



OP 4-5

Benefit Of Living Donor Liver Transplantation In Graft Survival For Extremely High Model For End-Stage Liver Disease Score \geq 35

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Background : Living liver donation with high model for end-stage liver disease (MELD) score was discouraged until recently despite organ shortage. This study aimed to compare graft survival between living donor liver transplantation (LDLT) and deceased donor liver transplantation (DDLT) recipients with extremely high MELD (score of ≥ 35).

Methods : Between 2008 and 2018, 359 patients who underwent liver transplantation with a MELD score ≥ 35 at the Samsung Medical Center, Republic of Korea were enrolled. The primary and secondary endpoints were graft survival and short term (90 days) postoperative complications, respectively. We compared graft and overall survivals between living and deceased donors, and assessed the risk factors for graft survival according to donor type.

Results : No statistical difference was observed in graft survival between the LDLT and DDLT groups ($P = 0.610$). Old age, red blood cell (RBC) transfusion during the operation, and early postoperative complications were risk factors for graft failure ($P = 0.011$, <0.001 , and 0.005 , respectively). Biliary complications were more common in the LDLT group ($P = 0.021$), while viral infection, postoperative uncontrolled ascites, and postoperative hemodialysis were more common in the DDLT group ($P = 0.002$, 0.018 , and 0.027 , respectively). In the LDLT group, acute chronic liver failure, intraoperative RBC transfusion, and early postoperative complications were risk factors for graft failure ($P = 0.007$, <0.001 , and 0.001 , respectively).

Conclusions : LDLT in patients with a high MELD score is often avoided, but our study showed that LDLT is not inferior to DDLT in graft survival if appropriate risk evaluation is performed in cases of extremely high MELD scores. This result will help overcome organ shortages in high-MELD liver transplantation.

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