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## Manuscript Title:

A Novel Liver Vein Deprivation Technique that Promotes Increased Residual Liver Volume (Video)

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Abstract:

Inadequate volume of future liver remnant (FLR) is a major challenge for hepatobiliary surgeons treating large or multiple liver tumors. As an alternative to associating liver partition and portal vein ligation (ALPPS) for staged hepatectomy and liver venous deprivation (LVD) using stage 1 interventional radiology for vascular embolization combined with stage 2 open liver resection have been used. A novel modified LVD technique was performed in a patient with pancreatic neuroendocrine tumor with liver metastases by using stage 1 laparoscopic ligation of the right hepatic vein, right posterior portal vein, and short hepatic veins combined with local excision of three liver metastases in the left hemiliver. The operation was followed three days later by interventional radiology to embolize an anomalous right anterior portal vein to complete LVD. A stage 2 laparoscopic right hemihepatectomy and pancreaticosplenectomy were then carried out. The minimally invasive technique promoted a rapid increase in volume of the FLR after the stage 1 operation to allow...

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