

protease inhibitor and promotes degradation of serine proteases, mainly neutrophil elastase thereby limiting the damage to normal tissue after an inflammatory response.

A1A deficiency also leads to liver failure in some adult patients requiring liver transplant (LTx). A1A deficiency is corrected post LTx, however the changes in pulmonary functions post LTx have not been studied before.

Aim: To observe the changes in the pulmonary functions of the patients who underwent LTx for A1A deficiency.

Patient and Methods: 9 patients underwent LTx for A1A deficiency. Out of 9 patients, 6 patients (5 males, 1 female, mean age 54.7 ± 6.7) had their Pulmonary Function Tests (PFTs) available pre and post LTx for comparison.

Results: Mean pre-transplant FEV1 was 2.78±0.82L (obtained 1 to 10 months pre LTx) which was 2.91±0.93L 6 to 48 months post LTx. Other PFTs parameters are shown below in the table.

No	Age	Gender	PreLtx FVC PostLtx		PreLtx FVC PostLtx		PreLtx FEV1 PostLtx		PreLtx FEV1 PostLtx		PreLtx FEV1/FVC PostLtx	
			PreLtx	PostLtx	PreLtx	PostLtx	PreLtx	PostLtx	PreLtx	PostLtx	PreLtx	PostLtx
1	61.8	F	2.21	71	1.71	1.53	73	63	77			
2	57.8	m	5.43	5.27	1.11	1.16	3.9	3.85	108	103	72	72
3	54.5	m	3.8	3.36	74	64	2.14	2.15	51	52	55	64.1
4	42.3	m	3.77	5.6	78	115	2.47	3.64	70	99	71	69%
5	53.5	m	3.96	4.37	73	82	2.73	2.7	63	62	69	62
6	50.2	m	5.11	4.77	89	83	3.54	3.22	85	80	69	69
Mean	54.7		4.06	4.65	82.50	92.00	2.78	2.91	75.00	76.50	68.83	83.56
SD	6.7		1.34	0.69	15.22	22.75	0.82	0.93	19.69	21.84	7.39	29.82
Median	56.2		3.91	4.77	76.00	83.80	2.73	3.01	71.50	71.50	70.00	84.39

Based on registry data of over 1129 patients, FEV1 declined from 54/ml/year to 84/ml/year when measured separately per year. Based on the information, a loss of 162 to 252 ml over mean of 3 years would be expected.

Conclusion: It appears that LTx probably prevented the progression of the pulmonary disease but failed to reverse it. However further study and close post LTx follow is warranted to support our initial findings.

Abstract# P-116

INDICATIONS OF LIVER TRANSPLANTATION FOR POLYCYSTIC LIVER DISEASE: ABOUT 16 CASES AT A SINGLE INSTITUTION. G. Pascal, D. Azoulay, R. Adam, D. Samuel, D. Castaing, *Centre Hepato-Biliaire, AP-HP Hopital Paul Brousse, Villejuif, France*

The management of Polycystic Liver Disease (PLD) ranging from observation to Liver transplantation (LT) is still debated. The aim of the present study was to evaluate the respective indications of deroofting and LT for the treatment of PLD.

Patients and methods: Between 1975 and 2006, 59 consecutive patients with PLD were managed at Paul Brousse Hospital : 50 females (85%), mean age : 52 years. Thirty one patients (52%) had an associated Polycystic Kidney Disease. Operative mortality, morbidity and long-term results were analysed.

Results: Surgery was performed in 54 patients (92%) with highly symptomatic PLD : laparoscopic deroofting in 18 patients (33%), open deroofting in 17 (31%), Liver resection in 3 (6%), LT in 16 (30%), combined with kidney transplantation in 11 patients (63%). There was no mortality. After laparoscopic deroofting, there was no conversion and no morbidity. After open deroofting, a complication occurred in 10/17 patients (59%), mainly ascites (6 cases). Long-term results after deroofting was good in 26 patients (74%), poor in the remaining 9 patients who had small cysts for all of them. After Liver transplantation, morbidity was 70% : 6 patients (38%) had a surgical complication, requiring a reintervention for 5 of them. The 5-years survival is 96% (one patient died 5 years after LT of pneumocystosis). All patients recovered an excellent quality of life.

Conclusion: Laparoscopic deroofting must be the gold standard of PLD with large symptomatic cysts. Liver transplantation should be considered as a safe option when the cysts are highly symptomatic, small and extensive.

