



Transfissural Approach for Laparoscopic Resection of a Deep Segment 8 Lesion in Contact with the Hepatocaval Confluence

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BACKGROUND

Patients with liver lesions contacting the hepatocaval confluence are non-optimal candidates for laparoscopy. The resection poses a risk of massive bleeding as well as fatal gas embolism in the case of injury to major hepatic veins or the vena cava. Although meticulous dissection is needed to detach lesions from the hepatocaval confluence, laparoscopy has significant limitations in terms of viewing and accessing the paradome area.

METHODS

Widely opening the midplane of the liver along the middle hepatic vein (MHV), termed the “transfissural approach,” makes the hepatocaval confluence easily accessible for laparoscopy and provides a good surgical field for safe detachment of the lesion from major hepatic veins and the vena cava.

RESULTS

A 74-year-old man underwent laparoscopic segment 8 resection for a 55-mm colorectal liver metastatic lesion in segment 8 contacting the right hepatic vein (RHV) and the

vena cava. The MHV was detected by transection of the midplane from the caudal side and was followed cranially. Complete transection of the ventral parenchyma of the MHV facilitated dorsal dissection of the lesion. After transection of the caudal and left-side borders of segment 8 and division of the segment 8 Glissonean pedicle, tumor-infiltrating branches of the MHV and RHV origins were divided, and the lesion was safely detached from the vena cava and the RHV origin.

DISCUSSION

The transfissural approach improves access to the deep part of the paradome area and increases the safety of laparoscopic segment 8 resection for lesions contacting the hepatocaval confluence.

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