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**Purpose:** In order to improve clinical risk-assessment and outcomes in patients undergoing orthotopic liver transplantation (OLT), a variety of prognostic markers have been reported. The aim of this study is to investigate the predictive value of the preoperative CRP to albumin ratio (CAR), with regards to perioperative morbidity and mortality in adult OLT recipients.

**Methods:** All patients who underwent deceased-donor OLT between 05/2010 and 03/2020 were considered for this retrospective study. Split-, domino- and re-transplantations were excluded. The predictive ability of the preoperative CAR was examined by calculating the area under the receiver operating characteristic curve (AUROC). Group comparisons were carried out using parametric and non-parametric tests where appropriate. Independent risk factors for morbidity and mortality were identified using uni- and multivariable logistic regression analyses, whereas the log-rank test and Kaplan-Meier method were used to analyze patient survival.

**Results:** The ROC analysis showed a good predictive ability for CAR with respect to the comprehensive complication index (CCI)>75, Clavien-Dindo score >4a and 12-month mortality. Youden-index analysis identified an ideal CAR cut-off of 26%. Patients in the CAR>26% group had a significantly higher mean CCI (62 ± 31 vs 45 ± 27, p < 0.001) and longer intensive care unit (17 ± 42 vs 8 ± 17 days, p < 0.001) and hospital (41 ± 44 vs 28±24 days, p < 0.001) stays. The multivariable analysis identified CAR > 26%, pre-OLT inpatient hospitalization (including ICU) and postoperative red blood cell transfusions within 7 days as independent predictors of severe cumulative morbidity (CCI > 75). Patients with CAR>26% also suffered from significantly lower 12-month survival rates (80% vs 94%, p < 0.001).

**Conclusion:** The preoperative CAR is a reliable predictor of perioperative morbidity and mortality in liver transplantation.
0.006) and presence of microvascular invasion (U = 10; z = -2.130; p = 0.033). The recurrence-free survival was lower in patients with SUVmax > 3.5 (log-rank 14.6; p < 0.001) and pre-LT CTC levels > 9 (log-rank 4.2; p = 0.040). A correlation was found between CTC levels and the days on waiting list (p = 0.002), tumor size (p = 0.001), positive PET-CT (p = 0.024) and presence of microvascular invasion (p = 0.033). Recurrence-free survival was lower in patients with CTCs ≥ 9 (p = 0.040).

Conclusion: CTC levels in patients with HCC undergoing LT are associated with clinical and pathological factors of poor prognosis. CTC levels decrease significantly after LT.

EP261
ANATOMICAL ARTERIAL VARIATIONS OF HEPATIC ARTERIAL SUPPLY IN DONOR LIVERS
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The classical arterial supply to the liver is only found in 50-80% of cases. Several classifications attempt to define and sort these variations, the most commonly used being Hiatt/Michels'. Early identification of arterial variations can prevent vascular damage during harvesting and back table surgery that could lead to postoperative complications. There are few published series focusing on donor hepatic arterial variations. We present our data.

Methods: Retrospective study of prospective database. Period: September/2012-January/2021. No exclusion criteria. We performed back-table evaluation of the donor hepatic arterial anatomy prior to transplantation, defining normal anatomy as common hepatic artery (CHA) arising from the celiac trunk (CT) and branching off into gastroduodenal artery (GDA) and proper hepatic artery (PHA) which in turn splits into right (RHA) and left hepatic artery (LHA) without any accessory branches.

Results: We performed 314 liver transplants, of which 222 had normal anatomy and 92(29.3%) presented variations: 33(35.9%) accessory/replaced RHA from superior mesenteric artery (SMA); 33(35.9%) accessory/replaced LHA from left gastric artery (LGA), 14(15.2%) accessory/replaced RHA from SMA and LHA from LGA, 5 CHA from SMA (5.4%); 2 RHA from celiac trunk (2.1%) and 6 single variations: CHA from Aorta, RHA from Aorta + LHA from LGA, RHA from CT + LHA from LGA, CHA from SMA + accessory RHA, and accessory RHA from Splenic Artery.

