz hastasının % 7.2; 7 ve 11 yıllık (n: 17) Diyaliz hastasının % 6.8; 4 yıllık (n: 15) Diyaliz hastasının % 6; 10 yıllık (n: 14) Diyaliz hastasının % 5.6; 12 ve 13 yıllık (n: 13) Diyaliz hastasının % 5.2; 9 yıllık (n: 12) Diyaliz hastasının % 4.8; 14 yıllık (n: 5) Diyaliz hastasının % 2; 15 ve 19 yıllık (n: 4) Diyaliz hastasının % 1.6; 16 ve 17 yıllık (n: 3) Diyaliz hastalarının % 1.2; 18, 20, 21, 22, 23, 24 ve 27 yıllık (n: 1) Diyaliz hastalarının nakil olma oranlarının % 0.4 olduğu görüldü. Bizim verilerimize göre Diyaliz tedavisi alan bir hastanın diyalizde bekleme süreleri ve nakil olma oranları yukarıdadır. Burada gözlenen uyumsuzluğun çözümleri üzerine projeler üretmeliyiz. Bu oranların erken diyaliz dönemlerine denk gelecek şekilde arttırılması için Kadavra bağışının arttırılması, kadavra bekleme listesine yazılmanın öneminin hatırlatılması, erken böbrek rahatsızlığı dönemlerinde nefroloji uzmanına ulaşmasının sağlanması, bunların ulusal bir proje bağlamında devlet tarafından desteklenmesi gereklidir.

PP-190 NEPHROLOGIST

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Abstract: Renal Transplantasyon Olan Hastaların İdrar Kültüründe En Sık Üreyen Patojenler ve Antibiyogramlarının Ampirik Tedavi Açısından Değerlendirilmesi.

Amaç: Renal transplante olan hastalardaki İYE en sık etkenini belirlemek ve antibiyogram sonuçlarını değerlendirmek.

Yöntem: Geriye doğru Ocak 2017 / Ağustos 2018 arasında üreme olan 134 idrar kültürü tarandı. Esherichia Coli (n: 80) % 60 ile en fazla üreyen patojen olarak karşımıza çıkmakta. Antibiyogramlarını incelediğimizde E.Colinin en fazla dirençli olduğu antibiotikler; Ampicillin-Sulbactam % 97.2 (n: 72), Ampicillin % 89.7 (n: 78), Cefepime % 84.2 (n: 19), Amoxicillin-Clavulanic acid % 74.1 (n: 58), Trimethoprim-Sulfamethoxazole % 73.4 (n: 79), Cefuroxime (IV) % 66.6 (n: 36). Hiç direnç görülmeyen antibiotikler ise; Amikacin (n: 71), Ertapenem (n: 77), Imipenem (n: 36) ve Meropenem (n: 34)

Sonuç: İdrar kültürü sonucu gelene kadar seçilecek ampirik tedavinin değerlendirilmesi açısından bu bildirinin yol göstereceğini umuyoruz.

PP-191 BILAN D'ACTIVITÉ EN TRANSPLANTATION RÉNALE AU CHU IBN ROCHD DE CASABLANCA

Sophia Zahid

Chu Ibn Rochd

Abstract: Depuis 1986, la transplantation rénale a permis de révolutionner le sort des patients dialysés, plus encore depuis le développement des prélèvements à partir de donneurs en état de mort encéphalique. Il s'agit d'une étude descriptive rétrospective, étalée sur une période de 27 ans : du 1^{er} Janvier 1986 au 31 Décembre 2014, au service de Néphrologie du CHU Ibn Rochd. Durant la période de l'étude, 202 patients ont bénéficié d'une transplantation rénale. L'âge moyen était de 32 ans. 5% des TR étaient des greffes pédiatriques. 10,4% des TR ont été réalisés à partir d'un donneur cadavérique. 5,9% de nos patients ont bénéficié d'une greffe préemptive. La néphropathie causale était indéterminée dans 60% des cas, et l'ancienneté en dialyse moyenne était de 39 mois. A moyen et long terme, 21,3% des transplantés ont présenté un rejet du greffon dont 60% étaient aigus, tandis que 5,1% ont présenté une néphropathie de novo après TR. Aussi, les complications infectieuses étaient la complication la plus fréquente dont 45% étaient bactériennes, suivies par les complications cardiovasculaires avec l'apparition d'une HTA chez 33%. Par ailleurs, 9,1% de nos patients ont présenté un diabète de novo après TR et 7,4% ont développé des néoplasies. Au terme de notre étude, 46% vivent avec une fonction rénale normale, 25% ont une insuffisance rénale, 12% sont retournés en dialyse et 17% sont décédés.

PP-192 TUTORIALS FOR HARVESTING ORGANS FROM CADAVERIC DONORS AND ACCEPTABLE PACKAGING FOR TRANSPORTATION

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Introduction: The most effective treatment for chronic renal failure and liver failure is organ transplantation. In our country, cadaver donation is not at the desired level. The extraction of donated organs is very important for reuse in other recipients. Errors in the extraction and packaging of organs may reduce the quality of the graft and sometimes cause the graft not to be used. In this presentation, we wanted to share our experience of surgery in cadaveric organ harvesting.

