

LIVER: COMPLICATIONS, RECURRENT DISEASE, HEPATITIS AND RETRANSPANTATION

Patients without baseline native cysts

Baseline Characteristics	Patients who developed acquired cysts (native kidneys)n=40	Patient with no cysts (native kidneys)n=160	p value
Age	50.8 ± 12.3	43.7 ± 1.0	0.002
Sex(women)-no.(%)	14(35.0)	72(45.0)	0.25
Race-no.(%)			0.01
Hispanic/white	14(35.0)	98(61.6)	
African American	20(50.0)	46(28.9)	
Other	6(15.0)	15(9.4)	
Cause of ESRD-no.(%)			0.26
DM	15(39.5)	36(23.8)	
HTN	12(31.6)	41(27.2)	
FSGS	4(10.5)	14(9.3)	
GN	3(7.9)	25(16.6)	
OTHER	4(10.5)	35(23.1)	
Transplant Type-no.(%)			0.28
Cadaveric	28(70.0)	93(58.1)	
Living	12(30.0)	67(41.9)	

Liver: Complications, Recurrent Disease, Hepatitis and Retransplantation

Abstract# 736

Poster Board #-Session: P156-I

Liver Transplantation Using Cavo-Portal Hemitransposition in Case of Complete Splanchnic Venous Thrombosis. D. Monbaliu,¹ E. Bonaccorsi,² T. Darius,¹ O. Ciccarelli,² R. Aerts,¹ Z. Hassoun,² W. Laleman,¹ C. Verslype,¹ F. Nevens,¹ J. Pirenne,¹ J. Lerut.² ¹University Hospitals, Leuven, Belgium; ²UCL Saint-Luc, Brussels, Belgium.

Introduction: Portal vein (PV) thrombosis is no longer a contraindication to liver transplantation (LT) when adapted surgical techniques (e.g. thrombectomy, vascular interposition grafts, anastomosis to a PV collateral) can be used. In contrast, complete/extensive venous splanchnic system thrombosis cannot be managed by these techniques and the short-term prognosis is very poor. Multi-visceral transplantation is a possible treatment option in these patients, but a technically/immunologically high-risk procedure. Cavo-portal hemi-transposition (CPHT) can be performed, establishing portal perfusion via recipient caval flow. Data on CPHT (<70 cases reported) and long-term outcome remain scarce.

Aim: To analyse the results after LT with CPHT at 2 LT centers.

Methods: CPHT was performed in 9 (0.57%) out of 1568 LT done between 02/1984-09/2009 [4 females/5 males; median age 44 (32-71); 4 BuddChiari, 1 reTx/chronic rejection, 1 cryptogenic cirrhosis, 1 HCV cirrhosis, 1 hepatic failure, 1 FAP]. All had complete chronic (intraoperatively confirmed) splanchnic thrombosis associated to advanced liver failure and major portal hypertension. Recipient caval flow was completely diverted into the allograft PV using end-to-end (4/9) or end-to-side cavo-portal anastomosis (5/9). An interposition graft (iliac vein) was necessary in 3 patients.

Results: Immediate graft function was adequate in all recipients. One patient developed PV thrombosis due to an anastomotic stricture treated by angioplasty. Surgical re-interventions were done for upper GI bleeding (splenectomy, n=2) and for arteriolar bleeding (n=1) at the biliodigestive anastomosis in the context of a late CPHT stenosis treated by angioplasty. Patient survival is 100% and 45% at 3 and 60 months, respectively. One patient died at 3 months due to biliary leak, one at 25 months due to recurrent HCC, one at 49 months due to intracranial bleeding, and 2 patients died at 2 and 14 months due to multiple organ failure. All 4 survivors display satisfactory liver/gut function at last follow-up (median:99 months; range:39-111).

Conclusion: CPHT represents a valid salvage procedure providing excellent early-graft-function and acceptable 5-years survival (45%) in patients with diffuse splanchnic thrombosis not amenable to conventional LT. CPHT avoids a technically/immunologically more challenging multi-visceral transplantation.

Abstract# 737

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Liver Transplant Recipients Experience Persistent Depression and Cognitive Impairment at Three and Twelve Months Post-Transplant.

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Background: The incidence of moderate to severe long-term neuropsychological dysfunction after liver transplantation in patients with stable liver function is not known.

Methods: In this prospective cohort study, we examined the neuropsychological outcome of 38 liver transplant patients using the Beck Depression Inventory II (BDI-II) and Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) at 3 and 12 months post-liver transplant.

