



## Thoracoabdominal Incision

**Guido Torzilli**

Humanitas Research Hospital, Italy

### Background

In patients with hepatocellular carcinoma (HCC) in a diseased liver, surgery should be offered in a parenchyma-sparing fashion. This approach seems unfeasible for large and deeply located lesions. Ultrasound study of the tumor-vessel relationship and hepatic inflow and outflow opens new technical solutions: herein is described a new operation based on this approach.

### Methods

A 69-year-old man with a large centrally located HCC (Barcelona Clinic Liver Cancer stage C) underwent surgery. The HCC was located in segments 7, 8, and part of 5, extensively compressing and dislodging the anterior (P5-8) and posterior (P6-7) Glissonean pedicles at their origin. The lesion involved the right hepatic vein (RHV) and was in contact with the middle hepatic vein at the caval confluence. An inferior RHV (IRHV) was preoperatively evident.

### Results

After a J-shaped thoracophrenolaparotomy, the liver exploration with the aid of intraoperative ultrasound confirmed the tumoral contact without vascular invasion with P5-8 and P6-7 and disclosed multiple communicating veins between the middle hepatic vein and RHV, warranting with the IRHV the segment 5-6 outflows. A resection of segments 7 and 8 with RHV resection, together with complete tumor detachment from P5-8 and P6-7, was performed. The specimen was removed combining the crush-clamping method for the parenchyma division and a peeling-off technique by means of blunt scissor dissection for the tumor vessel detachment. The postoperative course was uneventful. The patient was alive without recurrence at 12 months after surgery.

### Conclusions

This video is the first live demonstration of the previously reported radical but conservative policy, adding to the latter the technical solutions provided by detection of accessory veins such as the IRHV and communicating veins.