Techniques of the Single-Port Totally Laparoscopic Distal Gastrectomy

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ABSTRACT

Background. Single-port laparoscopic surgery for patients with early gastric cancer has been rarely reported. Our aim was to introduce techniques of the single-port totally laparoscopic distal gastrectomy (TLDG) in patients with early gastric cancer.

Methods. This procedure was performed using only one 3–3.5 cm skin incision on the umbilicus. One 12 mm and two 10 mm ports were used, and the flexible scope was used during the operation. Partial omentectomy with D1 + β or more lymph node dissection was performed. Bowel continuity was restored by intracorporeal gastroduodenostomy using two linear staplers.

Results. A total of 30 patients underwent single-port TLDG from June to August 2014. Median age of patients was 55 years (range 33–77) and median body mass index of patients was 21.2 kg/m² (range 15.7–26.1). Sixteen of

30 patients (53.3 %) were female. Operating times were 122.6 min, and blood losses during operations were 103.2 ml on average. The median length of postoperative hospital stay was 7 days, and the median number of dissected lymph nodes was 40 (range 16–67). No patients had dissected lymph nodes <15. The rate of complications was 20 % (6/30 patients), and no patients had an incisional hernia. Two patients experienced ileus (6.7 %), another two patients experienced delayed gastric emptying (6.7 %), and one patient suffered from small bowel obstruction. There were no postoperative mortalities.

Conclusions. The single-port TLDG for patients with early gastric cancer is feasible in very selected patients and in specialized gastric cancer centers with experience in multi-trocar laparoscopy and single-port laparoscopic surgery.

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