

Totally Laparoscopic ALPPS: Bilobar Procedure with Preservation of the S3 Portobiliary Triad

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ABSTRACT

Background. A laparoscopic approach for associating liver partition and portal vein ligation for staged hepatectomy (ALPPS) would have the potential to decrease morbidity and mortality rates,¹ as similarly observed with laparoscopic liver surgery.²

Methods. A 54-year-old woman with stage IV rectal cancer (cT3dN1M1) was indicated for the ‘liver-first’ approach. The patient presented with a massive bilobar metastatic liver involvement, including S4. Five lesions were localized in a small left liver lobe (future liver remnant < 25%). During the first stage of ALPPS, the liver parenchyma was transected with preservation of the central part of the middle hepatic vein, followed by a non-anatomical resection of S3 and a metastasectomy in S2. The procedure was completed by radiofrequency ablation of S2 lesions close to the S2 portobiliary triad, to spare venous drainage for S3. The second stage of ALPPS was performed 8 days later.

Results. Operative time was 300 min for the first stage of ALPPS and 200 min for the second stage. Peroperative blood loss did not exceed 50 mL per operation, and no postoperative complications were observed. The patient

was discharged 7 days after the second surgery. One month later, a laparoscopic uncomplicated low anterior resection with tumor-free resection margins was performed. Five months after surgery, no disease progression was detected. **Conclusion.** A laparoscopic ALPPS procedure with preservation of one portobiliary triad in the left lobe would be feasible in selected patients. The laparoscopic approach would be very important for patients waiting for a final primary tumor surgery.

DISCLOSURE None.

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