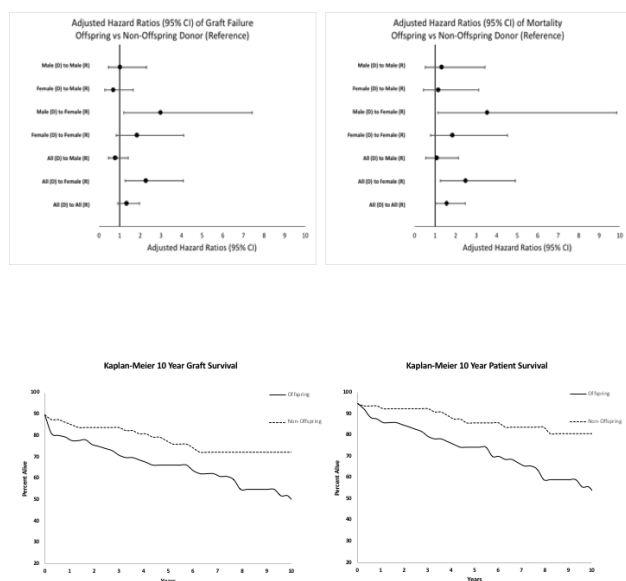


POSTER SESSION B: LIVER: LIVING DONORS AND PARTIAL GRAFTS



CITATION INFORMATION: Choudhury R., Dagan A., Yaffe H., Yoeli D., Pomfret E., Nydam T. Inferior Graft and Patient Survival Following Offspring to Parent Living Donor Liver Transplantation *Am J Transplant.* 2019;19(suppl 3).

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Abstract# B337

Near-Miss Events during Donor Left Liver Lobe Hepatectomy: A Potential Quality-Control to Assess Donor Safety in Living Donor Liver Transplantation Programs.

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Purpose: Living donor liver transplantation (LDLT) is a well-established alternative to alleviate postmortem organ shortage in pediatric liver transplantation. Such program, however, should be performed under strict ethical guidelines, and optimal living donor (LD) safety. In spite of left lobe or left lateral liver resection are very standardized surgical procedures in pediatric LDLT programs with minimal morbidity and almost no mortality, we hypothesized that serious unexpected peri-operative medical and/or surgical events during LD procedure indeed occur in a high volume LDLT center, being a major threat to donor safety.

Methods: From July 1993 to October 2018, 433 paediatric LDLT were performed in our institution under a very strict ethical and clinical protocol. LD medical records were retrospectively reviewed searching for preoperative donor data, surgical and outcome and the occurrence of perioperative near-miss events (NME). NME was defined as any potentially perioperative harmful event that was identified and controlled before definitive patient or recipient harm has happened.

Results: There was no mortality in our series. Morbidity consisted mainly in cut-surface collections, transient pleural effusions, in less than 3% each and few incisional hernias. Eight (1,8%) intraoperative NME occurred in LDs: accidental vena cava clamp releasing, left hepatic artery (HA) clip sliding both resulting in massive intraoperative bleeding, donor right HA ligation and section, accidental section of left HA at liver graft hilum, tension pneumothorax during right subclavian vein catheterization, LD intravenous full-heparinization before left portal vein clamping, section of donor common hepatic duct, injury of segment II bile duct at the graft cut surface. NME management consisted in: vascular control of intraoperative bleeding and microsurgical repair of arterial lesions, pneumothorax drainage, intravenous protamine administration, Roux-en-Y hepaticojejunostomy reconstruction, repair of segment II bile duct injury at back-table. None of these NME resulted in postoperative morbidity.

Conclusions: Despite our minimal morbidity and no mortality rates, unexpected potentially life-threatening intraoperative events occurred in our 433 left lobe hepatectomies. 8 serious and potential harmful NMEs were identified in this series. All NME were timely recognised and controlled without subsequent donor or recipient lasting harm. NMEs systematic debriefing led to safety refinements in our LD protocol. Systematic record of LD/NME may be used as quality control tool to assess donor safety in LDLT programs.

CITATION INFORMATION: BONACCORSI-RIANI E., Daudré-Vignier V., Ciccarelli O., Coubeau L., Iesari S., Tambucci R., De Magnee C., Pire A., Reding R. Near-Miss Events during Donor Left Liver Lobe Hepatectomy: A Potential Quality-Control to Assess Donor Safety in Living Donor Liver Transplantation Programs *Am J Transplant.* 2019;19(suppl 3).

