



ORIGINAL ARTICLE – GASTROINTESTINAL ONCOLOGY

Intragastric Single-Incision Laparoscopic Surgery for Gastric Leiomyoma: A Stepwise Approach

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BACKGROUND

Laparoscopic wedge resection is commonly used as the standard treatment for small gastric subepithelial lesions suspected to be a gastrointestinal stromal tumor (GIST).¹ Despite the development of intragastric endoscopic-assisted surgery, resection near the esogastric junction (EGJ) remains challenging.^{2,3} The use of single-incision laparoscopic surgery could ensure better EGJ recognition and safer resection. We report on a successful transgastric single-incision laparoscopic and endoscopic cooperative surgery for a suspected GIST of the EGJ.

PATIENT

A 51-year-old male with dysphagia was diagnosed with a tumor near the EGJ. Initial assessment showed a 35 mm hypoechoic submucosal tumor located at the lesser curvature of the EGJ, suspected to be a GIST. The lesion was only visible with the endoscope in retroflexion, which made the endoscopic resection unfeasible.

TECHNIQUE

First, laparoscopy confirmed the absence of local invasion or peritoneal disease. A single-incision device was placed in the gastric cavity through a 3-cm-wide gastrotomy in the antrum after skin fixation of the stomach wall to prevent tearing. The suspected GIST was identified and a stapler was placed under the laparoscopic vision and retroflexed endoscopic control, ensuring the absence of EGJ stenosis. Resection was performed, using two loads of staples, while removing the tumor and the muscular layer. The patient was discharged on day 4 and pathological examination confirmed a leiomyoma resection (including muscular layer) with clear margins.

CONCLUSIONS

Transgastric single-incision laparoscopic and endoscopic cooperative surgery allowed optimal visualization and control when performing a stapled mucosal and muscular-layer resection. This procedure only required a limited single gastrotomy and protected the gastric wall from perioperative tearing and the abdominal cavity from contamination.

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