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Robotic-Assisted Left Hepatectomy: A Video Technique

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Abstract
The robotic liver surgery is gaining momentum and several centers worldwide reported their promising results in terms of shorter recovery, less post-operative pain when compared to the open counterpart. Despite the benefits in terms of better ergonomic, enhanced visualization and microsuturing capabilities in comparison to the laparoscopic surgery, this approach is still confined to high selected centers and the reproducibility of the results published are still questioned. Herein, we report our surgical technique for a robotic-assisted left hepatectomy in a step-by-step fashion. The patient is located in left-side up supine position and four robotic and one laparoscopic trocarts are inserted. After the mobilization of the liver, a meticolous intraoperative ultrasound is performed with the aim to assess the tumor location and its relationship with main vascular structures. The hepatic hylum is dissected and both left hepatic artery and portal vein are clipped and divided. The Pringle maneuver is not routinely performed. The parenchymal transection is performed employing the “clamp-crush” technique and the sharp technique. The left bile duct is controlled intraparenchymally. The left hepatic vein is transected by a robotic stapler (white load). The transection surface is inspected to check for potential bile leaks and finally a fibrin glue is over it. A drain is place close to the liver remnant.
Key words: left hemihepatectomy, robotic liver surgery, minimal invasive approach, liver tumors