



E-047

Outcomes Of 6000 Living Donor Liver Transplantation: A 30-Year Journey In A High-volume Single Center

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Background : Asan Medical Center received global attention in 1999 with the first living donor liver transplantation (LDLT) using a modified right lobe graft. This landmark operation played a major role in improving recipient outcomes while ensuring donor safety. The objective of this study was to share the outcomes of 6000 LDLTs with center around the world and identified risk factors for in hospital mortalities to optimize outcomes.

Methods : We conducted a retrospective review of 6,000 recipients who underwent LDLTs from 6,570 live donors, including 312 children below 18 years old, at Asan Medical Center, Seoul, Korea, from December 1994 to January 2021.

Results : Our analysis revealed significant decreases in operative time, intraoperative RBC transfusion, postoperative hospital stay, and in-hospital mortality as the number of cases accumulated. Particularly noteworthy was the decline in hospital mortality from 6.1% in Era I to 3.2% in Era II, and a remarkable 1.2% in Era III ($P = 0.000$) for adult-to-adult LDLT using single lobe recipients. Furthermore, multivariate analyses identified several significant and independent risk factors for in-hospital mortality in adult-to-adult LDLT using single lobe recipients, including age above 65 years ($p=0.019$), male gender ($p=0.0006$), MELD score above 30 ($p=0.0008$), re-transplantation ($p=0.0033$), earlier eras of LDLT ($p=0.000$), viral liver disease ($p=0.0198$), pre-LT renal replacement ($p=0.0471$), donor age below 50 years ($p=0.0047$), and GRWR below 0.7 ($p=0.0211$). In conclusion, our experience demonstrates excellent outcomes based on standardized surgical techniques, protocols for donor/recipient evaluation, and perioperative management.

Conclusions : The data derived from Asan Medical Center's extensive experience serves as a valuable resource for the global medical community, contributing significantly to the advancement of the LDLT field.

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