Abstract# P-117

ADVANCED DONOR AGE IS ASSOCIATED WITH INCREASED BILIARY COMPLICATIONS IN LIVER TRANSPLANT PATIENTS RECEIVING ORGANS DONATED AFTER CARDIAC DEATH. Vikesh K. Singh¹, Ranjan C. Mascarenhas¹, Devi M. Krishnamurthy¹, Zoe Stewart², Andrew L. Singer², Andrew M. Cameron², Ahmet Gurakar¹. ¹Medicine, Division of Gastroenterology & Hepatology, Johns Hopkins Hospital, Baltimore, MD, USA; ²Surgery, Division of Transplant Surgery, Johns Hopkins Hospital, Baltimore, MD, USA

BACKGROUND: Biliary complications are a major source of morbidity among liver transplant recipients. While 5-15% of patients who receive a cadaveric liver transplant develop a biliary complication, a previous report from our institution found that approximately 60% of patients who receive a liver donated after cardiac death develop biliary complications. The risk factors for biliary complications among this group of recipients are not well understood.

AIM: To evaluate risk factors for biliary complications among liver transplant patients receiving organs donated after cardiac death.

METHODS: We evaluated age, gender, donor age, cold ischemia time, and warm ischemia time among patients with and without biliary complications who underwent liver transplantation using an organ donated after cardiac death at Johns Hopkins, between 1997 and 2008. Biliary complications were defined as an anastomotic and/or intrahepatic biliary stricture(s). Bile duct leaks were excluded as they may occur as a result of technical factors. Analysis was performed using t-testing and Chi-square for continuous and categorical variables, respectively. The Kruskal Wallis test was used for the evaluation of nonparametric medians.

RESULTS: A total of 32 patients who received a liver donated after cardiac death were identified. Fourteen patients (44%) had biliary complication(s). Of these, 7 (50%) had anastomotic strictures, 3 (21%) had nonanastomotic strictures, and 4 (29%) had both. The mean donor age was higher among recipients with biliary complications versus those without biliary complications, 39.6±12.9 vs. 29.1±10.8 (p=0.02), respectively. Donor age range was 18-57 years. There were no statistically significant differences between the groups with regards to recipient age, gender, warm and cold ischemia times, and mortality. Among patients with biliary complications, the time to a diagnostic and/or therapeutic ERCP was similar in all groups.

CONCLUSIONS: 1) Livers donated after cardiac death have higher rates of biliary complications than cadaveric donations. 2) Advanced donor age further increases the rate of biliary complications seen in grafts procured from donors after cardiac death.

Abstract# P-118

PRETRANSPLANTATION RENAL FUNCTION AFFECTS SURVIVAL AFTER LIVER TRANSPLANTATION. Vasilis Papanikolaou, Georgios Tsoulfas, George Imvrios, Dimitris Giakoustidis, Nikolaos Antoniadis, Ioannis Fouzas, Evaggelos Akriviadis, Ioannis Goulis, Themistokles Vasiliadis, Eleni Katsika, Andreas Papagiannis, Dionysis Vrochides, Nikolaos Ouzounidis, Achilleas Ntinias, Sofia Iosifidou, Polyxeni Agorastou, Alexandros Giakoustidis, Dimitrios Takoudas. *Transplantation Surgery, Ippokrateio General Hospital, Thessaloniki, Greece*

Background: One of the goals of the MELD system has been to give priority to patients with pre-transplantation renal insufficiency.

Aim: To evaluate the effect of recipient renal function on survival following liver transplantation.

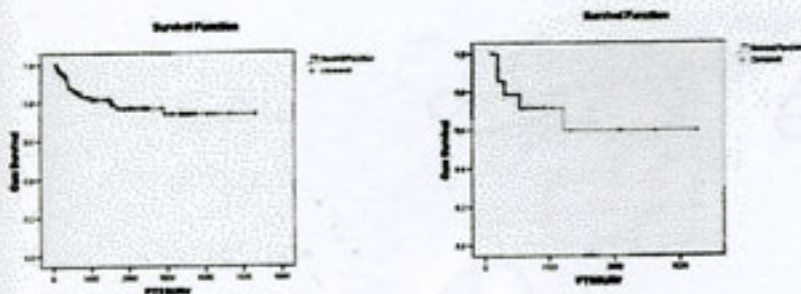
Methods: This is a retrospective study of 138 patients that underwent OLT at a University Transplant Center in Greece during a period of 15 years. The demographic and clinical data of donors and recipients were analyzed. The renal function, pre- and post-transplantation, and survival were compared between the following two groups: group A (123 patients with pretransplant Cr ≤ 1.5) and group B (15 patients with pretransplant Cr > 1.5).

