Long-Term Outcomes After Stent Insertion in Patients with Early and Late Hepatic Vein Outflow Obstruction after Living Donor Liver Transplantation

Kyeong Sik Kim, Ji soo Lee, Gyu Sung Choi, Choon Hyuck David Kwon, Jae-Won Cho, Suk-Koo Lee, Jong Man Kim
Surgery-Transplantation, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea.

Abstract: The purpose of this study was to describe the long-term effects of stent insertion in patients with hepatic venous outflow obstruction who underwent living donor liver transplantation (LDLT). Between January 2000 and December 2009, 622 adult patients underwent LDLT at our hospital. Of these patients, 21 (3.3%) were diagnosed with hepatic venous outflow obstruction (HVOO). Among these patients, stent insertion was performed in 17 patients. Then, the patients were divided into “early” and “late” groups according to when they received their HVOO diagnoses. The median follow-up period was 54.2 months (range, 0.5-192.4 months). Stent insertion was successful in 8 of 10 patients in the early group and 6 of 7 in the late group, and the 5-year primary patency rates were 46% and 20%, respectively. In both groups, patients with recurrent HVOO at the beginning had kinking confirmed by venography, and patients who had their stents for more than 3 years maintained long-term patency. Stent insertion is feasible in the long term in LDLT patients if patency is maintained. However, if kinking is seen on venography, patency maintenance is difficult. Therefore, to improve patency rate, initial surgical repair should be considered or a new indication might be needed.

Long Term Outcome of Patients with Portal Thrombosis Previous to Liver Transplantation

Isabel Lechuga Alonso, Santiago Salamea Sarmiento, María García-Conde Delgado, Oana Anisa Nutu, Pilar Del Pozo Elso, Iago Justo Alonso, Marina Pérez-Flecha González, Javier Martínez Caballero, Laura Alonso Murillo, Óscar Caso Maestro, Alberto Maracuzzi Quinto, Jorge Calvo Pulido, Álvaro García-Sesma Pérez-Fuentes, Alejandro Manrique Municio, Félix Cambra Molero, Carlos Jiménez Romero
Hepatobilipancreatic Surgery and Abdominal Organ Transplantation Department, Hospital 12 de Octubre, Madrid, Spain.

Introduction: Portal vein thrombosis is a late consequence of advanced cirrhosis. Its development has been associated with worse long term patient and graft survival, as well as a higher risk of vascular complications after liver transplantation.

Material and Methods: We reviewed all patients over 18 years old who underwent liver transplantation (LT) at University Hospital “12 de Octubre” between January 2002 and January 2017. Pediatric recipients and cases of retransplantation were excluded. Patients were divided according to the presence of preoperative portal thrombosis (PT, 126 patients) or no PT (N-PT, 724 patients).

Results: Mean recipient age was 55.5±9 in PT vs 53.7±11 in N-PT (p 0.085), with a similar number of male patients in both groups (76.2% in PT vs 72.8% in N-PT; p 0.431). There was a 59.2% rate of HCV infection in the PT group (52.4% in N-PT; p 0.157), and 22.2% of patients in the same group had a diagnosis of hepatocellular carcinoma (vs 29.9% in N-PT group; p 0.080).

Mean preoperative MELD score was 14.7 en TP vs 15.6 in N-PT (p 0.067). There were no significant differences found regarding preoperative BMI, haemoglobin, MELD-Na score and Child-Pugh score. 16.7 % of patients in the PT group received a suboptimal graft for LT, vs 21.7% in the N-PT group (p 0.204).

In relation to blood products transfusion, an average of 12.3 units of RBC was administered in the the PT group and 9.2 in the N-PT (p 0.084), with an average of 14.6 and 12.8 FFP units respectively (p 0.090) and no differences found when reviewing platelets and fibrinogen.

Mean ICU stay was 9.2 days in PT vs 6.7 in N-PT (p 0.075), while mean ward stay was 17.7 days in PT vs 19.4 in N-PT (p 0.429).

Portal thrombosis recurrence rate was 4% in patients with a previous diagnosis of PT, significantly higher than in those without said previous history (1.1% in N-PT; p 0.015). However, the rate of arterial thrombosis was 4.8% in the PT group vs 3.8% in the N-PT group with no statistical significance (p 0.890). Renal transplantation rate was 4% in PT and 6.2% in N-PT (p 0.326).

Actuarial survival at 1, 3 and 5 years was 86.5%, 79.1% and 76.2% respectively in the PT group, vs 84.5%, 78.3% y 74.3% in the N-PT group (p=0.489).

Conclusion: Pretransplant portal thrombosis is a diagnosis that has not been associated with a decreased survival after LT in our series; but seems to determine an increase in transfusion requirements and a higher risk of postoperative vascular complications.