

Resection of Giant Liver Metastasis of Gastrointestinal Stromal Tumor Using Intraoperative Ultrasound Guidance

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Abstract

We present the case of a 37-year-old patient with a surgical history of a gastrointestinal stromal tumor with jejunal location, AFIP classification 6a, hospitalized in our center for synchronous liver metastases. The oncological assessment performed after 12 months from surgery for primary tumor, during which Imatinib was administered, reveals stable disease. CT scan showed a single very large centrally located liver metastasis, 14 cm in diameter, involving segments V and VIII IV, IV and VII, compressing the main portal bifurcation, right hepatic vein, umbilical (scizural) vein and left hepatic vein, invading the middle hepatic vein. We considered it feasible to apply the concept of R1 vascular resection, performing a limited, non-anatomical, ultrasound-guided central hepatectomy, allowing detachment of the tumor from the right hepatic vein and from the umbilical vein. Thus, we sacrificed only the ventral portal pedicles of segments V and VIII and partially preserved these segments to avoid the risk of post-resection liver failure. Currently, the patient is disease-free after 53 months, supporting the concept of ultrasound-guided R1 vascular resection, in the context of systemic therapy with tyrosine kinase inhibitors for metastases of stromal gastrointestinal tumors.

Key words: liver resection, intraoperative ultrasound guidance, gastrointestinal stromal tumor GIST, central hepatectomy