

Christian Toso: ILTS Prague Commentary

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Concurrent Oral Abstract Session: Patient Selection and Organ Recovery

Chairs: John O'Grady, Jaroslav Chiupac

O-102 Increasing Liver Transplant Waitlist Dropout for Hepatocellular Carcinoma with Widening Geographical Disparities: Implications for Organ Allocation

Neil Mehta, San Francisco, United States

- This study, based on UNOS data, suggests that the risk of drop-out for HCC patients has increased greatly in the US in the recent years, and especially so in long wait-time regions. This data promotes creating regions with more homogeneous waiting times throughout the country, or tailoring exception MELD points according to wait time.

O-103 Liver Transplantation for HCC Patients with High AFP Level – How to Select?

WC Dai, Pokfulam, Hong Kong

- This retrospective study of 330 patients transplanted for HCC demonstrated that AFP (< vs. >400) can predict post-transplant overall and disease-free survival.

O-104 Outcome of Liver Transplant Recipients after the First Episode of Bacterial Infection

Alberto Ferrarese, Padua, Italy

- Single-center retrospective cohort study of 114 patients experiencing a bacterial infection on the waiting list, and match to 762 patients without infection (using propensity). SBP was the most common infection. Infection is associated with an increased short-term risk of death. Once having recovered, patients with infection did not show an increased risk factor of death on multivariate analysis.

O-105 The Objective Liver Frailty Index Significantly Improves the Clinician “Eyeball Test” to Predict Mortality in Liver Transplant Candidates

Jennifer Lai, San Francisco, United States

- The Liver Frailty Index (grip strength, chair standing strength, balance testing) helps predicting the risk of death on the waiting list independently of MELD. Compared to the subjective assessment by hepatologists (1 to 5), the risk of death on the waiting list was better predicted using the Frailty index in 529 patients (and even more so when combining both with a c-statistics of 0.74).

O-106 Association of Cardiac Structural Abnormalities to the Frail Phenotype in Liver Transplant Candidates: From the Functional Assessment in Liver

Transplantation (FrAILT) Study

Lorena Puchades, Valencia, Spain

- Frailty index correlates with the cardiac structural and functional impairments on TTE (including left chamber measurement, ejection fraction) in a cohort of 374 patients.

O-107 Normothermic Regional Perfusion (NRP) Improves Outcomes after Liver Transplantation from cDCD Donors

Gabriel Oniscu, Edinburgh, United Kingdom

- In Scotland, livers of DCD donors are not used as often as in other part of the country. In order to improve this issue, a team has been flying with a machine in 45 donors in order to perform regional perfusion (similar to ECMO). Comparing a subgroup of 14 patients with NRP and 45 standard DCD, NRP was associated with lower post-transplant ALT, no cholangiopathy (vs 24% in the standard DCD group), no primary non-function (vs. 4 in the standard DCD group), and better graft survival ($p < 0.05$). In the audience, a member from the Bilbao team confirms similarly good results at his institution.

O-108 Human Liver Transplantation after Normothermic Machine Perfusion (NMP), the First Report in the United States

Qiang Liu, Cleveland, United States

- Phase 1 trial of liver graft NMP of 2 to 18 hours prior to transplantation, with perfusion of both the artery and the vein. After 10 transplantations, including 2 DCD, only one patient demonstrated early allograft dysfunction (one of the two transplants from DCD).

O-109 The Impact of Hypothermic Oxygenated Perfusion on Liver Viability Tested during Normothermic Machine Perfusion

Yuri Boteon, Birmingham, United Kingdom

- Study of 10 discarded livers on HOPE (6 h) followed by NMP (2h, $n=5$) vs. on NMP (6h, $n=5$). HOPE effectively recharged cell energy, and increased the number of viable cells. The author suggests that both strategies could be combined in the future.

O-110 Repair on the Pump: Effective Delivery of Mesenchymal Stromal Cells (MSCs) to Liver Grafts during Isolated Machine Perfusion

Monique M.A. Verstegen, Rotterdam, Netherlands

- The study infused GFP-expressing human MSCs into six pig livers on HOPE. The engraftment was similar with injection into the portal vein vs. the artery (yet a bit better through the artery). After one hour of HOPE, the engraftment appeared stable (as assessed by qPCR). Answering to a question, the author proposes to infuse donor MSCs into the liver graft prior to transplant.