

## Reno-portal Anastomosis

Hepato-Biliary Surgery and Liver Transplantation, Asan Medical Center, University of Ulsan  
College of Medicine

Deok-Bog Moon, Sung-Gyu Lee, Shin Hwang, Ki-Hun Kim, Chul-Soo Ahn,  
Gi-Won Song, Dong-Hwan Jung, Gil-Chun Park, Chun-Soo Park, Min-Ae Kum

Recently we described “Side-to-End type” renoportal anastomosis without division of LRV from inferior vena cava (IVC) using interposition graft of fresh cadaveric iliac vein or aorta in LDLT, which was technically modified for easy and safe anastomosis under stable operation field regardless of the degree of operation difficulty. Although “Side-to-End type” renoportal anastomosis interposing fresh cadaveric vessels in LDLT was a successful trial, recipients could not undergo LDLT timely because of extremely limited availability of fresh cadaveric vessel graft, particularly in countries in which deceased organ donors are scarce. As a new solution, we successfully used externally stented-polytetrafluoroethylene (ES-PTFE) conduit incorporated by bisected great saphenous vein at both ends for renoportal anastomosis in patient having phleboscrotic PV obliteration and large spontaneous SRS, which can make us to perform LDLT timely in the absence of cadaveric fresh vessel graft and also without additional risk to the recipient for harvesting long and large-sized autologous vein. In conclusion, ES-PTFE vascular conduit is a good alternative for fresh cadaveric vessels used for interposition graft in renoportal anastomosis when funnel-shaped saphenous fence is added to the both anastomotic site.

In living donor liver transplantation (LDLT), adequate portal flow enable the partial liver graft to regenerate rapidly and to satisfy recipient’s increased metabolic demand during posttransplant period. When severe portal vein stenosis or thrombosis with the hepatofugal collateral vessels is present due to advanced cirrhosis, conventional anastomosis between donor’s and recipient’s portal vein (PV) can not guarantee adequate portal flow to the graft. Recently we described “Side-to-End type” renoportal anastomosis without division of left renal vein (LRV) from inferior vena cava (IVC) using interposition graft of fresh cadaveric iliac vein or aorta in LDLT, which was technically modified for easy and safe anastomosis under stable operation field regardless of the degree of operation

difficulty. Although “Side-to-End type” renoportal anastomosis interposing fresh cadaveric vessels in LDLT was a successful trial, recipients could not undergo LDLT timely because of extremely limited availability of fresh cadaveric vessel graft, particularly in countries in which deceased organ donors are scarce. As a new solution, we successfully used externally stented-polytetrafluoroethylene (ES-PTFE) conduit incorporated by bisected great saphenous vein at both ends for renoportal anastomosis in patient having phlebosclerotic PV obliteration and large spontaneous SRS, which can make us to perform LDLT timely in the absence of cadaveric fresh vessel graft and also without additional risk to the recipient for harvesting long and large-sized autologous vein. In conclusion, ES-PTFE vascular conduit is a good alternative for fresh cadaveric vessels used for interposition graft in renoportal anastomosis when funnel-shaped saphenous fence is added to the both anastomotic site.