Surgical Method: Median laparotomy and vertical incision is performed to open the cadaveric abdomen. The internal organs of the abdomen are evaluated for infection, abscess, tumor or congenital anomalies. First, the liver is checked for replace arteries, the liver is released from the diaphragm, and then the choledoch is cut from the distal most near to the pancreas. The choledoch is washed by isotonic administration through the gallbladder.

First cecum is released from white line. Abdominal aorta is stringed up and ligated by following iliac arteries at iliac bifurcation point and then it is cannulated. Meanwhile, caution should be taken for bleeding from vena cava and iliac veins.

The inferior mesenteric vein is found and then cannulated. The splenic vein or superior mesenteric vein can be cannulated if the inferior mesenteric vein is string. After cannulation, 25 000 units of heparin I.V. is applied. Then perfusion solution is connected to the cannula and perfusion is performed. A supra celiac cross clamp is placed and the diaphragm is dissected and the vena cava is cut from the right atrium level.

Inferior vena cava is cut from the supra renal line under liver. Then the left renal vein is cut so that the left renal vein injury is prevented when median opening for aortic nephrotomy. Within the peritoneum, the portal vein is found and cut through the superior mesenteric vein and splenic vein junction. Median incision is performed to the abdominal aorta beginning from cannulation level, to the superior mesenteric artery root. Then abdominal aorta is completely cut off from the SMA root, level and cross clamp level. The liver is then released from the surrounding tissues and hepatectomy is completed.

Renal arteries and if present polar renal arteries are seen after the medial incision and opening of the abdominal aorta. Nephrectomy is completed after releasing the renal artery and renal vein and after cutting the ureter with ureteral fat tissues from the ureteric bladder.

The removed organs must be washed and perfused again till perfusion solution become clear. If there is no initial perfusion solution during packing, the organ should be put into cold isotonic. The organ should not be wrapped with sponge or compresses. Ice should not be placed in the bag where the organ is located. The first bag is then placed in the second bag, in which sterile ice is placed. If the organ is kidney, marking should be made to

specify the kidney's side. All the content is placed into the last bag. The cross clamp time, and anomalies seen in the organ should be noted. The packaging of the organ should be in the responsibility of harvesting team.

Discussion: We decided to make this presentation because of the errors in the extraction and packaging of the organs coming from the outer centers. Large capsules and parenchymal injuries in the liver from the external center, portal vende thrombus; In kidneys, we decided to make this presentation because we encountered intimal dissection in the arteries, close to the hilus, short ureter cut, direct ice contact kidney and we wanted to share our 6 years 84 surgical experience.

PP-193 DUAL LOBE LIVER TRANSPLANTATION IN A PATIENT WITH RENAL DYSFUNCTION USING A NOVEL TECHNIQUE OF WITHOUT CROSS CLAMPING THE INFERIOR VENA CAVA

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Abstract: Background Dual Lobe Liver Transplantation (DLLT) requires judicious selection, planning, and extensive experience. Conventional implantation involves IVC clamping and implantation of right and left lobes together, with venous outflow and portal inflow anastomosis of both, followed by simultaneous portal perfusion. We present our technique of DLLT (right + left lobes) without IVC cross clamping, and sequential perfusion. 47 years old male patient of 110 kg (Child's- 12 and MELD-31), with recent acute kidney injury. Patient's wife and daughter were donors. Estimated GRWR with their right lobe grafts were 0.65 and 0.57 respectively. Hence right and left lobes (696+274g – total GRWR 0.9) were taken. Video description: Recipient hepatectomy was performed keeping the LPV, RPV, RHA, LHA, RHD, LHD, RHV, MHV and LHV stumps long, preserving the IVC. Temporary Portocaval shunt with RPPV was done while waiting for donor grafts to be prepared. Bench preparation was complex. Right lobe needed a PTFE boat graft. Neo-MHV was reconstructed by anastomosing one segment V and two segment 8 hepatic veins to an 8 mm PTFE graft. Left lobe MHV and LHV venoplasty was done. Right lobe had a single, and left lobe had two hepatic arteries. Implantation- Sites of anastomoses for right lobe RHV and neo-MHV, and left lobe MHV-LHV orifice were marked on the upper IVC, ensuring enough space for vascular side clamps. Right lobe was implanted first by side-clamping the IVC with successive, Satansky vascular clamps for RHV, boat graft and then MHV anastomoses. Following this, RPV of graft was anastomosed to recipient RAPV. All right lobe outflow anastomoses were clamped together with our indigenously designed side-biting vascular clamp with 10 cm long blades. Long-blade side clamp and portal vein clamps were released to perfuse right lobe graft. Next, same special clamp was used for MHV/LHV stump and adjoining portion of IVC. Outflow of left lobe graft was anastomosed, followed by donor LPV to recipient LPV. After portal perfusion of both grafts, all 3 arterial anastomoses were done. Recipient right hepatic duct was anastomosed to the spectacted (RASD + RPSD) RL donor ducts and LHD–LHD anastomosis was done on LL using Glissonian & parachuting technique. Actual GRWR was (Rt-674 g + left-301 g) 0.98%. Recipient and both donors are well at 1 month after transplant. Conclusion: DLLT is feasible in heavy/ morbidly obese, high MELD recipients with renal dysfunction, without clamping the IVC, using a specially designed side vascular clamp, and sequential implantation technique

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