

VIDEO DEMONSTRATION OF ULTRASOUND GUIDED LAPAROSCOPIC POSTERIOR SECTIONECTOMY WITHOUT USE OF CUSA

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Background : Laparoscopic posterior sectionectomy (LPS) is a challenging liver resection procedure often requiring advanced techniques and equipment to ensure precision. The Cavitron Ultrasonic Surgical Aspirator (CUSA) is frequently utilized to aid parenchymal dissection, but its unavailability in certain settings can pose challenges. This video demonstration highlights a technique for laparoscopic posterior sectionectomy performed without CUSA, showcasing an effective approach for safe and precise liver resection, emphasizing meticulous surgical techniques.

Methods : A 79-year-old male patient presented with a solitary lesion in segment VII of the liver, close to hepatocaval confluence. Preoperative imaging confirmed a well-circumscribed lesion without vascular invasion. LPS was performed using a combination of advanced bipolar energy devices and ligasure shears for parenchymal dissection. Key procedural steps included precise anatomical exposure, isolation of major vascular structures, and systematic parenchymal transection under continuous inflow control. Critical aspects of the technique were highlighted, including real-time intraoperative ultrasound guidance for vascular mapping and ensuring minimal blood loss.

Results : The procedure was completed successfully without intraoperative complications. Operative time was 220 minutes, and estimated blood loss was 60 mL. The postoperative course was uneventful, with the patient discharged on postoperative day five. Histopathological analysis confirmed R0 resection. The video highlights critical operative strategies to mitigate challenges typically encountered during LPS without CUSA, demonstrating the feasibility of this technique in resource-limited settings.

Conclusions : This video highlights the feasibility of laparoscopic posterior sectionectomy without CUSA, offering a practical alternative for surgeons. Proper planning, expertise, and utilization of conventional tools can ensure safe and effective outcomes, even in resource-constrained environments.

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