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ORIGINAL ARTICLE – GASTROINTESTINAL ONCOLOGY

Laparoscopic Infrapyloric Area Lymph Node Dissection with No. 14v Enlargement for Advanced Lower Gastric Cancer in Middle Colic Vein Approach

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ABSTRACT

Background. We developed a procedure for laparoscopic infrapyloric area lymph node (LN) dissection with No. 14v enlargement, which is complicated for patients with advanced lower gastric cancer (GC) (Xu et al., World J Gastroenterol 13:5133–5138,[2007]; Masuda et al., Dig Surg 25:351–358,[2008]; An et al., Br J Surg 98:667–672,[2011]].

Methods. From April 2008 to December 2014, 1096 patients with GC underwent laparoscopy-assisted radical distal gastrectomy in our department. According to the Japanese GC treatment guidelines, D2 (+No. 14v) may be beneficial in tumors with apparent metastasis to the No. 6 nodes (Japanese Gastric Cancer Association, Gastric Cancer 14:113–123,[2010]). Thus, 151 advanced lower GC patients with apparent metastasis to the No. 6 nodes underwent additional No. 14v LN dissection. We dissected infrapyloric area LNs with No. 14v dissection from the left to the right side (i.e., middle colic vein approach).

Results. Mean operation time was 22.8 ± 10.0 min, mean blood loss was 17.1 ± 14.6 ml, and mean times to first flatus, fluid diet, and soft diet were 3.7 ± 1.2 days, 5.0 ± 1.7 days, and 8.4 ± 1.6 days, respectively. A mean of 33.7 ± 11.2 LNs were retrieved, including 3.9 ± 2.7 No. 6 LNs and 2.0 ± 1.6 No. 14v LNs. Of 151 patients, 26 had No. 14v metastasis (17.2 %), and 43 (28.5 %) were accompanied by an extensive infrapyloric area nodal involvement. The overall postoperative morbidity rate was 10.6 % (16 of 151). At a median follow-up of 56 months (range 5–84 months), cumulative 3-year overall survival was 56.0 %.

Conclusions. Although it remains controversial whether prophylactic No. 14v dissection improves survival, laparoscopic infrapyloric area LN dissection using a middle colic vein approach may be safely achieved and is more convenient for advanced lower GC.

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