

patients died during the observation period. Reasons for death were infection $n = 13$, tumor $n = 13$ (*de novo* $n = 7$, recurrence $n = 6$), graft related $n = 4$, viral recurrence $n = 2$, cerebrovascular $n = 3$ and other $n = 3$.

Conclusion: Our analysis shows that LT in patients >65 years is associated with an acceptable long-term outcome. The reason for the relatively high percentage of elderly patients dying of tumor recurrence/*de novo* tumors and infections postLT might be an immunosuppressive side effect that is under-reported in classic age-limited drug studies so far. Re-evaluation and adaptation of postLT patient management might further improve long-term outcome.

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NONALCOHOLIC STEATOHEPATITIS AS INDICATION FOR LIVER TRANSPLANTATION IN EUROPE: DO WE CHOOSE THE RIGHT ORGANS FOR THE RIGHT RECIPIENTS?

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Background: Over the past years, nonalcoholic steatohepatitis (NASH) has emerged to become the third leading cause for liver transplantation (LT) in the US. Since 2002, chronic liver failure due to NASH has increased constantly.

Aim: The aim of this study was to investigate all adult patients with NASH, who underwent LT in Europe between 2002 and 2012.

Methods: We analyzed the European dataset of over 37.000 adult liver transplant recipients in collaboration with the European Liver Transplant Register (Paris – France), including the years 2002 until 2012.

Results: From 2002 to 2012, 37.612 adult patients underwent orthotopic LT in Europe. The male percentage accounted for 73.7% (27727/37612), female patients were only 26.1% (9855/37612; in <0.1% no sex was documented). The most common indication for LT was alcoholic cirrhosis with 39.8% (14956/37612), the incidence of NASH was documented with 0.9% (337/37612). The NASH group did not show any significant difference in overall patient survival when compared to other indications ($p = 0.681$; see Figure 1). Recipient BMI >40 did not impact on the outcome in the NASH patient group, but was a significant risk factor in the nonNASH cohort. Donor steatosis stratified as steatosis to mild, moderate and severe did not impact the outcome in the NASH group, whereas in the nonNASH patient cohort, the difference was significant ($p = 0.011$, see Figure 2).

Conclusion: Patients, who underwent LT due to NASH, did not have decreased survival rates when compared to other indications. Severe donor steatosis seems to have no influence on the survival outcome within the NASH group. Should we consider providing NASH patients with donor grafts regardless to their steatosis level that might diminish the gap between needed organs and their demand?

Figure 1:

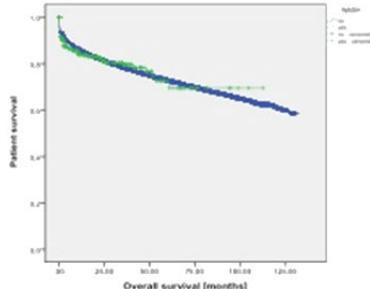
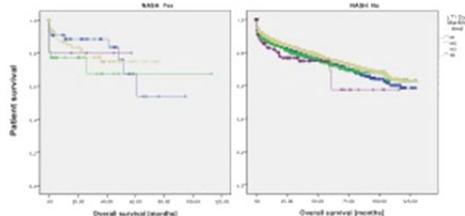


Figure 2:



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LIVER TRANSPLANTATION FOR ALCOHOLIC LIVER CIRRHOSIS – LONG-TERM FOLLOW-UP IN RESPECT OF CLINICAL OUTCOME AND ALCOHOL RELAPSE

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Background: Liver transplantation (LT) for end-stage alcoholic liver disease (ALD) is although the second most common indication in Europe still discussed controversially. Especially, evaluation of alcohol abstinence prior to listing and long-term observation of a potential alcohol relapse is challenging. Biomarkers such as carbohydrate-deficient transferrin (CDT) might be used to identify alcohol relapse. We analysed outcome of patients with LT for ALD at the Medical University of Vienna.

Methods: Data from patients transplanted between 1996 and 2012 for ALD as main or secondary indication were included. A defined period of sobriety before listing was not obligatory. A specialist psychologist evaluated a possible alcohol relapse that was strictly defined as any post-LT alcohol consumption. CDT-levels were regularly measured postLT. Long-term patient and graft survival and incidence of alcohol relapse was evaluated.

Results: 382 patients with LT for ALD as primary ($n = 290$) or secondary ($n = 92$) indication reached a median follow-up of 73 months (0–213). 1y and 5y patient and graft survival was 82%, 69% and 82% and 75%, respectively. Total alcohol relapse rate was 16% with 4.8% and 12.9% at 1- and 3-years. Patients with ALD as main indication experienced significantly more often alcohol relapse (log rank; $p = 0.037$). Regularly post-LT measured CDT-levels showed a sensitivity of 94% and a specificity of 87%. In patients who died with alcohol relapse (32/186), death was significantly more often liver-related than in patients without alcohol relapse (154/186) (Chi-squared test; $p < 0.0001$).

Conclusion: This large single centre analysis describes excellent long-term outcome in LT for ALD. The alcohol relapse rate was low, although a defined abstinence period prior to listing was not applied and postLT alcohol relapse was defined strictly. CDT-levels measured postLT proved to have high sensitivity and are therefore helpful tools to diagnose a potential alcohol relapse.

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LIVER TRANSPLANTATION IN FAMILIAL AMYLOIDOTIC POLYNEUROPATHY: A 20 YEARS FOLLOW-UP STUDY

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Background and Aims: Familial amyloidoitic polyneuropathy (FAP) is an inherited, fatal, systemic disease where liver transplantation (LT) is an accepted treatment. Our aim was to characterize and evaluate the outcome of FAP patients undergoing LT.

Methods: Data from all FAP patients transplanted between 1992 and 2012 in one Portuguese LT centre were analyzed for demographics, FAP-related comorbidities, disease duration previous to LT and cause of death. Long term survival was done using Kaplan–Meier survival curves. Logistic regression was used for multivariate analysis of survival predictive factors.

Results: During the study period, 36 patients were transplanted for FAP, representing 25.8% of all LTs in the same centre. Median age at LT was 35 (range 21–67 years), with 186 males (51.5%). Prior to LT, median disease duration was 3 years (range 0–8 years). Forty two (11.6%) patients had to be re-transplanted. There were 45 deaths. Main causes of death were multiple organ failure (MOF) (18.8%), followed by sepsis (16.3%), vascular complications (7.7%), bleeding (4.7%), and stroke (4%). Overall survival at 1, 3, 5 and 10 years was 93.8%, 90.3%, 89.2% and 85%. Mortality predictive factors included in the model were age, disease duration, gender, presence of dysautonomia and neuropathy. Only age (6.7% increase for each year, $p = 0.002$) and disease duration previous to LT (20.8% increase for each year, $p = 0.016$) were significant. Almost 15% of FAP patients were transplanted more than 15 years ago, in the sub-group mean survival after the first symptoms was 18.2 years, comparing favourably with the mean survival time of 9–13 years, in the pre-transplantation era.

Conclusions: LT in FAP patients seems to be effective, associated with a very good long-term outcome, strongly suggesting an increase in survival. The main significant factors associated with mortality were disease duration prior to LT and age, thus suggesting the need for the procedure early in the course of disease.