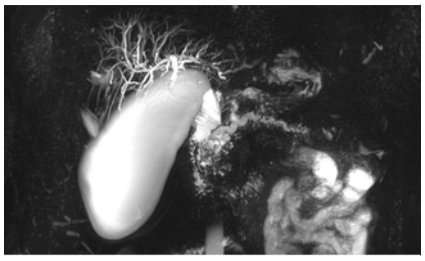
Endoscopic ultrasound-directed transgastric ERCP: esophageal stent to the rescue

A 39-year-old woman with history of Roux-en-Y gastric bypass surgery was referred to our department owing to a new onset of jaundice. Magnetic resonance cholangiopancreatography revealed a solid pancreatic head lesion measuring 35 mm causing common bile duct (CBD) dilation (▶ **Fig. 1**). After multidisciplinary discussion, endoscopic ultrasound (EUS)-directed transgastric ERCP (EDGE) was pursued.

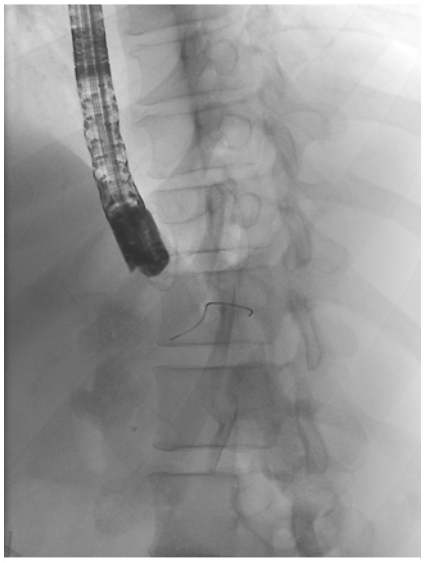
During EUS evaluation, fine-needle biopsy of celiac lymphadenopathies was performed. Subsequently, a 19-gauge fine-needle aspiration (FNA) needle was advanced through the gastric pouch into the gastric remnant. Contrast injection confirmed correct position of the needle inside the gastric remnant, and a 20-mm lumen-apposing metal stent (LAMS) was placed between the gastric pouch and gastric remnant (▶ **Fig. 2**). The LAMS was then dilated with a 20-mm balloon dilator.

Histology results confirmed lymph node metastasis from pancreatic adenocarcinoma and the patient returned 1 week later for endoscopic retrograde cholangiopancreatography (ERCP). However, LAMS positioning and loop formation in the gastric pouch did not allow passage of the duodenoscope into the gastric remnant despite guidewire and gastric overtube device assistance (▶ **Fig. 3**). After team discussion, a 23 × 125-mm fully-covered esophageal stent (Wallflex, Boston Scientific, Marlborough, Massachusetts, USA) was deployed in a trans-LAMS position. Subsequent stent dilation with a 20-mm balloon dilator allowed duodenoscope passage (▶ **Fig. 4**).

After the duodenoscope passage into the gastric remnant, biliary cannulation was achieved and cholangiogram confirmed CBD dilation with a distal stricture (▶ **Fig. 5**, ▶ **Video 1**). An 80 × 10-mm uncovered biliary metal stent was deployed with successful biliary drainage. The esophageal stent was then removed and the LAMS remained in situ without migration.

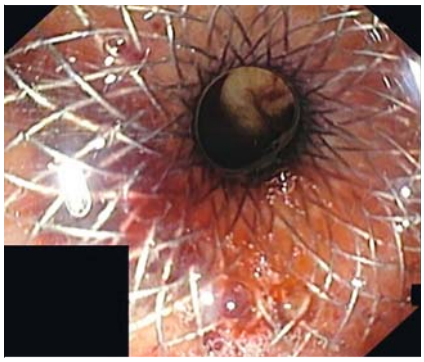


▶ **Fig. 1** Magnetic resonance cholangiopancreatography showed a solid pancreatic head lesion resulting in dilation of both the common bile duct and pancreatic duct.

