



LV SY 1-2

Optimal extent of liver resection and surgical margin for CLM

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Lecture : Postoperative liver failure (PLF) is the major cause of morbidity after liver resection (1,2). The risk of PLF is linked to the future liver remnant (FLR) (3), although liver volume and function are not always proportional (4). Therefore, the estimation of the preoperative FLR is mandatory in major hepatectomy as for staged procedures (5,6). As alternative, for ensuring adequate FLR, parenchyma-sparing major hepatectomies have been proposed (10-13), including detachment of major intrahepatic vessels from CLM (R1vasc) which proved to be oncologically suitable (14). Given that, major hepatectomy has been reduced (15-16). However, the FLR estimation in complex parenchyma-sparing hepatectomy for multiple bilobar and deep-located CLMs is unfeasible just adopting hand trace technique. Three-dimensional (3D) virtual cast has shown facilitating the FLR estimation (17-19). Recently, 3D modelling to estimate the FLR in the peculiar setting of ultrasound guided R1vasc approach has been introduced (20). That adding standardization could enhance the clinical reliability, reproducibility, and then safety of ultrasound guided R1vasc surgery.

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