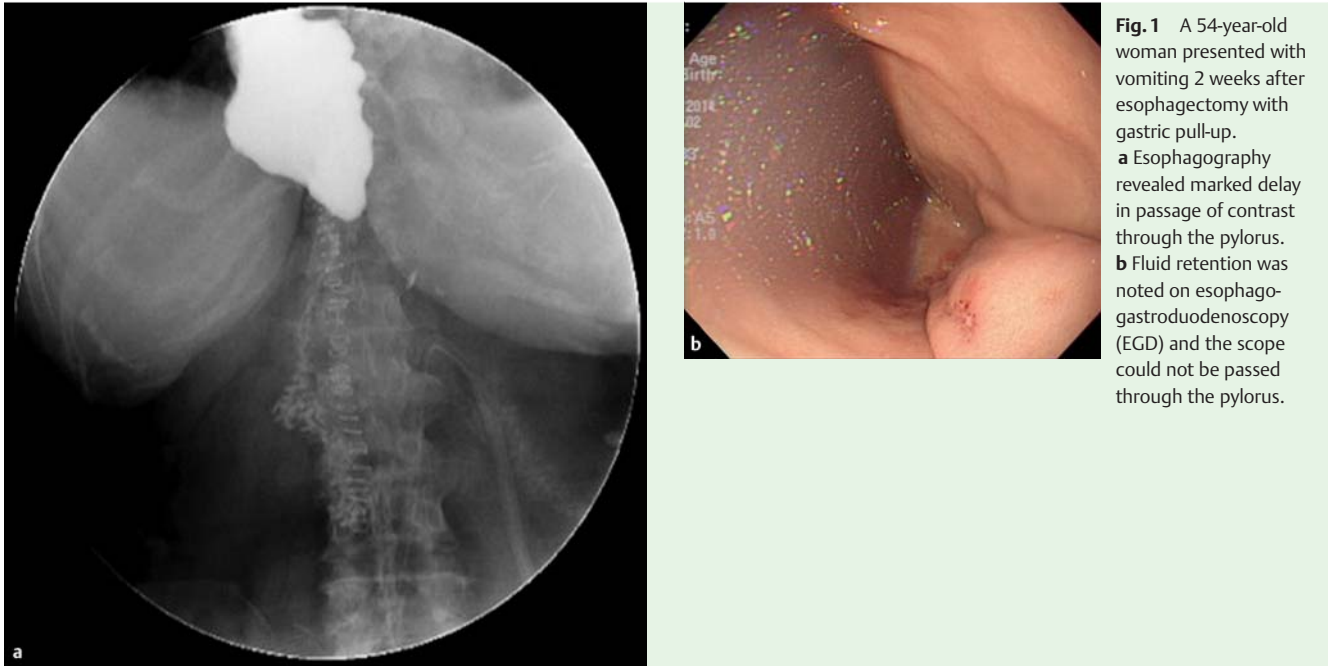


## Endoscopic pyloromyotomy for postesophagectomy gastric outlet obstruction



**Fig. 1** A 54-year-old woman presented with vomiting 2 weeks after esophagectomy with gastric pull-up. **a** Esophagography revealed marked delay in passage of contrast through the pylorus. **b** Fluid retention was noted on esophagogastroduodenoscopy (EGD) and the scope could not be passed through the pylorus.

Postesophagectomy gastric outlet obstruction occurs in 20%–30% of patients who undergo esophagectomy and is associated with significant morbidity and delayed recovery [1]. Recently, endoscopic pyloromyotomy, also called gastric peroral endoscopic myotomy (POEM), has been reported, in pigs and in a patient with refractory diabetic gastroparesis [2, 3]. We report a case of postesophagectomy delayed gastric emptying that was successfully treated with endoscopic pyloromyotomy.

A 54-year-old woman was referred to the gastroenterology department because of vomiting 2 weeks after esophagectomy with gastric pull-up for esophageal squamous cell carcinoma. Esophagography revealed marked delay in passage of contrast through the pylorus and the gastroscope could not be passed through the pylorus (Fig. 1). On postoperative day 17, endoscopic balloon dilation was performed and it was possible to pass the scope through the pylorus. However, 3 weeks later (postoperative day 39), she visited our clinic because of recurrent

vomiting. Esophagogastroduodenoscopy (EGD) revealed significant food stasis in the pulled-up stomach and again the endoscope could not be passed through the pylorus.

Endoscopic pyloromyotomy was performed with the patient under conscious sedation. Saline solution mixed with indigo carmine was injected on the greater curvature 5 cm proximal to the pylorus. A 1.5-cm mucosal incision was made (Fig. 2) using a DualKnife (KD-650L; Olympus, Tokyo, Japan). Submucosal tunneling towards the pylorus was done using Endocut I (E2-D2-I3) (VIO 300D; ERBE, Tübingen, Germany) and Swift Coag modes (E4-40W). When the scope reached the pylorus, selective circular and/or oblique myotomy was done. The outer longitudinal muscle was preserved.

