HBP Practical Clinics I

Can Laparoscopic Major Liver Resection be Really Generalized? - Case Presentation -

Konyang University Hospital

In Seok Choi

Most early experiences with laparosocpic liver resection (LLR) were for treatment of benign lesions (hepatic adenoma, symptomatic adenoma, FNH, giant hepatic cysts) and consisted of small peripheral wedge resection.[1)]

Especially there have been several limitations to the widespread use of LLR, including the difficulty of mobilization and transection techniques used in open resection, a hard to management of uncontrollable hemorrhage, a lack of technical familiarity and comfort with laparoscopic equipments, and the absence of randomized trials with LLR.

Due to improved laparoscopic instruments and increasing experiences with laparoscopic and liver surgery, 50% of LLR in large series are conducted for primary or metastatic liver cancer, including laparoscopic major liver resection and anatomical resection.[2)]

In the reported data, approximately 75% of cases performed were wedge resections, segmentectomies, or bisegmentectomies, but 16% were anatomical hemihepatectomies.[3)]

Good selection criteria for laparoscopic major liver resection included main lesions (smaller than 10 cm) well beyond anticipated line of transaction, non-cirrhotics or well compensated cirrhosis, grade I or no esophageal varices, platelet count >80,000/ml, and an American Society of Anesthesiologists (ASA) score of 3 or less. However, huge tumor greater than 10 cm, tumors located in the segments VII and VIII in cirrhotic patients, and large tumors located in the vicinity of the hilum or the inferior vena cava are not candidates for a laparoscopic approach.[4,5)]

So, we will review several cases including 1) HCC or mets cancer in left lateral segment of liver 2) Left IHD stones with lobar atrophy 3) tumor located in the vicinity of S5 portal branch 4) Huge mass 5) tumor located in difficult segment (caudate lobe, VII and VIII), and discuss selection criteria, contraindication, and technical experiences.

References

1. Descottes B, Glineur D, Lachachi F, et al. Laparoscopic liver resection of benign liver tumors, Surg Endosc 2003;17:23-30.
2. KoffronA, Geller D, Gamblin TC, et al. Laparoscopic liver surgery: shifting the management of liver tumors. Hepatology 2006;44:1694-1700
3. Nguyen KT, Gamblin TC, Geller DA. World review of laparoscopic liver resection-2804 patients, Ann Surg 2009;250:831-841.
4. O'Rourke N, Fielding G. Laparoscopic right hepatectomy: surgical technique. J Gastrointest Surg 2006;8:213-216.
5. Dagher I, Belli G, Fantini C, Laurent A, Tayar C, Lainas P, Tranchart H, Franco D, Cherqui D. Laparoscopic hepatectomy for hepatocellular carcinoma: a European experience. J Am Coll Surg. 2010;211:16-23.