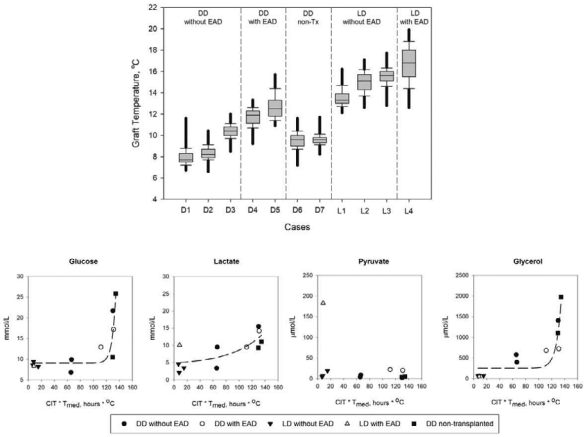
Results: The median graft temperatures were significantly higher than the target value of 4°C and varied widely (LD: 13.4–16.8°C; DD: 7.7–12.4°C). The temperatures of DD grafts with normal initial function were significantly lower than those in grafts with early allograft dysfunction (8.5°C (range, 6.6–12.0°C) vs. 12.1°C (range, 9.2–15.7°C), $p = 0.005$). Only Glyc was significantly different between DD and LD grafts (723 μmol/L (range, 397–1973 μmol/L) vs. 70 μmol/L (range, 53–75 μmol/L), $p = 0.006$).
The associations between [cold ischemia time * graft temperatures] and metabolic parameters (Glucose, Lactate, Pyruvate, and Glycerol) were investigated. The dotted lines on the graphs are the best results of dynamic fitting using the equation: f = y0+a*exp (b*x). The R2 values for Glu, Lac, and Glyc were 0.80, 0.60, and 0.81, respectively.



Conclusions: Not only the CIT but also the graft temperature affects the state of metabolism and initial function. Thus, temperature monitoring combined with microdialysis can be used for assessing graft quality and improving static cold storage technology.
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POS314 LIVER DONOR BOARDING PASS FOR USING THE MACHINE PERFUSION

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It has been worldwide showed that the machine perfusion (MP) offers many benefits in liver transplantation, but it has still some grey area: costs are still high, not all perfused grafts are implanted, the discard frequency after MP preservation can be up to 12% and it is still reported PNF and EAD rate that might be patient life threatening. The aim of the study is to assess the donor risk factors of grafts, perfused with whatever MP, that would predict an ineffective MP setting up and those would trigger a EAD post-transplant.
Data from donors of all MP-perfused grafts have been analysed, whether they were implanted or discarded after perfusion. First endpoint was the negative events after perfusion (NegE), that is the number of grafts discarded plus those were implanted but lost after the transplant. A risk factor analysis was performed for NegE and marginal grafts for MP were identified. Finally, the risk of EAD was investigated, considering only implanted grafts.
From 2015 to September 2019, 158 grafts were perfused with MP: 151 grafts were implanted and 7 discarded. Of 151, 15 grafts were lost after transplant, therefore, the NegE group was of 22 donors. In the univariate analysis, the donor risk index>1.7, the presence of hypertension in the past medical history, the S-CIT and the moderate or severe macro-vesicular steatosis were the significant factors for NegE. The multivariate analysis confirmed the macro-steatosis>30% as an independent risk factor for NegE (odd ratio 5.643, $p = 0.023$, 95%CI : 1.27–24.98).
Of 151 transplanted patients 34% of recipients experienced a EAD and had a worse 1- &3-year-survival, comparing with those who don't faced with EAD (NoEAD), respectively 96% & 96% for EAD vs. 89% & 71% for NoEAD, $p = 0.03$. No one of the donor/graft characteristics was associated to EAD even if the graft was form aged donor, or moderately steatotic or fibrotic or with elevated transaminase.
For the first time, this study shows that macro vesicular steatosis > 30% might be a warning factor involved in graft lost risk or a graft discard cause after the MP treatment. From the other side, the MP seems to be useful to reduce the donor and graft weight in developing a EAD. More studied needed to investigate other EAD factors to better prevent this fatal complication.

POS315 PERIOPERATIVE RISK FACTORS OF ACUTE KIDNEY INJURY POST LIVER TRANSPLANTATION: A MONOCENTRIC RETROSPECTIVE COHORT STUDY OF 260 PATIENTS

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Aims and Background: Acute kidney injury (AKI) is a major risk factor of poor outcomes after liver transplantation (LT). AKI is usually attributed to post-LT events and drug toxicity. Peri-operative risk factors of LT-associated AKI remain poorly documented, which hampers the development of personalized preventive strategies.
Methods: AKI was assessed by KDIGO criteria based on creatinine changes from baseline to day 5 post LT. 260 single first full-size LTs without any pre-existing renal replacement therapy (RRT) were performed from 2003 to 2018. Incidence of AKI was assessed. Logistic regression determined the risk factors of KDIGO I and II-III AKI.
Results: Incidence of AKI KDIGO I and II-III was 30% (78/260) and 25.7% (67/260), respectively. Preoperatively, patients with AKI had higher lab-MELD and Child-Pugh scores, lower serum fibrinogen and albumin levels. Donor type, donor hepatectomy and cold ischemic time were similar between groups. AKI was more frequent in case of marginal donors. LT surgery was longer in the AKI groups. Needs for per-operative blood transfusions were higher in the AKI groups. Rate of post-reperfusion syndrome was higher in AKI groups. Postoperatively, lower hemoglobin levels and higher INR from day 1-5 were associated with AKI. Peak of transaminases were not different between AKI versus non-AKI groups. AKI was associated with longer length of hospital and ICU stays. After multivariate analysis, blood transfusions and post-reperfusion syndrome were risk factors to develop KDIGO I AKI. Pre-operative serum levels of fibrinogen and albumin were risk factors for KDIGO II-III AKI. Finally, "marginal donors" was the only risk factor for both KDIGO I and II-III AKI.
Conclusions: LT-associated AKI occurs in >50% of cases. Per-operative hemorrhage and post-operative reperfusion syndrome represent risk factors, particularly in cases of marginal donors.

POS316 EX-VIVO LIVER SPLITTING DURING HYPOTHERMIC OXYGENATED PERFUSION : A NOVEL PROCEDURE TO OPTIMIZE GRAFT PRESERVATION IN SPLIT LIVER TRANSPLANTATION

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Background: Split liver transplantation increases organ availability. However, split grafts from deceased donors have prolonged ischemic times leading to inferior outcomes compared to whole grafts. Hypothermic