

A Modified Intracorporeal Billroth-I Anastomosis After Laparoscopic Distal Gastrectomy for Gastric Cancer: A Safe and Feasible Technique

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ABSTRACT

Background. The delta-shaped gastroduodenostomy, an intracorporeal Billroth-I anastomosis after laparoscopic distal gastrectomy and using only endoscopic linear staplers, has been increasingly adopted by gastrointestinal surgeons.^{1–5} We modified this technique to simplify operation procedures and reduce surgical trauma in patients with gastric cancer.

Methods. After the stomach and duodenum were transected in predetermined positions, small incisions were made on the greater curvature of the remnant stomach and the posterior side of the duodenum. The forks of the stapler in each incision were closed and fired following approximation of the posterior walls of the gastric remnant and duodenum. The involution of the common stab incision was accomplished only by the instruments of the surgeon and assistant, and the duodenal cutting edge was completely resected when the common stab incision was closed with the stapler, thus decreasing the anastomotic weak point and avoiding poor blood supply to the duodenal stump. The above procedure was performed for 41 patients with stage cT1-4a disease.

Results. Mean operation time was 143.4 ± 23.4 min, mean anastomosis time was 13.9 ± 2.8 min, mean blood loss was 34.6 ± 20.8 ml, and mean times to first flatus, fluid diet, and soft diet were 3.5 ± 1.3 , 5.1 ± 1.2 , and

8.1 ± 4.3 days, respectively. No patient experienced any anastomosis-related complications, such as anastomotic leakage, anastomotic stricture, or anastomotic hemorrhage. At a median follow-up of 10 months, no patient had died or experienced recurrent or metastatic disease.

Conclusions. The modified technique was technically safe and feasible, with acceptable surgical outcomes, in patients with gastric cancer.

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