Endoscopic ultrasound-guided jejuno-jejunal anastomosis for malignant outlet obstruction after total gastrectomy

Endoscopic ultrasound (EUS)-guided gastrointestinal anastomosis with a lumen-apposing metal stent (LAMS) is an effective alternative to intraluminal stenting for upper gastrointestinal obstruction [1, 2]. Recently, EUS-guided jejuno-jejunal anastomosis (EUS-JJA) has been reported for adhesive obstruction after gastric bypass and afferent loop syndrome [3–5].

A 75-year-old man presented with progressive epigastric pain and weight loss due to advanced malignancy after a previous total gastrectomy. Peritoneal recurrence had been diagnosed 2 years after the gastrectomy, and he had received chemotherapy, achieving stable disease for more than 3 years. On this presentation, as celiac trunk infiltration had been found on a recent computed tomography (CT) scan, it was agreed after multidisciplinary discussion that EUS-guided celiac plexus neurolysis should be performed; however, this failed to provide pain relief. At the time of EUS, a tight jejunal stenosis was observed 8 cm below the esophagojejunal anastomosis (▶Fig. 1). Given the persistence of symptoms, together with vomiting, the patient underwent EUS-JJA 2 weeks later, after receiving a detailed explanation of the off-label use of the LAMS. A nasobiliary tube was advanced through the stricture and used to fill the jejunal limbs with a methylene blue–saline solution to look for an adequate operative window. A 19-gauge needle was then inserted into the target loop to check for methylene blue aspiration and to inject contrast. A 20 × 10-mm electrocautery-enhanced LAMS (HotAXIOS; Boston Scientific, Natick, Massachusetts, USA) was inserted “free-hand” and then dilated up to 18 mm (▶Fig. 2 and ▶Fig. 3a, b). A pediatric gastroscope was finally advanced through the LAMS to assess the post-anastomotic jejunal limb (▶Fig. 3c). On the first postoperative day, a contrast study showed restoration of bowel transit (▶Video 1) and oral feeding was resumed. The patient tolerated the procedure well and returned home 5 days later. He maintained adequate oral feeding and regained 2 kg of weight during the following 2 weeks, allowing chemotherapy to be restarted. Interestingly, he experienced significant improvement in pain control too.

EUS-JJA seems an effective treatment for malignant jejunal outlet obstruction.

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▶Fig. 1 Radiographic image following oral contrast showing a normal esophagojejunal anastomosis after total gastrectomy, with a dilated jejunal limb due to malignant obstruction.

▶Fig. 2 Endoscopic ultrasound image (inset: radiographic image) showing the deployment of the distal lumen-apposing metal stent (LAMS) flange.

▶Fig. 3 Endoscopic images showing: a the released lumen-apposing metal stent (LAMS) adjacent to the nasobiliary tube that had been placed through the stricture (inset: radiographic image); b the endoscopic ultrasound-guided jejuno-jejunal anastomosis after dilation; c the jejunal limb viewed through the LAMS using a pediatric gastroscope.
Competing interests

The authors declare that they have no conflict of interest.

The authors

Andrea Lisotti1, Claudio Calvanese1, Martina Valgiusti2, Igor Bacchilega3, Pietro Fusaroli1
1 Gastroenterology Unit, Hospital of Imola (BO), University of Bologna, Italy
2 Department of Medical Oncology, Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) IRCCS, Meldola (FC), Italy
3 Intensive Care Unit, Hospital of Imola (BO), University of Bologna, Italy

Corresponding author

Andrea Lisotti, MD
Gastroenterology Unit, Hospital of Imola (BO), University of Bologna, Via Montericco 4, 40026 Imola (BO), Italy
lisotti.andrea@gmail.com

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Video 1 Follow-up radiographic image 24 hours after the procedure showing normal passage of oral contrast medium through the jejunoo-jejunal anastomosis, thereby confirming restored bowel transit.