Laparoscopic assistant distal radical gastrectomy

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Abstract: As a minimally invasive procedure for gastric cancer, laparoscopy-assisted radical gastrectomy has increasingly been accepted, particularly when applied for the early gastric cancer. While its long-term effectiveness for the advanced gastric cancer remains unclear, its technique has become mature enough to meet the requirements of open surgery. In this video, laparoscopic assistant distal radical gastrectomy was performed on a 32-year male patient. The post-operative pathology confirmed that 8 of 25 lymph nodes were positive. The final TNM stage was pT3N3M0 and the pathologic stage was IIIb. The operation lasted 3 hours and 10 minutes. The intra-operative blood loss was about 50 mL and the incision length was 7 cm.

Key Words: Gastric cancer; laparoscopy-assisted radical gastrectomy; minimally invasive procedure

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Video description

As a minimally invasive procedure for gastric cancer, laparoscopy-assisted radical gastrectomy has increasingly been accepted, particularly when applied for the early gastric cancer. While its long-term effectiveness for the advanced gastric cancer remains unclear, its technique has become mature enough to meet the requirements of open surgery.

In this video laparoscopic assistant distal radical gastrectomy was performed on a 32-year male patient (*Video 1*). He had a body mass index (BMI) of 26. The pre-operative routine examinations showed a gastric antral cancer located at the lesser curvature. The pre-operative stage was $cT_{1\text{-}2}N_{1\text{-}2}M_0$. The intra-operative exploration showed that the cancer did not penetrate the serosal layer, and no distant metastasis was found. During the surgery, the principles of open surgery were followed: no touch, en bloc, and extracapsular resection (dissociation of the larger/lesser omental bursa and pancreatic capsule). The extended (D2) lymph node dissection was performed. Furthermore, based on the patient's specific condition, the lymph node stations 14v and 18 were dissected. Therefore, the final dissected lymph nodes included stations 1, 3, 4sb/4d, 5, 6, 7, 8a, 9, 11p, 12a, 14v, and 18. The post-operative pathology confirmed that 8 of 25 lymph nodes were positive. The final TNM stage was pT3N3M0 and the pathologic stage was IIIb. The operation lasted 3 hours and 10 minutes. The intra-operative blood loss was about 50 mL and the incision length was 7 cm. He was able to ambulate 12 hours after surgery, and anal exhaust occurred 41 hours later. After 80 hours, He began taking liquid diet. He was discharged 8 days after surgery; two weeks later, he began to receive adjuvant chemotherapy.

Our experiences from this case are: (I) Upon the beginning of the surgery, open the

Video 1 Laparoscopic assistant distal radical gastrectomy

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lesser omental bursa under the gastric cardia immediately to place grasping forceps to fence off the left hepatic lobe; if needed, dissect the celiac trunk region from the posterior approach to make the dissociated stomach hung in the abdominal wall. (II) During the dissection of lymph nodes in the the hepatoduodenal ligament region, the combination of the posterior approach with the anterior approach will make the dissection simpler and safer.

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