

A novel approach to the removal of a silastic band via the peroral endoscopic tunneling–silastic bandectomy technique

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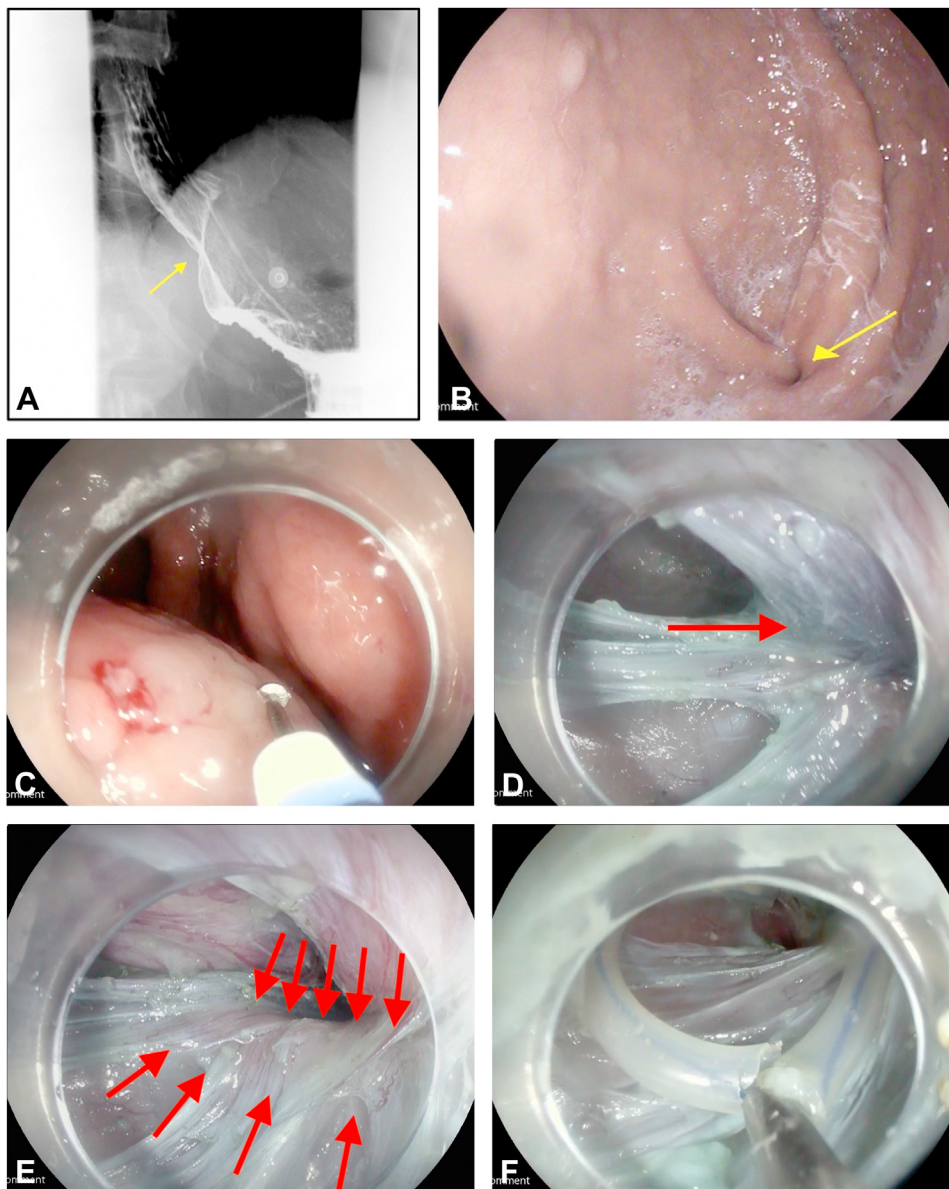


Figure 1. Endoscopic removal of a silastic band causing a vertical banded gastroplasty stenosis by using the peroral endoscopic tunneling–silastic bandectomy technique. Upper GI series (**A**) and endoscopy (**B**) show a stenosis at the outlet of the vertical banded gastroplasty pouch. (**C**) Tunneling was started 5 cm proximal to the location of the band with injection and dissection. (**D**) To assist with locating the band, the stenosis area was injected with dyed saline solution from the mucosal side and the injected submucosa was found within the tunnel. (**E**) The band was identified as a tubular structure surrounded by fibrotic tissue. After dissecting the surrounding tissue, the band was removed with a forceps and loop cutter (**F**).

BACKGROUND

Managing outlet stenosis in patients who have undergone vertical banded gastroplasty (VBG) can be challenging.^{1,2} Endoscopic band removal can provide a noninvasive method to manage this serious adverse event. Transgastric cutting of the band has been reported, but this can be challenging if the band is not easily visible.³ We report a novel method for bandectomy using the peroral endoscopic tunneling–silastic bandectomy (POET-S) technique in a patient without an exposed band (Video 1, available online at www.giejournal.org).

CASE PRESENTATION

A 65-year-old woman who underwent a VBG in 1990 presented with inability to maintain oral feeding. Esophagogastroduodenoscopy revealed outlet obstruction secondary to the silastic band (Fig. 1A and B). Multidisciplinary discussions determined the patient was not a surgical candidate. Transgastric cutting of the band was initially discussed, but because there was significant edema around the band site, we believed this would not be a safe option since the exact location of the band could not be delineated. Thus, endoscopic tunneling to access the band was the chosen method.

An initial longitudinal mucosal incision was performed using the ERBE-T type knife (Erbe USA Inc, Marietta, Ga, USA) after a submucosal lift was created 5 cm proximal to the band (Needle Master, Olympus, Center Valley, Penn, USA). After an adequate mucosotomy was created (Fig. 1C), the gastric submucosa was entered, and submucosal dissection was then carried out toward the band by using a combination of dissection in the “DryCut” setting and repeated injection of dyed saline solution. To ensure correct spatial orientation, we injected dyed solution from the mucosal side at the approximate location of the band to guide our final submucosal dissection (Fig. 1D). The band was then easily identified (Fig. 1E), and the muscle was carefully dissected using the “EndoCut” setting until the band was completely exposed. A grasper was used to break the silicone cover over the band. The suture within the silastic band was then cut with endoscopic loop cutters and removed (Fig. 1F). The initial mucosal incision was then easily sutured with the Apollo Overstitch (Apollo Endosurgery, Austin, Tex, USA). The entire procedure was completed in 65 minutes.

The patient had no adverse events afterward and was able to tolerate oral feeding by the next day. The follow-up endoscopy 3 weeks later showed widely patent lumen at the site of the previous silastic band. The patient's gastrointestinal symptoms remained resolved 3 months postprocedure.

CONCLUSION

Here, we report a novel case of using submucosal tunneling to assist in the removal of a silastic band. The POET-S technique provides a less-invasive and effective modality for the management of silastic band–related stricture. Peroral endoscopic tunneling methods used in this case could be applied for removal of other extraluminal foreign bodies.

DISCLOSURE

Dr Abidi is a consultant for Apollo Endosurgery (endoscopic suturing, product development) and Conmed (product development). Dr Jawaid is a consultant for Conmed and Lumendi.

Abbreviations: POET-S, peroral endoscopic tunneling–silastic bandectomy; VBG, vertical banded gastroplasty.

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