Conclusions: A refined procurement technique is mandatory to avoid vascular injuries. Procurement surgeons should be aware of all potential variations to avoid complications in the recipient. Our data are similar to previous published series.

EP262
LIVER TRANSPLANT FOR PORTO-SINUSOIDAL VASCULAR DISEASE: LONG-TERM OUTCOME
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Purpose: PSVD is a rare disease usually with preserved liver function. Yet, some patients develop complications of portal hypertension or liver failure and require liver transplantation (LT). Data regarding LT are limited. The objective was to describe indications and outcome of LT in patients with PSVD.

Method: Retrospective VALDIG network multicentre study, 80 PSVD patients who underwent LT between 1996 and 2019: 51 came from a prospective international cohort of 587 patients and 29 additional were transplanted with the misdiagnosis of cirrhosis. Those patients without an underlying-disease or that have a similar life-expectancy to healthy patients, ie autoimmune hypothyroidism, were classified as mild underlying-disease. The remaining with potentially associated disorders with reduced life-expectancy, such as severe lupus were classified as severe.

Results: Indications for LT were 24 (30%) refractory ascites, 16 (20%) hepatic encephalopathy, 13 (16%) hepatopulmonary syndrome, 8 (10%) liver failure, 4 (5%) spontaneous bacterial peritonitis, 2 (2%) hepatorenal syndrome, 2 (2%) hepatocellular carcinoma, 1 (1%) recurrent portal hypertension related bleeding and other indications 10 (12%). Patients were categorized according to severity of the underlying-disease, 48 had a mild underlying-disease, the remaining 32 severe. Mean post-LT follow-up was 60 ± 60 [1-265] months. Twenty-four patients died after a median of 44 ± 70 [1-235] months, eight due to hepatic related conditions and 16 due to the underlying-


disease. Post-LT cumulative survival was 82%, 81% and 69%, at 1, 2, 5 years. Post-LT survival was significantly better in patients without a severe underlying-disease (p = 0.05) (Figure). Six patients (7.5%) required a new LT (hepatic artery thrombosis n = 2, acute liver failure n = 2, graft loss n = 1, and unresolvable biliary complication n = 1). Consequently, overall graft survival was 81%, 78% and 66%, at 1, 2, 5 years respectively. Seventeen patients (21%) experienced acute rejection, and two developed chronic rejection. There were no reports of de novo post-transplant neoplasia.

Conclusion: The present large series, shows that when required, LT is associated with a good long-term outcome provided PSVD is not associated with a severe underlying-associated disease. Therefore, the severity of the underlying-disease must be taken into account when considering LT for these patients.

EP263

EARLY KIDNEY DYSFUNCTION AFTER LIVER TRANSPLANTATION. ANALYSIS OF THE FACTORS INVOLVED IN ITS APPEARANCE AND ITS IMPACT ON THE EVOLUTION OF PATIENTS


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Purpose: Post-liver transplantation acute renal dysfunction is a poorly studied issue. We provide the results of an analysis, focused on identifying factors favoring its appearance, and analyzing the real impact of its development on the evolution of patients.

Method: Observational single-center study carried out in a Spanish Liver Transplant Unit on a cohort of patients undergoing orthotopic liver transplantation from a cadaveric donor between May 2011 and October 2018. The presence of acute renal dysfunction (RIFLE criteria) was considered as a decrease in glomerular filtration rate (GFR) greater than 50% 48 hours after transplantation compared to the GFR immediately before transplantation.