### Video 1

Endoscopic pyloromyotomy carried out to treat postesophagectomy delayed gastric emptying.

The mucosal entry was then closed using four endoscopic clips (Video 1). On the following day, fluoroscopy showed significant improvement in passage of contrast (Fig. 3) and the gastroscope (GIF-H260; Olympus) could pass smoothly through the pylorus. The patient was started on a liquid diet and was discharged the next day. She remains well 10 weeks after the procedure and appropriately tolerates a general diet.

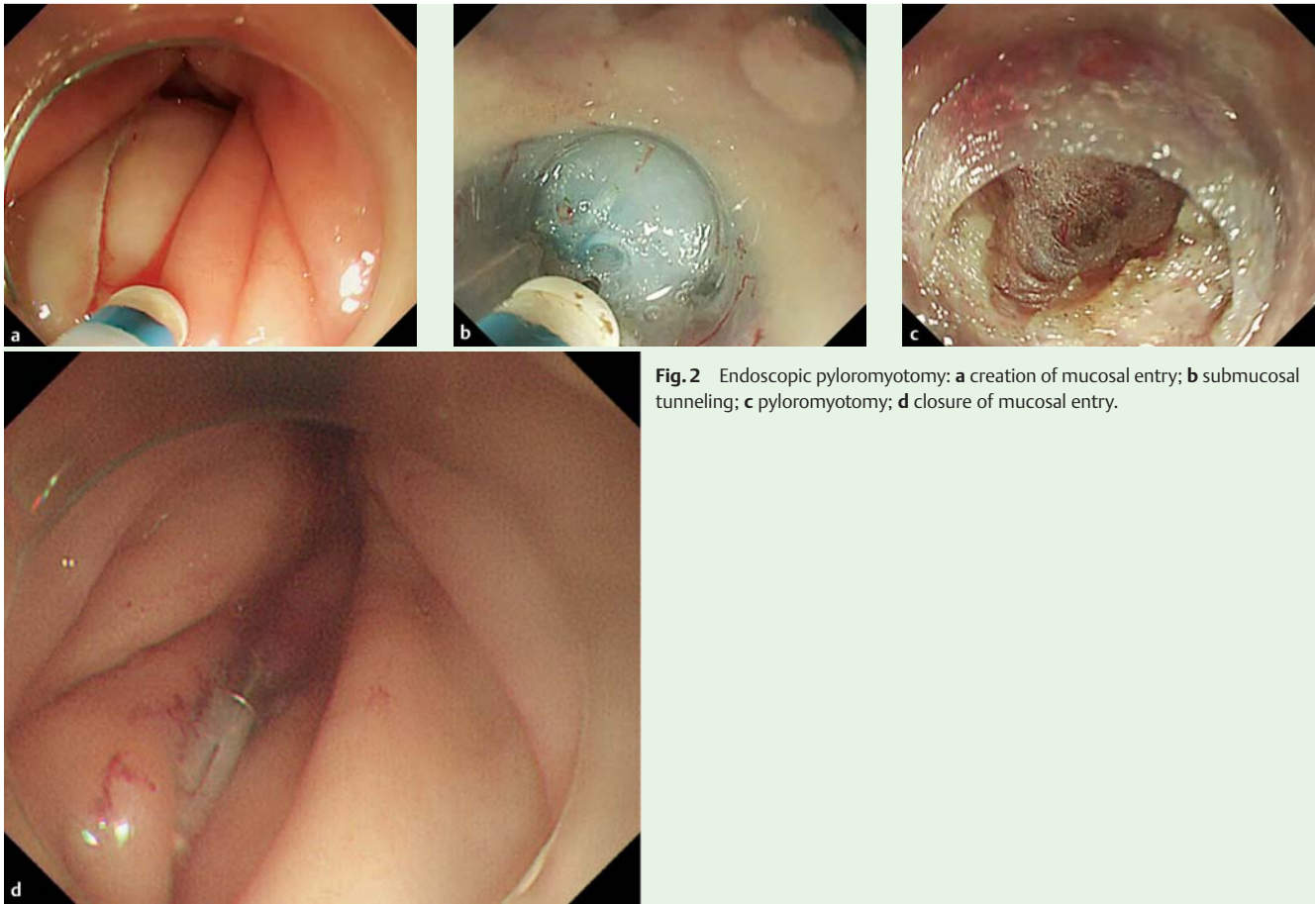
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**Competing interests:** None

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**Fig. 2** Endoscopic pyloromyotomy: **a** creation of mucosal entry; **b** submucosal tunneling; **c** pyloromyotomy; **d** closure of mucosal entry.



**Fig. 3** Fluoroscopy on the day after endoscopic pyloromyotomy showed significant improvement in the passage of contrast.

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