

Liver II - Revisit the Outcomes

Laparoscopic hepatectomy and robot-assisted liver graft implantation in living donor liver transplantation

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Minimally invasive surgery has been introduced for liver transplantations. Although laparoscopic or robot-assisted living donor hepatectomy is being used, minimally invasive surgery is rarely performed in recipients during liver transplantation.

Our center has developed and successfully performed PLDRH (pure laparoscopic donor right hepatectomy) for 500 patients in 2021. We extended the laparoscopic surgery to recipients based on these accumulated experiences in performing PLDRH. Beginning with laparoscopic liver mobilization only for the recipients, we performed the laparoscopic explant hepatectomy followed by graft implantation using the upper midline. We then expanded our trial to graft implantation by robotic/laparoscopic hybrid method (anastomosis of the hepatic and portal veins by laparoscopic surgery, and anastomosis of the hepatic artery and bile duct by robot-assisted surgery). Then, we performed robot-assisted liver graft implantation after a total laparoscopic explant hepatectomy in living donor LT (LDLT). After these experiences, we performed robot-assisted recipient surgery.

Due to several limitations of minimally invasive surgery, adequate indication is important. Also, surgical tips to overcome the limitation of these innovative techniques need to know.

In this lecture, I will introduce the surgical tips and adequate indications of these minimally invasive recipient surgery.