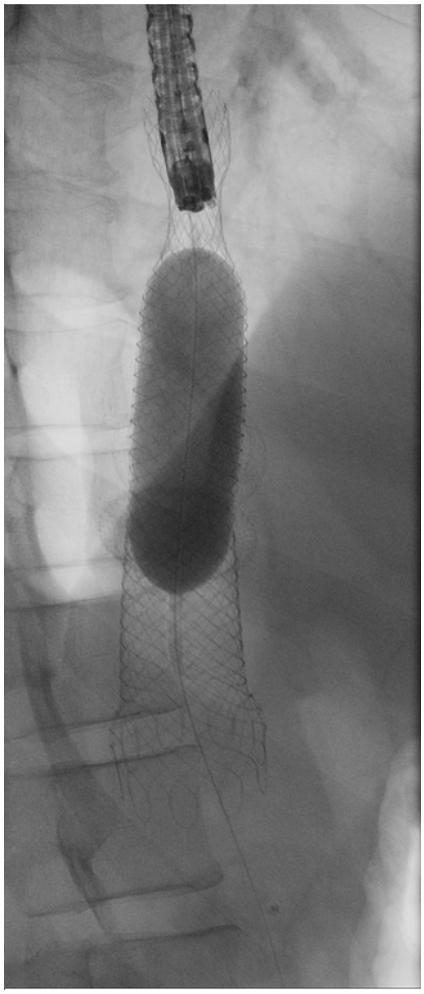


▶ **Fig. 3** Fluoroscopic view of the duodenoscope in the gastric pouch and its relation to the position of the lumen-apposing metal stent.

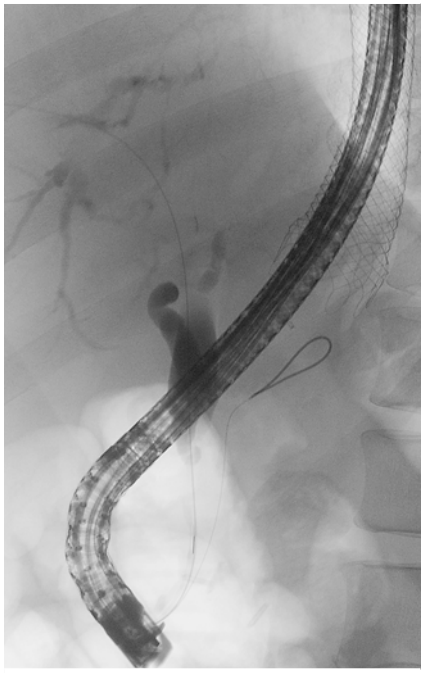
Other cases of difficult LAMS transposition during the EDGE procedure have been described [1]. Use of a gastric overtube device in order to avoid gastric pouch looping has been proposed. However, in this case, overtube use was unsuccessful given the LAMS positioning. Esophageal stent deployment aided duodenoscope passage by modifying the LAMS position and preventing duodenoscope loop formation.



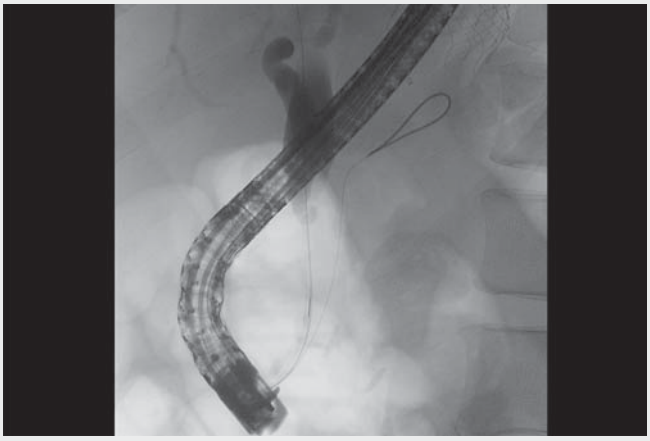
▶ **Fig. 2** Endoscopic view of the lumen-apposing metal stent position in the gastric pouch.



▶ **Fig. 4** Fluoroscopic view of the esophageal stent and lumen-apposing metal stent position during stent dilation.



▶ **Fig. 5** Fluoroscopic view showing a cholangiogram that confirmed a common bile duct dilation in relation to a distal stricture.



Video 1 Esophageal stent deployment in a trans-LAMS position allowed EUS-directed transgastric ERCP (EDGE) procedure rescue after difficult duodenoscope passage into gastric remnant due to lumen-apposing metal stent position and loop formation.

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Competing interests

The authors declare that they have no conflict of interest.

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Bibliography

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