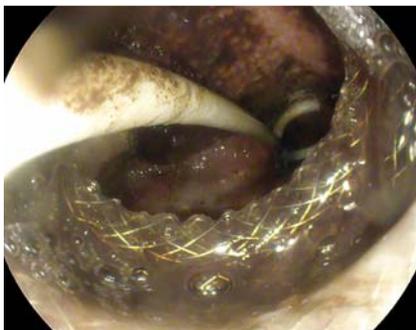


Gastric leak closure after the misdeployment of a lumen-apposing metal stent

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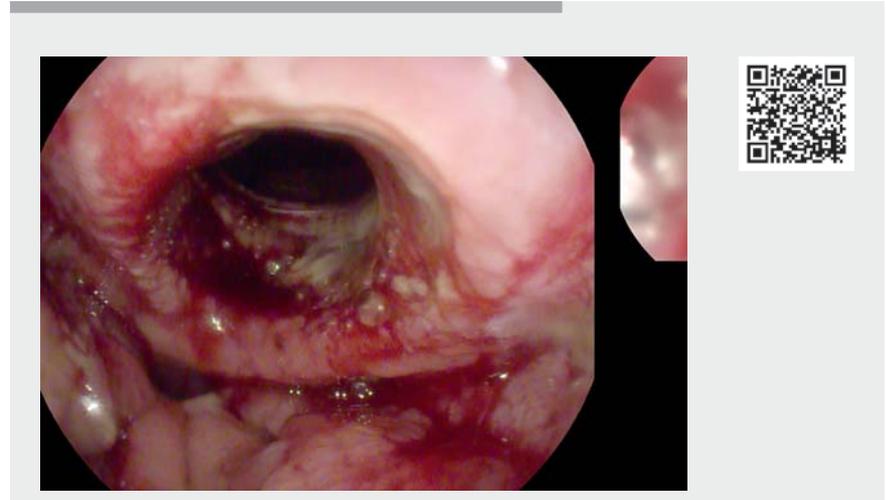
► **Fig. 1** Computed tomography scan showed the lumen-apposing metal stent and the pigtail stent close to the hepatic hilus.



► **Fig. 2** Endoscopic view, showing malposition of the lumen-apposing metal stent and pigtail stent in the abdominal cavity.

Endoscopic ultrasound-guided cystogastrostomy (EUS-CG) represents the main therapeutic modality for treatment of pancreatic fluid collections [1, 2]. While much has been written regarding technical advantages of lumen-apposing metal stents (LAMSs), there are limited data on the complications, which range from 7% to 15% [3, 4].

A 66-year-old woman had post-endoscopic retrograde cholangiopancreatography necrotizing pancreatitis and symptomatic pancreatic fluid collection that caused compression and dislodgment of both the stomach and duodenum. She underwent EUS-CG with place-



► **Video 1** Gastric defect after lumen-apposing metal stent misdeployment sutured using the OverStitch system (Apollo Endosurgery, Austin, Texas, USA).

ment of a 20 × 10 mm LAMS, followed by placement of a plastic double-pigtail stent inside the LAMS.

The day after the procedure, she experienced progressive epigastric pain and vomiting with abdominal tenderness. A computed tomography scan confirmed the suspicion of LAMS dislocation (► **Fig. 1**).

Once in our hospital, an upper endoscopy showed the proximal flange of the LAMS located just above the gastric cardia while the distal flange was displaced in the peritoneal space close to the hepatic hilus (► **Fig. 2**). The stents were removed, revealing a gastric parietal defect of 20–25 mm, surrounded by ulcerated tissue. The defect was immediately sutured using the OverStitch endoscopic suturing system (Apollo Endosurgery, Austin, Texas, USA) mounted on a single-channel gastroscope. Given the narrow space and the poor distensibility, four continuous running stitches were placed around the edge of the leak; however, a residual orifice of 3–4 mm was observed and an 11 mm over-the-scope clip, traumatic-type, was applied (► **Video 1**). Both endo-

scopic and fluoroscopic check showed no contrast extravasation outside the stomach.

The patient showed rapid clinical improvement and a new EUS-CG was performed a few days later.

LAMS misdeployment and migration are serious adverse events [3]. In most cases the diagnosis is immediate, but sometimes the instability and malposition toward the target lesion can lead to delayed migration, resulting in continuous passage of corrosive gastric fluid into the abdomen. After stent removal, the wall defect can be difficult to treat with either through-the-scope or over-the-scope clips, especially if a 20 mm LAMS has been used [4, 5]. As in the current case, the prompt application of a suturing device allows the closure, or at least the reduction of the parietal leak, avoiding further and more invasive intervention.

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Competing interests

The authors declare that they have no conflict of interest.

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