*Continued*

| Recipient, Age / Gender / MELD-Na | Donor Age / Gender / Cold Ishemia Time (h) | Initial graft function/7 d Graft status | iLAC : iPYR after 6 h – 12 h – 24 h after LT | iLAC : iGLU after 6 h – 12 h – 24 h after LT |
|---|---|---|---|---|
| F.N., 64 / F / 19 | | | | |
| M.M., 66 / M / 12 | 40 / M / 9 | EAD / Func | 85 – 37 – 19 | 1.6 – 1.7 – 0.8 |
| G.A., 41 / M / 17 | 61 / M / 11 | PNF / Loss | 322 – 984 – 2087 | 6 – 385 – 622 |
| I.V., 45 / M / 16 | 42 / M / 9 | Normal (before HAT) / - | 26 – 21 – 18 | 0.7 – 0.6 – 0.5 |
| I.V. | - | - / Loss – HAT on day 2 | 36 (44 h) – 579 (48 h) – 2492 (51 h) | 3 (44 h) – 11 (49 h) – 362 (51 h) |

**Conclusion:** Monitoring of intragraft glucose and its metabolites concentrations is a powerful method for IGF assessment and vascular complications diagnosis early after LT. For the development of accurate microdialysis-based IGF criteria more cases are needed.

## BOS028 THE SYNTHESIS OF COAGULATION FACTORS DURING NORMOTHERMIC MACHINE PERFUSION OF LIVERS IS IMPAIRED BY ISCHEMIA IN PIGS AND MIGHT PREDICT GRAFT VIABILITY

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**Background:** Normothemic Machine Perfusion (NMP) allows liver viability assessment. Coagulation Factors (F) are synthetized by the liver and are candidate markers of function of hepatocytes (FV, FVII, FIX, FX) and sinusoidal endothelial cells (FVIII). We investigated if coagulation factors discriminate functioning and injured livers during NMP.
**Methods:** Porcine livers underwent 6 h NMP after no (WI0, n = 5) or 60 min Warm Ischemia (WI60, n = 5). FV, FVII, FVIII, FIX, FX, aspartate transferase (AST), bile production lactate (Lac), Hyaluronic Acid (HAc), Vena Portae (VP) and Hepatic Artery (HA) resistance were measured during NMP. The synthesis of coagulation factors was investigated within-groups with repeated measures ANOVA, between-groups with Student's T test, and correlated with markers of injury/function of hepatocytes (AST, bile production, Lac) and sinusoidal endothelial cells (HAc, VP, and HA resistance) with Kendall-tau.
**Results:** Coagulation factors concentration increased during NMP in both groups ($p < 0.05$); however, WI60 synthetized less factors than WI0 ($p < 0.05$). FV, FVII, FIX, and FX correlated inversely with AST ($p < 0.0001$), positively with bile production ($p < 0.05$), and negatively with Lac ($p \leq 0.0001$). FVIII was inversely correlated with HAc ($p = 0.008$), VP ($p = 0.002$) and HA resistance ($p = 0.13$). Notably, FV and FVIII discriminated functioning and injured grafts within 1 h NMP. Grafts producing the highest amount of FV at 1 h NMP released the lowest quantity of AST ($\tau$:-0.93, $p = 0.001$) and had the lowest Lac concentration ($\tau$:-0.51; $p = 0.04$). Similarly, livers producing the highest amount of FVIII at 1 h released the least quantity of HAc ($\tau$:-0.58, $p = 0.02$).
**Conclusions:** The synthesis of coagulation factors during NMP is reduced by ischemic injuries in pigs. Coagulation factors are promising markers of function of hepatocytes and sinusoidal cells discriminating between functioning and injured grafts early during NMP and should be further investigated in human studies.