Results: At enrollment (data reported as median and interquartile range), the MELD was 22 (16,26), age was 56 (51,60), education was 12 (12,14) years, Sequential Organ Failure Assessment score (SOFA) was 16 (14, 19) and APACHE II score was 26 (24, 32). A median Short IQCODE (Informant Questionnaire for Cognitive Decline in the Elderly) was 3.2 (3.0-3.3) suggested an absence of pre-existing cognitive impairment. At baseline, 26% of patients had a remote history of depression or alcoholism. At 3-month follow-up, 23 (88%) of 26 eligible patients were assessed. Of these, 17% had moderate to severe depression on the BDI-II, and 35% had borderline to extremely low cognitive function on the RBANS. At 12-month follow-up, 12 (75%) of 21 eligible patients were assessed. Of these, 25% had moderate to severe depression, and 45% had borderline to extremely low cognitive function. Multiple cognitive domains were affected, with visuospatial/construction deficits most pronounced.

Conclusions: In these liver transplant patients with stable graft function, 1 in 4 had clinically significant depression and nearly half had borderline to extremely low cognitive function at 12 months follow-up. These deficits may have negative implications for medication and protocol compliance as well as quality of life.

Abstract# 738

Poster Board #-Session: P158-I

Hepatic Steatosis Predicts Risk of Advanced Fibrosis in Liver Transplant (LT) Recipients with Recurrent Hepatitis C Virus (HCV).

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BACKGROUND: Recurrent HCV is the most common cause of graft loss among HCV-infected LT recipients. Diabetes (DM) has been associated with increased rates of fibrosis progression but whether steatosis affects post-LT outcomes, especially in the absence of DM, is unclear. **AIMS:** To determine the prevalence of hepatic steatosis in LT recipients with HCV and whether steatosis within the first year (yr) post-LT predicts severity of fibrosis.

METHODS: LT recipients with HCV from 03/2002 to 12/2007 with a liver biopsy at 12 (+6) mos post-LT were included. 1-yr liver biopsies were assessed for presence of steatosis (≥5%) and NASH activity score. Advanced fibrosis was present if this biopsy or subsequent biopsies were Ludwig-Batts stage ≥2 (out of 4). Factors associated with steatosis were determined by logistic regression, and steatosis at 1 yr post-LT was evaluated as a predictor of fibrosis in multivariate Cox models.

RESULTS: Of the 315 LT performed during the study period, 173 patients met inclusion criteria; median (range) follow-up was 3.9 (0.73-7.19) yrs; median time (range) from biopsy assessed for steatosis to biopsy assessed for fibrosis was 1.89 (0-6.18) yrs. Steatosis was present in 52 (30.1%); only 1 patient met criteria for NASH. Presence of post-LT steatosis was positively associated with genotype 3 (OR 2.23, p=0.088) and new-onset DM (OR 2.23, p=0.088), but neither reached statistical significance. At 3 yrs post-LT, the cumulative rate of ≥2 fibrosis was 52% vs. 38% in those with vs. without steatosis (p=0.003). Steatosis was an independent predictor of F2-4 fibrosis (Table) and was a stronger predictor of fibrosis in non-DM (HR 2.71, p=0.023) than in DM subjects (HR 1.73, p=0.221) and in sirolimus-exposed (HR=8.31, p=0.012) than unexposed (HR=1.52, p=0.226).

CONCLUSION: Steatosis is frequent in post-LT HCV-infected patients and associated with a higher rate of advanced fibrosis, particularly in individuals without DM and those with sirolimus exposure.

Multivariate Models of F2-4 Fibrosis*

	HR	95% CI	p value
Steatosis	2.18	1.21, 3.95	0.01
DM	1.91	1.07, 3.43	0.029
Genotype 3	0.23	0.07, 0.74	0.014
Sirolimus	3.20	1.20, 8.45	0.019
CMV infection	4.02	1.77, 9.13	0.001

*Variables evaluated but not significant were recipient age, race, gender, dyslipidemia, donor age, NAS.

Abstract# 739

Poster Board #-Session: P159-I

Risk Factors of Intraoperative Complications during Donor Hepatectomy in Living-Donor Liver Transplantation. Arash Pirat,¹ Adnan Torgay,¹ Aytekin Unlukaplan,¹ Hamdi Karakayali,² Gulnaz Arslan,¹ Mehmet Haberal.² ¹Anesthesiology, Baskent University, Faculty of Medicine, Ankara, Turkey; ²General Surgery and Transplantation, Baskent University, Faculty of Medicine, Ankara, Turkey.

The aim of this study was to evaluate the predictors of intraoperative complications during donor hepatectomy for living-donor liver transplantation (LDLT). We reviewed the data of 182 consecutive LDLT patients who underwent lobectomy between May 2002 and September 2008. Intraoperative complications such as hypotension (more than 20% decrease from the baseline), hypertension (more than 20% increase from the baseline), arrhythmia, hypoxemia (oxygen saturation < 90%), hypothermia (esophageal temperature < 35.5°C), and need for transfusions were collected using anesthesia and patient charts.