Results: The mean pretransplant Cr value for group A was 0.9, whereas for group B it was 1.8. There were no statistically significant differences between the two groups regarding donor and recipient age, quality of donor based on the DRI and cold ischemia time. One and five year patient survivals were 80% and 78% for group A, whereas they were respectively 70% and 60% for group B (statistically significant differences). There was also a statistically significant difference in the one-year post transplantation Cr level, which was higher in group B at 2.1, versus 1.2 in group A.

Conclusions: The presence of renal dysfunction or renal insufficiency pre-transplantation can affect survival in a negative manner following orthotopic liver transplantation. This raises the question of whether these patients should be considered for combined liver-kidney transplantation.

Cr ≤ 1.5

Cr > 1.5



Abstract# P-119
PERIOPERATIVE MANAGEMENT OF COMBINED HEART LIVER TRANSPLANTATION. Daniel Eyraud^{1,3}, Jean Christophe Vaillant¹, Pascal Lebray², Pierre Coriat³, Alain Pavie⁴, Laurent Hannoun¹. ¹Chirurgie Hépatique et Transplantation, GHPS-APHP, Paris, France; ²Hépto-Gastro-Entérologie, GHPS-APHP, Paris, France; ³Département d'Anesthésie Réanimation, GHPS-APHP, Paris, France; ⁴Chirurgie Cardiaque, GHPS-APHP, Paris, France

Combined Heart and Liver transplantation (CHLT) is an uncommon procedure, with only 47 procedures reported in the United States. Poor exact description of the intra and postoperative procedure and outcomes was reported.

Methods. Three patients received successfully liver /heart transplantation. **Results.** All patients had proved cirrhosis with evidence of portal hypertension, one with renal insufficiency, another with pulmonary hypertension, and clinical signs of cardiomyopathy with reduced ejection fraction. The cardiac transplantation was performed first. After closure of sternum, laparotomy was performed and liver transplantation was performed with total liver exclusion and venovenous bypass.

Three patients received successfully CHLT. Mean cold ischemia for heart and liver was 2H46 min and 12H47 min respectively. All three patients received anti R-II2 antibodies at day 1 and 4 and calcineurin's inhibitors were started as renal function was beginning to restore. Protocol endomyocardial biopsies in all three patients revealed no evidence of rejection. Mean hospital length was 39 days.

Main Postoperative Data

Patient Number	Cardiac Complication	Renal Complication	Postoperative peak of ASAT/ALAT	Postoperative RBCs	ICU LOS (days)	Follow-up (months)
1	No	No	2695/2031	2	9	35
2	No	Yes	1505/1050	0	18	24
3	Yes	Yes	1702/1200	0	20	10

POD: Post operative day LOS: length of stay

In all 3 patients, renal function was better one month after CHLT than before.

CHLT could be performed by consecutive independent operative time. Each surgical team proceeds exactly as he used to. Early chest closure, no early nephrotoxic immunosuppressive treatment, quality of medical and surgical hemostasis and systematically venovenous bypass during liver removing were important management choices.

Abstract# P-120
IMPACT OF MELD ALLOCATION SYSTEM ON THE OUTCOME OF CADAVERIC ADULT LIVER TRANSPLANTATION IN A SOUTHERN STATE OF BRAZIL. Mauro R. Igreja, Julio C. Wiederkehr, Marcelo S. Nogara, Nelson D. Souza. *Liver Transplantation, Hospital Santa Isabel, Blumenau, Santa Catarina, Brazil*

Allocation of livers for transplant based on the MELD score of the recipient was adopted in Brazil after 2006. The present study analyzes the impact of the new allocation system in patients submitted to cadaveric liver transplant at Hospital Santa Isabel, Blumenau, Brazil. From August 2002 through December 2007, 163 patients received primary cadaveric liver transplantation. The patients were divided in two groups, before and after MELD based allocation system. MELD score was calculated at the time of inclusion on the

list in both groups. Operative time, number of days in the ICU, time of assisted ventilation required, total time of hospitalization, blood products transfusion, hemodialysis, and survival were compared in both groups.