Results: Of 237 transplants performed, 172 met the inclusion criteria. They were mostly male patients (78%), with a median age and biological MELD score of 54 years and 15 points, respectively, and a prevalence of diabetes mellitus and arterial hypertension of 31 and 25%, respectively. The incidence of acute renal dysfunction was 29.7%, and the independent predictive factors for its development were pre-transplant arterial hypertension (Odds Ratio (OR) of 2.7), and pre-transplant deterioration of the recipient’s liver function (OR 4.1). The development of acute renal dysfunction favors the appearance of early liver graft dysfunction according to the Olthoff et al criteria (p = 0.005). Although the survival at 3 and 6 months of the patient decreases (93.4 and 89.7% vs. 80 and 75%, respectively), and graft (90.9 and 87.9% vs. 80 and 75%, respectively), it does not alter the long-term survival of either of the two (p = 0.109 and 0.72, respectively).

Conclusion: The factors that favor the appearance of early acute renal dysfunction after liver transplantation are arterial hypertension and the deterioration of liver function. Its establishment favors the development of early liver graft dysfunction and worsens patient and graft survival in the short and medium term, although it does not affect the long-term survival of both or kidney function.

EP264

INFLUENCE OF DONOR AND RECIPIENT SEX MATCHING ON SIMULTANEOUS PANCREAS-KIDNEY TRANSPLANTATION OUTCOMES

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Purpose: The objective was to analyze the influence of the sex matching between donor and recipient in the overall survival and the SPK grafts survival in our center.

Methods: We conducted a retrospective analysis on a prospective database of SPK transplants performed between February 1989 and June 2019 at a regional referral center (n = 199). SPSS v22 was used for the statistical analysis, considering a value of p <0.05 to be statistically significant.

Results: Of the 199 recipients, 148 (74.4%) were men. In the donor group 131 (65.8%) were men. In 91 patients (47.5%) there was a sex mismatch between donor and recipient. The median follow-up time was 117 months (range 0-337). Overall survival (OS) was 93.5% at 5 years, 84.3% at 10 years, and 71.5% at 15 years. In the group with sex mismatch, OS at 5, 10 and 15 years was 94%, 82.3% and 71.7% compared to 92.3%, 85.1% and 72.2% in the sex matched group, not finding statistically significant differences (p = 0.86). Graft survival, censored for patient death of the pancreatic (dCPGS) and renal (dCKGS) at 5, 10 and 15 years was 78.5%, 64.9% and 62.3% in the pancreatic graft and 90%, 84, 9% and 79.8% in the kidney graft. In the sub-analysis dCPGS at 5, 10 and 15 years was 79.5%, 60.8% and 57.5% in the group with sex mismatch compared to 77.5%, 67.8% and 65.5% in the sex matched group (P = 0.54). dCKGS at 5, 10 and 15 years was 89.3%, 85% and 78.1% in the group with sex mismatch compared to 87.3%, 83.5% and 78.8% in the other group (P = 0.69).

Conclusion: Our study shows that sex mismatch between donor and recipient in SPK transplantation does not negatively influence perioperative results, graft survival or patient survival. Currently, SPK transplantation with sex mismatch is a safe practice that must continue to compensate for pancreas grafts shortage.
EP265
HEALTH-RELATED QUALITY OF LIFE AND PANCREAS TRANSPLANTATION. DOES IT IMPROVE OUTCOMES?
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Purpose: Pancreas transplantation (PT) is one of the few ways to restore euglycemia within diabetic patients; however, the high morbidity caused by surgical complications and the need for immunosuppressive therapy has raised controversy about PT improving the health-related quality-of-life (HRQoL).
Method: A single-center, cross-sectional study of 69 patients underwent to 70 sequential PT was performed. All patients conducted a telephone interview to fulfill the modification of Medical Outcome Health Survey Short Form questionnaire (SF-36v2).
Results: Through assessing HRQOL based on SF-36v2 questionnaire, scores above 60 points were obtained for all health domains except for General Health item (59.66 points). Mean scores for different scales were: Physical Functioning 78.09 points (SD: 23.19 points), Role-Physical 68.05 points (SD: 30.45 points), Bodily Pain 70.47 points (SD: 31.34 points), General Health 59.66 points (SD: 25.87 points), Vitality 63.49 points (SD: 25.72 points), Social Functioning 71.62 points (SD: 28.14 points), Role-Emotional 80.42 points (SD: 27.56 points) and Mental Health 75.39 points (SD: 22.68 points). The variability of health state in comparison with the period prior to transplant showed that 95.1% of the patients had better perception of their current health state.
Conclusion: In our series, the HRQoL of diabetic patients with end-stage renal disease significantly improved after simultaneous pancreas-kidney transplantation. The development of HRQoL specific questionnaires to PT may homogenize the results between different transplant programmes.

