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ORIGINAL ARTICLE – HEPATOBILIARY TUMORS—STREAMING VIDEO

Anatomical Resection of Segment 8 by Means of Ultrasound-Guided Vessel Compression

Guido Torzilli, MD, PhD, Matteo Cimino, MD, Daniele Del Fabbro, MD, Fabio Procopio, MD, Matteo Donadon, MD, Florin Botea, MD, PhD, Carlos Garcia-Etienne, MD, and Marco Montorsi, MD

Department of Surgery, Hepatobiliary Surgery Unit, Humanitas Cancer Center, Istituto Clinico Humanitas, IRCCS, University of Milan, Milan, Italy

ABSTRACT

Background. Anatomical resection is the gold standard for liver resection in patients with hepatocellular carcinoma (HCC). Bimanual hepatic vessel compression has been already described, although segmental and subsegmental resection of segment 8 (S8) remain challenging by this technique. We demonstrate how to obtain a S8 demarcation by means of ultrasound-guided vessel compression.

Methods. Two patients with HCC with hepatitis C virus-related cirrhosis partially or fully located in S8 without portal thrombosis underwent liver resection. In the first patient with a HCC fed by subsegmental glissonian pedicles to S4 superior (P4sup) and S8 ventral (P8v), the resection area was disclosed by direct compression of the aforementioned feeding pedicles. A second patient had a HCC located in S8 ventral with a satellite in S8 dorsal; the patient had a pedicle to the right anterior sector originating from the left portal vein. The resection area was obtained by means of direct compression of the P8d and countercompression of the left portal vein (peripherally to the origin of the pedicle to the anterior sector), and P5. Countercompression was needed because of the peculiar trajectory of P8v passing across the middle hepatic vein.

Results. In neither case was there a congested area. In the first patient, hepatic veins were not exposed because it was a resection conducted in a subsegmental fashion. There was no morbidity, and no blood transfusions were needed. Patients were both discharged on day 8 after surgery.

Conclusions. Disclosure of subsegmental portions of S8 by means of intraoperative ultrasound-guided compression technique is feasible and confirms the reliability of this approach.

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G. Torzilli, MD, PhD
e-mail: guido.torzilli@unimi.it