A novel endoloop pretest to treat severe gastroesophageal reflux disease symptoms before anti-reflux mucosectomy

A 44-year-old man with a 6-year history of gastroesophageal reflux disease (GERD; score of 30 on GERD questionnaire) underwent an upper gastrointestinal (GI) endoscopy, which revealed esophagitis (Los Angeles grade A). After failure of maximal medical therapy for GERD, the patient underwent a new minimally invasive, reversible endoscopic treatment, with the aim of predicting whether his symptoms could be alleviated, in order

to ultimately decide whether to undergo irreversible surgery or endoscopic treatment.

A novel LeCamp endoloop (Leo Medical, China) (►Fig. 1) was inserted into the gastric cardia using forceps passed through a single-channel endoscope (►Fig. 2a). After adjustment of the location and angle of the endoloop, it was anchored onto the edge of the gastric cardia with a clip (►Fig. 2b) and another one or two clips were inserted to hold the opposite side of endoloop about half-way round the circumference (►Fig. 2c). The hook was then connected with the endoloop (►Fig. 2d), which was tightened with a slight pulling together of all the clips (►Fig. 2e). The patient did not experience any pain and was safely discharged the same day.

After the treatment, the patient showed significant improvement in his symptoms with a score of 4 points on the GERD questionnaire and was able to discontinue daily use proton pump inhibitors. At 1-month follow-up, the patient complained that the symptoms were gradually re-appearing, repeat upper GI endoscopy revealed the endoloop and the clips had dropped off. After the patient had given his consent, anti-reflux mucosectomy (ARMS) was performed using standard endoscopic submucosal dissection [1]. At the 3-month follow-up, he reported significant reduction in GERD questionnaire scores and his upper GI endoscopy showed a tight gastroesophageal junction (►Fig. 3).

In this patient, we used a novel pretest to narrow the gastric cardia before he underwent ARMS, which suggests that this

► Fig. 1 The LeCamp endoloop.

► Fig. 2 White-light endoscopy views showing: a the gastric cardia; b the endoloop being fixed with the first clip using forceps passed through a single-channel endoscope; c a second clip being applied halfway around the circumference of the cardia; d the hook being connected to tighten the endoloop; e the gastric cardia in retroflexed view after the endoloop has been fixed and tightened.

► **Fig. 3** Endoscopic appearance 3 months after undergoing anti-reflux mucosectomy showing a tight gastroesophageal junction.

Step5: Reverse
and observe

► **Video 1** A novel endoloop pretest to treat severe gastroesophageal reflux disease symptoms before anti-reflux mucosectomy in a 44-year-old man.

new technique may be a simple and reversible method to control symptoms temporarily in GERD patients, while they decide whether to undergo irreversible surgery or endoscopic treatment.

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Competing interests

None

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Reference

- [1] Inoue H, Ito H, Ikeda H et al. Anti-reflux mucosectomy for gastroesophageal reflux disease in the absence of hiatus hernia: a pilot study. *Ann Gastroenterol* 2014; 27: 346 – 351

Bibliography

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