Multimedia article

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SURGICAL VIDEO ENDOSCOPY and Other Interventional Techniques

Laparoscopic left lateral hepatic lobectomy for metastatic colorectal tumor

Abstract
Background: The growth of experience in laparoscopic surgery, technological improvements in laparoscopic instruments, and the application of laparoscopy to oncology surgery are responsible for the new challenge of laparoscopic liver surgery. Several series of laparoscopic liver resections have been reported, and these series have shown the feasibility of resections. The first anatomical laparoscopic liver resection was a left lateral segmentectomy, reported in 1996 by Azagra et al. [1] due to favorable anatomy of this hepatic segment for a totally laparoscopic approach.
Methods: This video shows a left lateral hepatic lobectomy (bisegmentectomy 2–3) by a total laparoscopic approach in a 56-year-old woman who presented with a metastatic tumor from operated colorectal cancer. A CO_2 pneumoperitoneum was induced with a Veress needle and abdominal pressure was maintained at 12 mmHg. Five trocars were placed along an ideal semicircular line, with the concavity facing the right subcostal margin, and a 30° angled laparoscope was used. A retraction of round ligament with suture was performed to obtain exposure of the inferior face of liver. The left hepatic pedicle was dissected in close vicinity with the portal branch. Segmental vascular structures and bile ducts of segments 3 and 2 were progressively and intraparenchymatously identified, clipped, and sectioned. A Pringle's maneuver was not necessary. The dissection line was demarcated on the liver with monopolar cautery, and liver parenchymal transection was obtained with an ultrasound scalpel (Ultracision, Ethicon Endosurgery). Finally, the left hepatic vein was sectioned with a linear vascular endostapler (Ethicon Endosurgery). Extraction of specimen was performed using a plastic bag through an enlarged trocar site.
Results: The operative time was 110 min, and blood loss was zero. The postoperative period was uneventful, the length of hospital stay was 5 days, and the patient returned to normal activity 1 week postoperatively. The surgical margins of specimen were free of disease.
Conclusions: Laparoscopic left lateral lobectomy of the liver is feasible and safe in patients with isolated malignant disease of the left lateral segment. This approach reduces blood loss and postoperative hospital stay, and it has a better cosmetic result [2–4].

Key words: Laparoscopy — Liver resection — Left lateral lobectomy — Metastatic tumor

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