Duct anastomosis in LDLT: duct to duct vs. hepaticojejunostomy

LDLT is one of the most complicated and technically demanding surgical procedures. Many technical improvements have contributed to the excellent donor and recipient outcomes as well as the outstanding graft survival rate of over 90%. However, the incidence of biliary complications, especially biliary anastomotic stricture (BAS), is still high. BAS not only affects the long-term outcome and quality of life but also occasionally causes graft losses and patient deaths. Measures must be taken to manage the problem promptly. Risk factors for BAS include small graft bile duct, increased number of graft bile duct, bile leak, and certain kinds of surgical technique. The overall success rate of endoscopic treatment of BAS conducted by operating surgeons is high. In the surgical treatment of stricture at a duct-to-duct anastomosis, the duct-to-duct anastomosis is converted to a hepaticojejunostomy either in an end-to-side mode or in a side-to-side mode. The two modes yield similar outcomes except that the risk of hepatic artery injury is lower with the latter. The side-to-side mode also allows future endoscopic access to the site of anastomosis. The preliminary results of our randomised controlled trial on duct-to-duct anastomosis versus hepaticojejunostomy will be discussed.