Endoscopic ultrasound-guided duodenojejunostomy for management of refractory benign hepaticojejunal anastomotic stricture

A 45-year-old man was referred to our endoscopy unit because of a benign refractory hepaticojejunal anastomotic stricture. Previous transhepatic anastomotic dilations had failed to guarantee long-term patency. We proposed endoscopic ultrasound (EUS)-guided duodenojejunostomy created using a lumen-apposing metal stent (LAMS) to allow endoscopic management of the biliary enteric stricture. The efferent limb was filled with water and contrast medium from the percutaneous biliary transhepatic drainage (PTBD) (Fig. 1a, b). Then under EUS guidance, a LAMS (Hot-Axios, 10 × 15 mm) was deployed from the duodenal bulb into the target jejunal loop, using pure cut effect 4. A long 0.025-inch guidewire was coiled inside the loop. Under fluoroscopic and endoscopic guidance both flanges of the LAMS were successfully deployed without complications (Video 1).

In the same session, a fully covered self-expandable metal stent (FCSEMS) (Wallflex, Boston Scientific) was deployed across the stenosed biliary enteric anastomosis (Fig. 2).

The patient started on an oral diet the same day and he was discharged on day 1. At 6-month follow-up, upper endoscopy was performed with easy passage through the LAMS to remove the FCSEMS. Subsequent evaluation highlighted a good patency of the anastomosis with no secondary biliary stones (Video 1).

At 9 months after the EUS-guided duodenojejunostomy and 3 months from FCSEMS removal the patient is asymptomatic with normal liver test results. The LAMS is still in place.

Benign stricture may occur in up to 24% of cases after biliary enteric anastomosis [1], and PTBD is the gold standard treatment. EUS-guided anastomosis using a LAMS is becoming standardized in tertiary centers, for cholecystogastrostomy, gastrojejunal anastomosis, and in cases of altered anatomy [2, 3].

We report one of the first cases of EUS-guided duodenojejunostomy where a prior PTBD was used to fill the target jejunal loop with water and contrast medium. Direct EUS-guided transgastric hepatic injection in order to fill the jejunal loop is another viable option that would allow a single-operator single-session procedure.
Permanent duodenojejunostomy using a LAMS seems a feasible and safe technique for the management of bilioenteric anastomotic stricture in selected cases.

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Competing interests

The authors declare no conflict of interest.

References


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Fig. 2 Fluoroscopy showing the lumen-apposing metal stent (LAMS) and the fully covered self-expandable metal stent (FCSEMS) in place, with contrast opacification of the biliary tree, the efferent jejunal loop, and the stomach.

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