## BOS029 A SINGLE CENTER EXPERIENCE WITH 157 CONTROLED DCD-LIVER TRANSPLANTATIONS

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**Introduction:** Donation after circulatory death (DCD) have been proposed to partially overcome the organ donor shortage. DCD-LT remains controversial, with reported increased risk of graft loss and retransplantation. The authors retrospectively reviewed a single centre experience with controlled DCD-LT in a 15-year period.
**Patients and Methods:** 157 DCD-LT were consecutively performed between 2003 and 2017. All donation and procurement procedures were performed as controlled DCD in the operating theatre. Data are presented as median (ranges). Median donor age was 57 years (16–83). Median DRI was 2.242 (1.322–3.554). Allocation was centre-based. Median recipient MELD score at LT was 15 (6–40). Mean follow-up was 37 months. No patient was lost to follow-up.
**Results:** Median total DCD warm ischemia was 19 min (7–39). Median total ischemia was 313 min (181–586). Patient survivals were 89.8%, 75.5% and 73.1% at 1,3 and 5 years, respectively. Graft survivals were 89%, 73.8% and 69.8% at 1,3 and 5 years, respectively. Biliary complications included mainly anastomotic strictures, that were managed either by endoscopy or hepatico-jejunostomy. Two patients were retransplanted due to intrahepatic ischemic lesions.
**Conclusion:** In this series, DCD LT provides results similar to classical LT. Short cold ischemia and recipient selection with low MELD score may be the keys to good results in DCD LT, in terms of graft survival and avoidance of ischemic cholangiopathy.

## BOS030 EXPANDING CRITERIA FOR EARLY LIVER TRANSPLANTATION IN SEVERE ALCOHOLIC HEPATITIS

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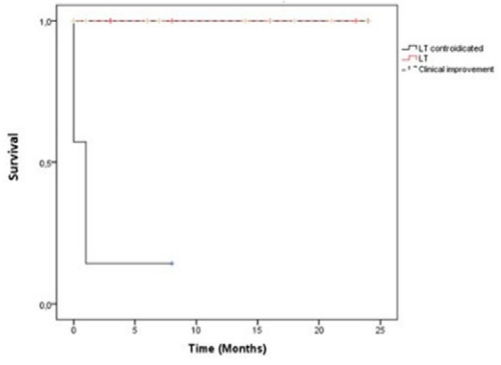
**Background:** In 2011 Mathurin et al showed that early liver transplant(eLT) dramatically improves survival in highly selected patients with severe alcoholic hepatitis(SAH). Recently, a real life US multicenter study demonstrated that eLT can be successfully performed also in patients fulfilling less stringent selection criteria. Where the limits of expanded criteria should be set and how much the percentage of patients with SAH eligible for LT could be increased is unknown.
**Methods:** In January 2016 a program of eLT for SAH was started at the Niguarda Hospital of Milan. Corticosteroids(CS) were not used in case of infection, malnutrition or bleeding. A dedicated team performed an accurate psycho-social evaluation and monitoring pre and post-LT.
**Results:** Twenty-eight consecutive cirrhotic patients at first episode of SAH were identified. Twelve patients with median baseline Maddrey score(MS) 73 and MELD-Na 26(43%) improved with or without CS. MELD-Na decreased to 19 after 1 month. None died after a median follow up of 13(1–32) months. The remaining 16 patients(57%) were evaluated for eLT. Seven patients with median baseline MS 91 and MELD-Na 33 were excluded from eLT: 2 for uncontrolled psychiatric disease, 1 due to cardiologic contraindication and 4 because 'too sick for transplant'. All but 1 died. Finally, 9 patients underwent LT, 3 after unsuccessful CS therapy(median Lille score 0.9). Their median MF and MELD-Na at admission were 104 and 32 respectively. Median time between admission and listing was 19 days; LT occurred on average days 8 after listing in all but 1 case who waited 94 days. Median MELD-Na at LT was 30. All patients undergoing LT are alive after a median follow up of 16(3–29) months. To date none relapsed alcohol use.
**Conclusions:** eLT was feasible and effective in almost 50% patients with SAH not responding to medical therapy, with a 1-year survival of 100%.Stringent psycho-logical support pre and post LT was crucial to avoid alcohol recidivism.




| | | | | | | |
|---|---|---|---|---|---|---|
| LT controindicated | 7 | 1 | 0 | 0 | 0 | 0 |
| LT | 9 | 7 | 5 | 5 | 4 | 3 |
| Clinical improvement | 12 | 9 | 7 | 5 | 3 | 2 |