EP266
RESULTS OF PANCREAS TRANSPLANTATION IN A MEDIUM VOLUME CENTER
Hospital Universitario de Salamanca, Spain
Purpose: Pancreas transplantation (PT) is one of the few ways to restore euglycemia within diabetic patients; however, the high morbidity caused by surgical complications and the need for immunosuppressive therapy has raised controversy about PT improving the health-related quality-of-life (HRQoL).
Methods: We performed a prospective study about 70 PT performed between 2009-2018. Postoperative complications related to PT were grouped according to the Clavien-Dindo classification. Graft function was defined by the Organ Procurement and Transplantation Network (OPTN) and the Igls criteria from the International and European Pancreas & Islet Transplant Association.
Results: 68 SPK and 2 PAK were performed. The median cold ischemia time was 11 hours and 50 minutes and the median hospital stay was 14 days. PT-related surgical complications appeared in 45.7% of patients. Long lasting postoperative ileus was the most frequent complication (14.3%), followed by small bowel obstruction (12.9%). Pancreatic fistula occurred in 8.6%. Allograft pancreatitis occurred in 4.3%, and there were 2 cases of pancreas allograft thrombosis (2.9%). Most complications were Clavien-Dindo grade I (35.48%), II (27.41%) and IIIb (30.65%). Patient survival at 1 and 5 years was 98.6% and 94.3%, respectively. Graft survival at 1 and 5 years was 95.6% and 86.6%, respectively.
Conclusions: PT-related surgical complications in our study showed similarity with larger published series. In some cases, such as allograft pancreatitis or pancreas allograft thrombosis, the incidence was significantly lower. Patient and graft survival are in the highest range of the best published series.

EP267
ORTHOTOPIC LIVER TRANSPLANTATION IN MASSIVE POLYCYSTIC LIVER
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Introduction: Liver failure is uncommon in patients with polycystic liver due to hepatic regeneration. The minority of patients will progress over the years to advanced liver disease or develop complications because of massive hepatomegaly. We present the case of a patient with a massive polycystic liver disease that required an orthotopic liver transplantation.
Methods: 61 years old female with familiar and personal history of polycystic liver and kidney disease. Physical examination revealed a massive but not painful hepatomegaly. She presented several episodes of liver cyst infection, requiring antibiotic treatment and percutaneous drainage, however kidney and liver function were not altered. Treatment with subcutaneous Lanreotide was initiated but after a new episode of liver cyst infection, orthotopic liver transplantation was proposed. An abdominal CT scan was performed before surgery showing a sever liver and kidney polycystic diseases with no vascular abnormalities.
Results: Hepatectomy was performed, with removal of the inferior vena cava and its total clamping. A giant hepatomegaly with several cysts over its entire surface and ascites (Image 1) was appreciated. Donor liver was implanted with anastomosis of the inferior vena cava, portal vein, biliary duct, and hepatic artery. Reperfusion was correct with a total ischemia of 7 and a half hours.
Conclusion: Orthotopic liver transplantation in polycystic liver disease is a highly complex surgical intervention due to liver size, displacement of the vascular structures and organs, and with greater risk of blood loss during surgery.