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Letter to Editor

Laparoscopic hepatic segmentectomy 4a for HCC with cirrhosis: The cranio-ventral approach to the middle hepatic vein



Dear Editor,

Hepatocellular carcinoma (HCC) represents the most frequent surgical indication for minimally invasive approach.¹ Anatomical liver resection is considered as the gold-standard of treatment, however the anatomical resection of the posterior segments by laparoscopic approach may be complex.^{2–4} The major hepatic veins are known to run between the segments. For this reason, the hepatic vein guided approach is helpful for anatomical liver resection because these veins can be considered as landmarks to divide the liver parenchyma. In this approach the major hepatic vein is exposed continuously along its root.⁵

In this video, a cranio-caudal approach to the middle hepatic vein (MHV) is shown in order to perform an anatomical hepatic segmentectomy 4a for an HCC on cirrhosis. After identifying the course of the MHV and of the portal pedicle to segment 4a (P4a) by intraoperative ultrasound, P4a was intraparenchymally isolated and divided. Indocyanine green was intravenously injected and the negative staining showed the segmental area to be removed. Liver transection started with a cranio-caudal approach to the MHV that was isolated along its ventral side.

Liver resection was performed without pedicle clamping. Postoperative course was uneventful and the patient was discharged on postoperative day 3.

In conclusion the cranio-caudal approach, by exposing the hepatic veins from the root side to the peripheral side branches, may be considered as an effective technique for anatomical resections and safe because it avoids injuries of the veins at the level of their bifurcation.

Author contributions

FA: wrote the study; FR: selected and edited the video. FG made the final approval of the version to be published. All authors read and approved the final manuscript.

Ethics approval and consent to participate

Not applicable.

Consent for publication

The patients agreed to the publication of this report.

Declaration of competing interest

The authors declare that they have no competing interests.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.asjsur.2024.01.117>.

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