

A Combined Program of Cadaveric and Living-Related Liver Transplantation in a Single Center: An Experience of 1,000 Operations

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Abstract

Background: The liver transplantation program of Fundeni Clinical Institute reached a milestone (1000 operations performed by the same team in 20 years). It is a program for both adults and children, including cadaveric and living donor liver transplantations. We analyze the indications and results to emphasize the advantages of a combined program.

Methods: Between April 2000 and March 2020, 957 patients received 1,000 LTs at a single institution (Fundeni Clinical Institute, Bucharest, Romania). The demographics of donors and recipients, indications for liver transplantations, surgical procedures and results were analyzed.

Results: Deceased donor liver transplantation (DDLT): 831 DDLTs in 790 patients (83.1%): whole LT in 769 patients (80.4%), split LT in 17 patients (2%), reduced-size LT in 2 patients (0.5%), auxiliary LT in 1 patient (0.1%) and domino LT in 1 patient (0.1%). Living donor liver transplantation (LDLT): 169 LDLTs in 167 patients (17.2%) using right hemiliver in 121 patients (12.6%), left lateral section in 28 patients (2.9%), left hemiliver in 9 patients (0.9%), left hemiliver with segment 1 in 6 patients (0.6%), and dual graft LDLT in 3 patients (0.3%). Overall major morbidity rate was 42.2% (422 patients), while perioperative mortality was 8.3% (79 patients). Retransplantation rate was 4.5% (43 patients). The estimated 1-, 3-, 5- and 10-year overall survival rates for LT patients were 82.3%, 77.8%, 76.3% and 71.2%, respectively.

Conclusions: A combined cadaveric and living donor LT program including all surgical variant LT procedures offers the possibility to increase the volume with the well-known consequences on the postoperative results. The living donor program has a positive influence on the waiting list mortality; using both cadaveric and living donors enhance the possibilities in the case of an urgent retransplantation.

Key words: liver transplantation, deceased donor liver transplantation, extended criteria donors, living donor liver transplantation, split liver transplantation, domino liver transplantation, dual graft living donor liver transplantation, liver machine perfusion, ABO-incompatible LT