A 26-year-old woman presented to our hospital with intermittent dysphagia lasting 1 month. A contrast-enhanced computed tomography (CT) scan revealed a low-density accumulation at the esophagogastric junction, extending from the mediastinum to the abdominal cavity (Fig. 1a). Endoscopic examination displayed a large submucosal bulge with a smooth mucosal surface, located 31 cm from the incisors (Fig. 1b). Three-dimensional reconstruction techniques were utilized to assess the size and pinpoint the precise location of the lesion (Fig. 1c). Endoscopic ultrasound confirmed its origin from the muscularis propria, showing hypoechoic changes (Fig. 1d).

Under general anesthesia, and following submucosal injection, an endoscopic incision was made in the lower esophagus using a HookKnife J (Olympus, Tokyo, Japan). The esophageal segment of the lesion was detached from the muscularis propria, peeled off, and pushed into the gastric cavity using snare assistance (Fig. 1e, Fig. 2). It was discovered that the gastric segment originated from the serosal layer of the gastric fundus. Another snare was then employed to lift the tumor, enhancing the visibility of the field and facilitating the complete resection of the remaining part (Fig. 1f, Video 1). Any bleeding encountered during the procedure was controlled. The excised lesion was segmented and removed (Fig. 1g). Finally, the wound was sutured using the kissing suture technique, and a gastrointestinal decompression tube was placed (Fig. 1h).
logical diagnosis was esophageal leiomyoma. No postoperative complications were observed, and the ulcer healed without perforation, as confirmed by endoscopy and CT examination 3 days post-procedure.

The esophagogastric junction (EGJ) connects the esophagus to the stomach. Due to its unique anatomical structure, the EGJ has a narrow lumen with sharp angles, posing technical difficulties for endoscopic surgery and increasing the risk of complications like postoperative perforation. Endoscopic resection of submucosal tumors originating from the muscularis propria in this region is particularly challenging [1]. Additionally, preserving the functional integrity of the cardiac sphincter is crucial [2, 3]. In this case, a multiple snare-assisted push-pull technique was employed, not only preserving the integrity of the cardia but also providing adequate space for complete tumor resection. We suggest that this innovative method offers a safe and effective approach for the resection of large submucosal tumors at the esophagogastric junction.

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Conflict of Interest

The authors declare that they have no conflict of interest.

The authors

Jiyu Zhang‡, Miao Shi‡, Dan Liu‡, Lixia Zhao‡, Bingrong Liu‡
1 Department of Gastroenterology and Hepatology, The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China

‡ Jiyu Zhang and Miao Shi contributed equally and share the first author.

Corresponding author

Bingrong Liu, MD, PhD
Department of Gastroenterology and Hepatology, The First Affiliated Hospital of Zhengzhou University, 450052, Jianshe East Road No.1, Zhengzhou, China
fcclibr@zzu.edu.cn
References


Bibliography

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