

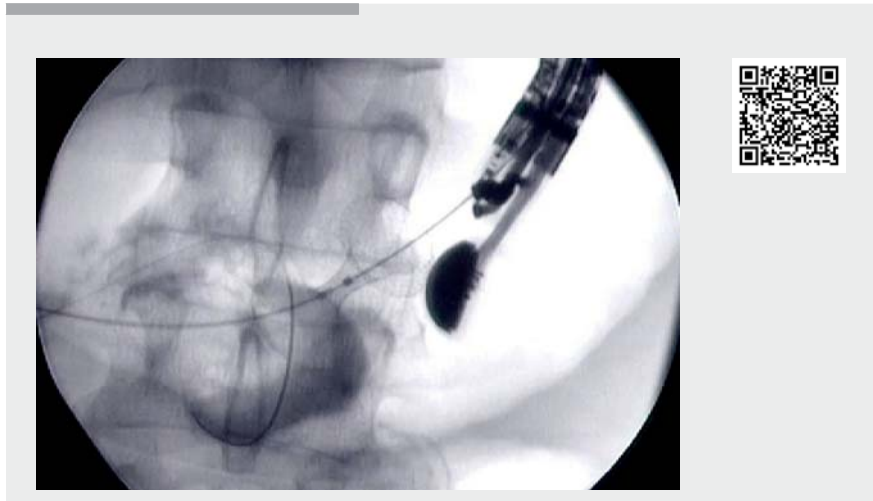
## First case of endoscopic ultrasound-guided gastrojejunal anastomosis for duodenal stricture in refractory Crohn's disease: a bridge toward inflammation control

Endoscopic ultrasonography-guided gastrojejunal anastomosis (EUS-GJA) was developed in 2015 using a lumen-apposing metal stent (LAMS) [1, 2]. Its application was described for malignant bowel obstruction and a few cases of benign obstruction [3, 4]. Crohn's disease is an inflammatory bowel disease that could induce inflammatory or fibrotic bowel strictures, the management of which includes medical therapy, endoscopic dilation or surgical resection [5]. We report a case of duodenal stricture in severe Crohn's disease and short bowel syndrome.

A 51-year-old man presented with a repeat episode of bowel obstruction complicating severe Crohn's disease. Medical history included short bowel syndrome due to surgically resected strictures. In June 2017, after failure of medical optimization, the multidisciplinary inflammatory bowel disease team proposed EUS-GJA.

EUS-GJA was performed with CO<sub>2</sub> insufflation by an endoscopist expert (▶ **Video 1**). There was no adverse event. A liquid diet was started for 48 hours, followed by a mixed diet for the next 5 days. The patient was discharged 1 week later. Medical therapy with infliximab (10 mg/kg) and methotrexate was started at the same time.

Between August and September 2017, the patient had two recurrences of occlusion downstream of the LAMS, confirmed by computed tomography (▶ **Fig. 1**). The first recurrence was managed by endoscopic dilation through the LAMS (▶ **Fig. 2**), and the second by covered enteric stent (▶ **Fig. 3**). In January 2018, endoscopy showed spontaneous migration of all stents (two enteral, one LAMS) into the stomach, and spontaneous closure of the GJA. After 1 year of follow-up, the patient recovered a normal duodenal pathway and inflammatory dis-



▶ **Video 1** Endoscopic management of a symptomatic duodenal stricture in refractory and severe Crohn's disease with endoscopic ultrasound-guided gastrojejunal anastomosis.



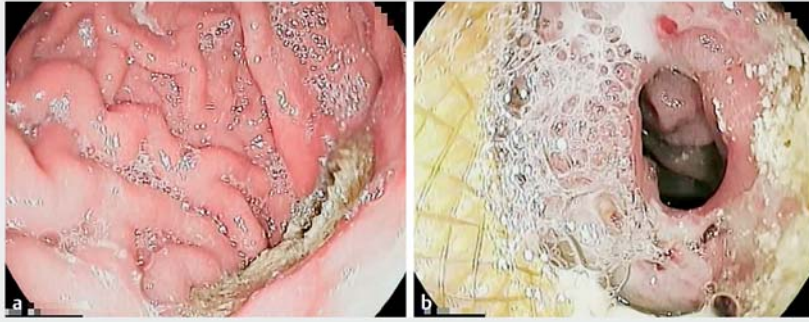
▶ **Fig. 1** Computed tomography view. **a** Recurrence of duodenal occlusion downstream of the lumen-apposing metal stent (LAMS). **b** Gastrojejunal anastomosis with LAMS.

ease was controlled with medical therapy. This case suggests a new application of LAMS for EUS-GJA in a benign indication. For refractory stricture in Crohn's disease with short bowel syndrome, EUS-GJA allowed management of bowel occlusion until inflammatory disease was stabilized by medical treatment.

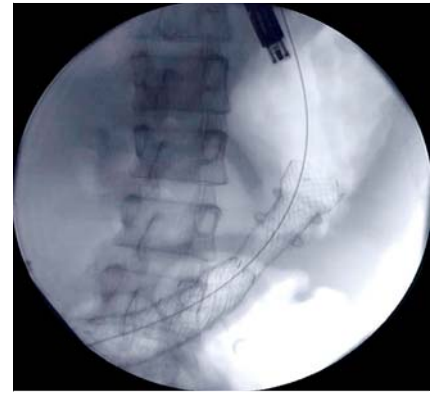
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### Competing interests

Prof. Barthet and Dr. Gonzalez are consultants for Boston Scientific. Dr. Serrero is a consultant for AbbVie, Takeda, and Janssen, and speaker for AbbVie, Takeda, Janssen, and MSD.



► **Fig. 2** Endoscopic view of the gastrojejunal anastomosis. **a** Proximal flange of the lumen-apposing metal stent (LAMS) in the stomach. **b** Visualization of the jejunum through the LAMS.



► **Fig. 3** Endoscopic management of occlusive recurrence with a covered enteric stent through the lumen-apposing metal stent.

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## Bibliography

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