

**Abstract # O-41**

**Comorbidity Score As a Selection Criteria for LDLT in Elderly Patients.** Arzu Oezcelik, Murat Dayangac, Necdet Guler, Yalcin Erdogan, Onur Yaprak, Yildiray Yuzer, Yaman Tokat. *General and Transplantation Surgery, Istanbul Science University, Istanbul, Turkey*

**Introduction:** Previous published data have shown that age alone is not a contraindication for living donor liver transplantation (LDLT). However a careful evaluation of the co-morbidities, in order to differentiate which patient benefit from LDLT, is essential for the survival in elderly patients. The aim of this study was to define a co-morbidity score as selection criteria for the decision whether a patient is suitable for LDLT.

**Patients and Methods:** Between October 2005 and June 2011, 280 patients underwent a LDLT. Out of this group, all recipients who were 60 years old or older, at the time of LT, were identified. The clinical characteristics, pre-, intra- and postoperative data, co-morbidities, graft and patients survival of these patients were retrospectively reviewed. The co-morbidity score was calculated for each patient according to the Charlson Co-morbidity score. The results were statistically analyzed.

**Results:** There were 94 patients (37%) in the age of 60 years or older. All patients received the right lobe of their donor in a standard technique. The donor and graft characteristics and the postoperative complications are shown in the TABLE.

Donor and Recipient Criteria	
Donor age	34 (IQR 29-40)
MELD score	15 (IQR 11-18)
Graft-to-recipient weight ratio	1.1 (IQR 1.1-1.3)
Graft ischemic time	105 Min. (IQR 89-120)
Post-LT biliary complication	27 Patients (28%)

The median co-morbidity score of all patients was three (IQR 2-3). Out of these patients 17 patients (18%) died in the median time of four month (IQR 1-12). The remaining 77 patients (82%) are alive and have a median survival of 33 month (IQR 16-52). The co-morbidity score of these 77 patients was significantly lower compared to the other 17 patients (2 vs. 5; p=0.0001). There were no other significant differences. None of the patients with a co-morbidity score above five survived longer than 12 month

**Conclusion:** It is known that the co-morbidity score gains on importance in elderly patients. Based on the results of our study we can conclude that the co-morbidity score of elderly patients should be below five in order to be selected as suitable for LDLT.

**Abstract # O-42**

**Age and Outcome in Liver Transplantation for Acute Liver Failure.** William S. Burnside, Philip Bayly. *Anaesthesia and Critical Care, Freeman Hospital, Newcastle, United Kingdom*

**Introduction**  
Advancing age has been historically seen as a relative contraindication to liver transplantation (LT). While evidence grows to refute this in elective LT [1] there is less evidence regarding acute liver failure (ALF). February 2013 saw the 20th anniversary of LT at our institution compelling us to examine age and outcome in LT in acute liver failure.

**Method**  
Data on all LTs in our institution are contemporaneously stored on a database. Data were examined for primary LT for ALF and 1 year mortality and divided into 4 age groups. Transplants performed up to August 2012 were included to allow for data to be accurate for 1 year mortality. Aetiology of ALF was also recorded.

**Results**  
For the time period 107 cases were found with an age range from 14 to 68. One year mortality in all patients was of 22.4% while the mortality throughout all age groups was comparable, table below.

1 Year Mortality in Liver Transplantation for Acute Liver Failure					
Age	<30	30-39	40-49	50+	Total
N	35	30	18	24	107
Mortality	9	7	3	5	24
% Mortality	25.7	23.3	16.7	20.8	22.4

Aetiology of ALF varied with age, particularly regarding paracetamol (acetaminophen) overdose (POD). In the under 50 group aetiology of ALF was POD in 69.9% of cases, in the 50+ group it was 33.3%.

**Discussion**  
ALF is a medical emergency with LT as a definitive treatment option. Our institutions experience would suggest 1 year mortality in those over 50 is consistent with all age groups. However, we have not considered those who did not receive a LT or examined comorbidities and functional capacity. We cannot exclude a selection bias to transplant sicker younger patients whilst

avoiding LT in higher risk older patients. Thus all age groups may not be directly comparable. Aetiology is important as causation of ALF differs by age. This could alter overall results if mortality varied by aetiology. In our data 1 year mortality in LT for POD was 27.3% compared with 14.6% in LT for other causes of ALF. Other factors that could affect mortality include the observed reduction in rejection episodes associated with increasing age [2].

