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Critical Care Outcomes

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LIVER TRANSPLANTATION IN PATIENTS OVER SEVENTY YEARS OF AGE

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PURPOSE: To investigate whether age at Liver Transplant (LT), older than 70 years compared with that of patients younger than 60 years is associated with patient survival, length of stay, readmissions, or complications.

METHODS: We retrospectively identified all first LT recipients at Mayo Clinic in Jacksonville, Florida, from February 1998 to May 2004 aged >70 years and case-matched with recipients <60 years according to the etiology of end-stage liver disease, model for end-stage liver disease (MELD) score, and gender. The following data were collected: demographics, Operative Time (OT), Warm Ischemic Time (WIT), Cold Ischemic Time (CIT), intraoperative fluid requirement, length of ICU and hospital stay, complications, rate of readmissions, and survival. Numerical data was summarized with the sample median and range. A log-rank test was used to compare survival according to age group at LT. Wilcoxon's rank sum test was used to compare length of hospital and ICU stay, and readmissions per month between groups. Fisher's exact test was used to compare the occurrence of rejection and complications between groups.

RESULTS: Forty patients older than 70 years underwent LT during the study period. Table 1 depicts the demographics and operative characteristics which are similar in both groups except for fluids required intraoperatively which was higher in patients >70 years. Rejection appears to occur more often in patients <60 years. Although it did not reach a statistically significant difference, there was a tendency for higher

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infectious complications and bile leak in patients older than 70. However, there was no difference in survival at 1 month or 1 year. Length of ICU and hospital stay and need for ICU and hospital readmissions were also similar between the two groups (Table 2).

CONCLUSION: The outcome of liver transplantation in the elderly is similar to that of younger patients, when they are matched for acuity and etiology. Older patients have less rejection and similar rates of infection and biliary complications.

CLINICAL IMPLICATIONS: Patients should not be denied Liver Transplantation based on age alone.

Table 1— Demographics and Operative Characteristics of the Liver Transplant Patients <60yrs vs >70 yrs.

Patients	Age yrs (S.D)	MELD (S.D)	BMI Kg/m ² (S.D)	OT Hrs (S.D)	WIT min (S.D)	CIT hrs (S.D)	Fluids ml (S,D)
<60 yrs	49.8(+/- 1.18)	16.41(+/- 6.94)	28.53(+/-5.37)	5.35(+/- 1.57)	35.08(+/- 2.45)	7.21(+/- 32)	3784(+/- 1068)
>70 yrs	71.5(+/- 0.34)	16.88(+/- 6.82)	26.77(+/-4.32)	4.77(+/- 1.36)	33.88(+/- 1.55)	6.68(+/- 29)	5535(+/- 2716)
P Value		0.9	0.27	0.09	0.86	0.60	0.003*

DISCLOSURE: Bangarulingam Sujay, None.