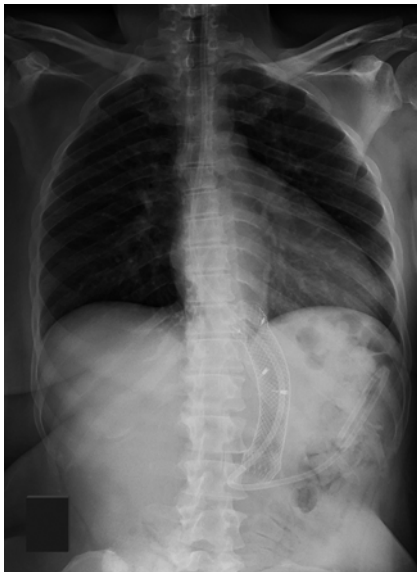
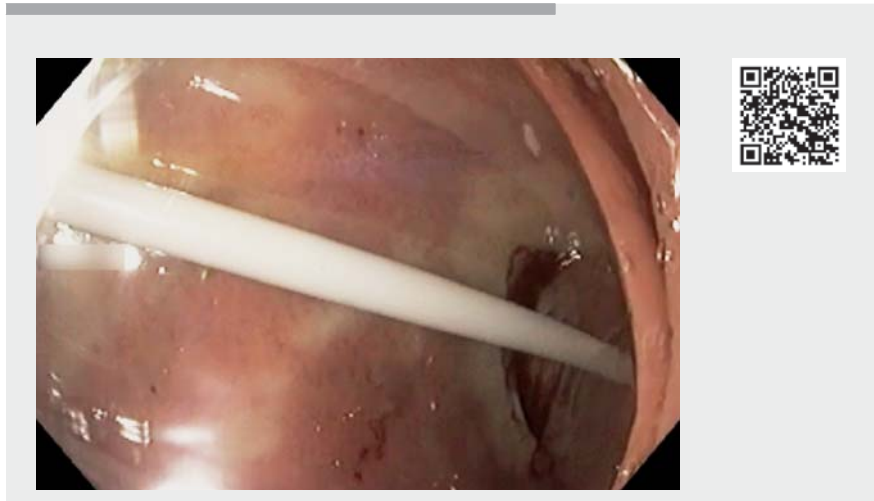


Endoscopic approach to complex gastric tube stricture after laparoscopic sleeve gastroplasty: a case report



► **Fig. 1** Fluoroscopic aspect after the first endoscopic stent placement.



► **Video 1** Complex strictures after gastrointestinal surgery are challenging for endoscopic management. In this case report with video, we highlight different therapeutic endoscopic options that might be used in these cases.

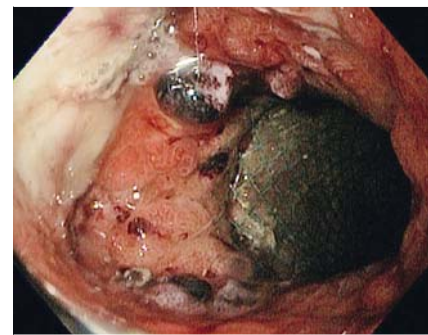
As bariatric surgery becomes more prevalent, endoscopists commonly face adverse events now that this minimally invasive treatment has little morbidity and great efficacy [1]. Gastric tube stricture is one of the most common adverse events, occurring in 0.1 to 3.9% of patients [2, 3]. Mechanical stricture (gastric sleeve) and axis deviation are the entities that can cause obstruction [2].

Endoscopic treatment often includes pneumatic balloon dilation and/or self-expandable metal stent (SEMS) placement with great success rates [3, 4]. Recently, endoscopic tunneled stricturotomy has been adopted as a promising technique [5].

We present a case (► **Video 1**) of a 55-year-old woman with morbid obesity (body mass index of 43.9 kg/m²). She underwent a laparoscopic sleeve gastrectomy and developed progressive dysphagia in the follow-up. Upper gastrointestinal (GI) endoscopy and contrast X-ray image revealed gastric tube stricture and axis deviation.



► **Fig. 2** Self-expandable metal stent (SEMS) fixed to the nasoenteric catheter by suture threads and metallic clips to avoid stent migration.



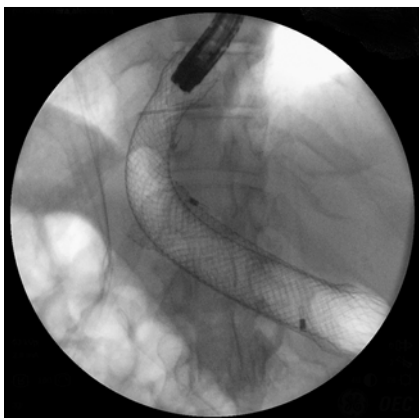
► **Fig. 3** Tissue hyperplasia in the proximal stent end (uncovered area), precluding its removal.

An endoscopic tunneled stricturotomy with full-thickness dissection was performed 6 months after the surgery, although without technical or clinical success.

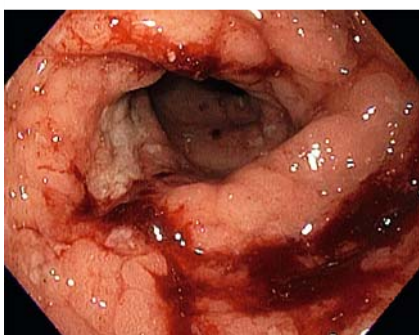
A new endoscopic approach was performed with pneumatic balloon dilation (30 mm) followed by placement of a 23 × 105-mm partially covered esophageal SEMS (PCSEMS) (► **Fig. 1**). To avoid stent migration, a nasoenteral feed tube

with suture threads was fixed to the stent using metallic clips (► **Fig. 2**). After this procedure, the patient improved clinically and tolerated a soft oral diet well.

At 18 days after placement, intense tissue hyperplasia in the proximal and distal portions of the stent (uncovered areas) made removal impossible (► **Fig. 3**). So a 23 × 155-mm fully covered esophageal stent (FCSEMS) was placed over the first stent (stent-in-stent technique) (► **Fig. 4**). After 1 week, the patient pre-



► **Fig. 4** Fluoroscopic aspect of the stent-in-stent technique.



► **Fig. 5** Stricture area after the removal of both stents.




sented good acceptance of a soft oral diet and both stents were removed endoscopically without complications (► **Fig. 5**). Currently (2.5 months after the last procedure), the patient remains with a good soft oral diet intake and stable weight. She is satisfied with the improvement in her quality of life and no further endoscopic intervention is necessary.

Endoscopy_UCTN_Code_TTT_1AO_2AH

Competing interests

The authors declare that they have no conflict of interest.

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