**Conclusions**  
Age, taken in isolation, should not be a barrier to LT in acute liver failure.

- References**
1. Kesmani RN, et al. Old Age and Liver Transplantation: A Review. *Liver Transpl.* 2004;10(8):957-967.
  2. Cross TJ, et al. Liver transplantation in patients over 60 and 65 years: an evaluation of long-term outcomes and survival. *Liver Transpl.* 2007;13(10):1382-8.

**Abstract # O-43**

**Pediatric Liver Allograft Health with Normal Liver Function Test, 10 Years after Liver Transplantation : All Is Not Well!!!** Saista Amin, Juliana Puppi, Bhaswati Acharyya, Corina Cotoi, Lara Souza, Alberto Quaglia, Anil Dhawan. *Pediatric Hepatology, King's College Hospital, London, United Kingdom*

**Purpose of the Study:** To Evaluate the Liver Histology in Children with Normal Tests of Liver Function and Radiology, 10 years after liver transplant. **Methodology:** 62 children, 10 years after Liver transplant with normal Liver functions (AST, ALT, GGT, Bilirubin, Albumin) who consented for Liver biopsy, were studied prospectively. Incidence and risk factors for abnormal graft histology were also evaluated.

**Results:** Of the 62 children (32 male), age being between 11 years and 25 years median age was 14 (+/- 2 years), at the time of biopsy; 53 (85.5%) children had abnormal histology (fibrosis/steatosis/both). On Ishak staging, stage 3 and 4 fibrosis was found in 23 (43.5%) children. 11 (20.7%) had stage 1 fibrosis, 17(32%) with stage 2. Recipient related risk factors evaluated were episodes of acute rejection, biliary and vascular complications, CMV infection, De Novo auto immune hepatitis and PTLD. Donor related risk factors evaluated were age, sex, CMV status, graft steatosis. Both donor and recipient risk factors were comparable with normal and abnormal histology groups

**Conclusion:** Normal liver biochemistry does not reflect graft histology. Hence a caution has to be observed while predicting allograft health without Liver Biopsy.

**Abstract # O-44**

**Cognitive and Intellectual Function in Korean Pediatric Liver Transplantation Recipients; Cross Sectional Study in a Large Volume Living Donor Liver Transplantation Center.** Nam-Joon Yi<sup>1</sup>, Jeong-Moo Lee<sup>2</sup>, Suk-Won Suh<sup>1</sup>, YoungRok Choi<sup>1</sup>, Hae Won Lee<sup>1</sup>, Hyun-Young Kim<sup>1</sup>, Kwang-Woong Lee<sup>1</sup>, Kyung-Suk Suh<sup>1</sup>, Jiwon Lee<sup>2</sup>, Hee Gyung Kang<sup>2</sup>, Jae-Won Kim<sup>3</sup>. <sup>1</sup>*Surgery, Seoul National University College of Medicine, Seoul, Korea;* <sup>2</sup>*Pediatrics, Seoul National University College of Medicine, Seoul, Korea;* <sup>3</sup>*Psychiatry, Seoul National University College of Medicine, Seoul, Korea*

**Background:** Cognitive and intellectual difficulties have been reported in children who received organ transplantation. However, these problems have not been known in Asian-living donor liver transplantation (LDLT) based populations. We observed the cognitive and intellectual function in Korean pediatric LT recipients.

**Methods:** Pediatric patients who received LT and followed up more than one year after LT at Seoul National University Hospital were collected. Among 95 pediatric LT recipients, 31 patients were included in this study; 29 children underwent a LDLT (93.5%). Each patient underwent neuropsychiatric evaluation including measuring intellectual and social quotients; attention-deficit-hyperactivity-syndrome (ADHD), mental retardation (MR, IQ<70), and lower-average intelligence (LI, IQ<90).

**Results:** The mean age of the patients was 3.0 years (8 months-11years) at transplantation and 11.0 (2.5-16) years at the time of neuropsychiatric evaluation. The average values of intellectual quotient and social quotient were 97.63 (59-132) and 101.1 (44-139). Five (16.1%) patients were diagnosed with ADHD and the other five patients were required of follow-up for ADHD. Five (12.9%) patients were documented MR (IQ<70) and 11 (35.5%) showed LI (IQ<90). One patient was diagnosed as pervasive