	Before	After	p value
n	78	85	
HCV	38	42	0.97
HCC	4	14	0.04
Operative time (min)	319	301	.13
ICU time (days)	5.25	4.74	0.48
Ventilation (days)	2.31	2.52	0.70
RBC	10.44	9.21	0.36
Platelets	11.53	11.59	0.97
Cryoprecipitate	3.68	1.79	0.05
FFP	12.06	9.1	0.03

The survival in the group before implementation of MELD system was 89%, and after was 81% (p=0.28). Of the variables analyzed, the presence of HCC as indication for liver transplantation (p=0.04), cryoprecipitate (p=0.05), and fresh frozen plasma (p=0.03) were statistic significantly before and after MELD score system implementation. No impact on the survival after liver transplantation was observed with implementation of MELD score system for allocation of cadaveric livers.

Abstract# P-121
300 LIVER TRANSPLANTATION AT A UNIVERSITY HOSPITAL OF THE NORTHEAST OF BRAZIL. Jose H. Garcia, Gustavo R. Coelho, Douglas H. Filho, Katia F. Vasconcelos, Marcos A. Barros, Paulo E. Costa, Ivelise R. Brasil, Gleydson C. Borges, Tarciso D. Rocha, Cinthya F. Viana, Denissa F. Mesquita, Dirk Sherenken, Joao B. Vasconcelos. *Surgery, Federal University of Ceara, Fortaleza, Ceara, Brazil*

Liver transplantation is a lifesaving procedure for patients who have chronic end-stage liver disease and acute liver failure when there are no alternative treatment options. The purpose of the present study was to present the series operated by a Liver Transplantation Group of the University Hospital of Ceara, Brazil. From May 2002 to August 2008, 300 liver transplantations from cadaveric donors were performed by our center. There were 225 men and 75 women with a mean age of 48.1 years (range from 9 to 70 years). The main indication of transplant was post-hepatitis C cirrhosis (25%), followed by alcoholic cirrhosis (20%). Forty one patients had a liver transplantation for cancer. Thirty nine patients were Child A (13%), 153 were Child B (51%) and 108 were Child C (36%). The MELD scores ranged from 6 to 31 (median 18.8). Twenty two patients (7.3%) required retransplantation, most of them due to hepatic artery thrombosis. Biliary complications occurred in 54 patients (18%) and vascular complications were found in 32 patients (10.6%). The 1- and 3-year actuarial survival rate was 76% and 67% respectively. The present results show levels of postoperative mortality and survival rates similar to those reported by several other centers in the world.

Abstract# P-122
GASTROINTESTINAL COMPLICATIONS ASSOCIATED WITH POST-TRANSPLANTATION LYMPHOPROLIFERATIVE DISORDERS IN LIVER TRANSPLANT PATIENTS. Ruy Cruz, Vivek Sharma, Michael De Vera, Eisaburo Sasatomi, Roberto Lopez, Paulo Fontes, Wallis Marsh. *Starz Transplantation Institute, University of Pittsburgh, Pittsburgh, PA, USA*

Post-transplantation lymphoproliferative disorder (PTLD) is a well-recognized complication of immunosuppression in liver transplant recipients, occurring in approximately 4% of patients. The involvement of the gastrointestinal (GI) tract takes place in 25% of all cases of PTLD. Fortunately, surgical intervention is seldom required. We herein report our experience in the treatment of patients with GI complications associated with PTLD after liver transplant requiring emergency surgical intervention. **Study design:** A retrospective analysis of 5000 patients who underwent liver transplantation between 1980 and 2007 was conducted. **Results:** Eight patients (0.16%) presented with GI complications associated with PTLD. The patients assessed had an age range from 23 to 78 years at the time of diagnosis of PTLD (median, 49 years). The average time from liver transplantation to emergency GI surgery was 7±2.4 years (range, 4 months to 17 years). Indications for surgical intervention were: perforation (4 cases), small bowel obstruction (3 cases), and GI bleeding (1 case). The GI PTLD presentation sites were: small bowel (4 cases), terminal ileum and right colon (3 cases), and gastrojejunostomy (1 case). Seven of eight patients were EBV PCR positive at the time of surgery (range, 20 to 16,000). Six patients had