Endoscopic full-thickness resection with omental patch closure for a gastric stromal tumor in the gastric cardia

Gastrointestinal stromal tumors (GISTs) of ≥2 cm should be resected because of their malignant potential [1]. Recently, endoscopic techniques for en bloc resection of GISTs have been described, including endoscopic submucosal dissection (ESD) and full-thickness resection (EFTR). Closure of the resection site, usually accomplished with clips or endoscopic suturing, is paramount to avoid peritonitis [2, 3]. Prior feasibility studies have shown that omental patch closure appears to be effective for closure of gastric perforations [4, 5]. Data on the use of this technique for the closure of defects after EFTR in the gastric cardia are not yet available.

We describe the case of an 82-year-old man with a gastric cardia mass found on a computed tomography (CT) scan of the abdomen (▶Fig. 1). Upper gastrointestinal endoscopy and endosonography showed a subepithelial mass arising from the muscularis propria (▶Fig. 2). Fine needle biopsy confirmed the diagnosis of a GIST.

The mass was approached in retroflexed fashion for a standard ESD technique and it was evident that part of the mass was clearly originating from the muscularis propria. The mass was then dissected off the muscularis propria, leaving approximately a 12-mm defect in the muscularis propria and another smaller defect lateral to this. The defects could not be reliably closed with endoscopic suturing owing to their difficult location. A double-channel endoscope and forceps were used to pull omental fat through the larger muscular defect and this was patched to the gastric mucosa using multiple through-the-scope clips (Resolution; Boston Scientific, Marlborough, Massachusetts, USA) (▶Fig. 3; ▶Video 1). The smaller muscular defect was closed using endoscopic suturing (Apollo Endosurgery, Austin, Texas, USA). Pathology showed a GIST with negative margins (▶Fig. 4). The patient had no adverse events and there has been no recurrence over a follow-up period of 14 months.

After en bloc EFTR of a gastric GIST in a difficult location, such as the gastric cardia, a combination of omental patch closure and endoscopic suturing is a feasible method for defect closure.

Competing interests

Mouen A. Khashab is a consultant and on the medical advisory board for Boston Scientific and Olympus America. Vivek Kumbhari is a consultant for ReShape Life Sciences, Apollo Endosurgery, Medtronic, and Boston Scientific, and receives consulting fees from Pentax Medical and C2 Therapeutics. Anthony N. Kalloo is a founding member and equity holder for Apollo Endosurgery. The other authors have nothing to declare. There is no funding support related to this submitted manuscript.

E-Videos

E278

KerdSirichirarat Tossapol et al. EFTR for GIST in the gastric cardia... Endoscopy 2019; 51: E278–E279
The authors

Tossapol Kerdsirichairat, Kia Vosoughi, Yervant Ichkhanian, Saowanee Ngamruengphong, Anthony N. Kalloo, Vivek Kumbhari, Mouen A. Khashab
Division of Gastroenterology and Hepatology, Department of Medicine, Johns Hopkins Medical Institutions, Baltimore, Maryland, USA

Corresponding author

Mouen A. Khashab, MD
Department of Therapeutic Endoscopy, Johns Hopkins Hospital, Shiekh Zayed Building, Division of Gastroenterology and Hepatology, 1800 Orleans Street, Suite 7125G, Baltimore, MD 21287, USA
Fax: +1-443-683-8335
mkhasha1@jhmi.edu

References