DISCLOSURES: E. Bonaccorsi-riani: None. V. Daudré-Vignier: None. O. Ciccarelli: None. L. Coubeau: None. S. Iesari: None. R. Tambucci: None. C. De Magnee: None. A. Pire: None. R. Reding: None.

Abstract# B338

Novel Cell-Free and Concentrated Ascites Reinfusion Therapy for Management of Refractory Ascites in Liver Transplant Candidates.

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Purpose: Refractory ascites at perioperative period in liver transplantation (LT) is associated with the increased morbidity and mortality. The aim of this study is to investigate the efficacy and safety of novel cell-free and concentrated ascites reinfusion therapy (KM-CART) for the treatment of refractory ascites in LT candidates.

Methods: Total 44 times of KM-CART were performed for the 8 LT candidates at our hospital between September 2017 and November 2018. We investigated the safety and effectiveness of KM-CART regarding the processed ascites, the adverse events, the lab data, and the use of blood products.

Results: By using KM-CART, 11.3 L (2.6 L - 26.1 L) of ascites were filtrated and concentrated to 0.5 L (0.1 L - 1.6 L) in 59.5 min (8 min - 187 min). Final products contained 22.1 g (2.5 g - 65.5 g) of albumin and 17.7 g (1.5 g - 61.8 g) of globulin. No endotoxin contamination was detected in the ascites. Although the incidence of adverse event was 36.4% (including fever, hypotension, bleeding, leg cramps, and nausea), all of these could be treated conservatively. Body weight, oral intake was significantly improved after KM-CART. Furthermore, the use of fresh frozen plasma for the LT recipients with KM-CART was significantly lower than that for patients without KM-CART. In addition, no patients lost their opportunity for LT because of adverse events by KM-CART.

Conclusions: KM-CART was effective and safe procedure for the treatment of refractory ascites in LT candidates. These results would provide the foundation for further large-scale prospective studies.

CITATION INFORMATION: Sato K., Ohira M., Imaoka Y., Hashimoto S., Tahara H., Ide K., Kobayashi T., Tanaka Y., Ohdan H. Novel Cell-Free and Concentrated Ascites Reinfusion Therapy for Management of Refractory Ascites in Liver Transplant Candidates *Am J Transplant.* 2019;19(suppl 3).

DISCLOSURES: K. Sato: None. M. Ohira: None. Y. Imaoka: None. S. Hashimoto: None. H. Tahara: None. K. Ide: None. T. Kobayashi: None. Y. Tanaka: None. H. Ohdan: None.

Abstract# B339

Risk Factors for Post-Transplant Outcomes in Living and Deceased Donor Liver Transplantation. An Analysis of UNOS Registry.

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Purpose: The Model for End-Stage Liver Disease (MELD) score has been used for predicting waitlist outcomes in patients with cirrhosis. However, the post-transplant prognostic value of MELD scores considered limited. We hypothesized that there would be populations which might not be suitable for LDLT and comparing risk factors in living and deceased donor LT (LDLT and DDLT) would provide useful selection criteria to avoid futile LDLT. In this study, we aimed to identify unique risk factors for poor post-transplant outcome in LDLT and DDLT and assess post-transplant prognostic value of the MELD score in LDLT.

Methods: This study used data from United Network for Organ Sharing (UNOS) STAR file and included adult (≥ 18 years old) recipients who received LT from 2011 to 2018 (LDLT, n=1515; DDLT, n=39802). We stratified recipients by MELD score at LT into the following groups: 6-11, 12-14, 15-19, 20-24, 25-29, 30-34, 35-39, ≥ 40 . Risk factors for one year-graft survival were analyzed based on the LT donor types by using a multivariate Cox's regression model.

Results: In DDLT, one year-graft survival in patients with MELD scores ≥ 30 was significantly worse than that of patients in any other group with MELD scores ≤ 29 . In LDLT, because there were only 24 patients with MELD ≥ 30 , we could not analyze its prognostic effect. There was no significant difference between 5 score groups with MELD scores ≤ 29 both in DDLT and LDLT. Multivariate analysis revealed that recipient BMI < 18.5 , black race, moderate/severe encephalopathy, donor age > 50 years were associated with poor graft survival both in DDLT and LDLT. Moderate/severe ascites was an independent risk factor in LDLT; whereas recipient age ≥ 50 , recipient BMI > 40 , poor functional status, recipient diabetes, dialysis requirement, cold ischemia time, and donation after cardiac death donor were independent risk factors in DDLT.