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OUTCOMES AND RISK FACTORS IN LIVING DONOR LIVER TRANSPLANTATION IN OLDER PATIENTS OVER 70 YEARS: A MULTICENTRIC COHORT STUDY

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Background : With increased living donor liver transplantation (LDLT)demand among older adults who often face higher perioperative risks, this study examines outcomes and risk factors for LDLT in patients aged over 70 years.

Methods : This multicentric cohort study included 4802 LDLT patients registered in Korean Organ Transplantation Registry; 142 Older (age≥70) and 4660 Younger groups (age<70). Graft survival was compared between 1:5 propensity score-matched groups and evaluated using Cox models in the entire population. Risk factors for graft loss in the Older group versus the Younger group were explored within various subgroups.

Results : The Older group exhibited higher incidence of pre-existing conditions, such as hypertension and diabetes. Five-year graft survival was lower in the Older group than the Younger group in unmatched analysis (74.4% vs. 87.2%, P<0.001). However, this difference was not significant in matched analyses (74.0% vs. 80.7%, P=0.180). Multivariable Cox regression also showed no significant association between graft survival and either the Older group (aHR 1.24, P=0.294) or recipient age in continuous form (aHR 1.05, P=0.341 per 10-year increase). However, in subgroups with DM (aHR 1.65, P=0.011), MELD≥25 (aHR 1.89, P=0.034), encephalopathy (aHR 1.82, P=0.017), and HCC (aHR 1.34, P=0.047), the Older group showed significantly higher risk of graft loss compared to the Younger group.

Conclusions : LDLT in patients over 70 showed comparable survival to younger patients after adjustment. However, older age was a significant risk factor when comorbidities like DM, high MELD, encephalopathy or HCC were present, highlighting the need for careful patient selection.

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