

Living Donor Liver Transplantation with Dual Grafts - A Case Report

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Abstract

Background: Living donor liver transplantation (LDLT) exposes to risks both the donor, due to a potential small residual liver volume, and the recipient, who faces the risk of small-for-size graft syndrome. In order to overcome these drawbacks, liver grafts from two different donors can be used. This paper presents a case of dual graft LDLT using a right hemiliver and a left lateral section from related donors.

Case presentation: A 14-year old female diagnosed with chronic hepatic failure due to Wilson's disease with Model-for-End-Stage-Liver-Disease score of 25, underwent a dual graft LDLT, receiving a right hemiliver with a reconstructed middle hepatic vein from her sister, and a left lateral section from her mother. None of the grafts complied with a satisfactory graft-to-recipient weight ratio (GRWR), if they would have been independently transplanted. The combined GRWR was 1.10. The donors and the recipient have been followed-up for over 1 year.

Results: The donors had no postoperative complications. The donors and the recipient were discharged 8 and 19 days after surgery, respectively. After 12-month follow-up, both donors and the recipient were alive, with normal graft function.

Conclusion: Dual graft LDLT can be a feasible solution to overcome the risk of small-for-size graft syndrome.

Abbreviations: BSA = body surface area, GRWR = graft-to-recipient weight ratio, GV/SLV = recipient standard liver volume, HA = hepatic artery, HD = hepatic duct, HV = hepatic vein, LDLT = Living donor liver transplantation, LL = left lobe, LLS = left lateral section, MELD = Model for End-Stage Liver Disease, POD = postoperative day, PV = portal vein, RL = right lobe, SFS = small-for-size graft, SLV = standard liver volume, WD = Wilson's disease

Key words: living donor liver transplantation, dual grafts, Wilson's disease

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