

## Endoscopic ultrasound-guided duodenojejunal anastomosis to treat postsurgical Roux-en-Y hepaticojjunostomy stricture: a dream or a reality?



**Fig. 1** Radiologic view of endoscopic ultrasound-guided puncture of the afferent loop in a 67-year-old man with recurrent cholangitis due to benign stricture of a bilioenteric anastomosis. The patient had a history of sclerosing cholangitis and left hepatectomy with Roux-en-Y bilioenteric reconstruction.



**Fig. 2** Radiologic view of the stent between the two loops.

Roux-en-Y hepaticojjunostomy stricture develops in 8% to 40% of patients, and re-intervention is frequently required [1,2]. Surgery remains the gold standard to treat this problem. We present the case of a 67-year-old man with recurrent cholangitis due to benign stricture of a bilioenteric anastomosis. The patient had a history of sclerosing cholangitis and left hepatectomy with Roux-en-Y bilioenteric reconstruction.

In another hospital, the patient had been treated via a percutaneous trans-hepatic approach with an uncovered self-expandable metal stent (u-SEMS). Biliary lithiasis and several episodes of cholangitis recurred soon thereafter. Many attempts were made to remove the stones radiologically, but they all failed. Percutaneous internal-external drainage was then placed temporarily, and the patient was referred to our tertiary endoscopic center.

A peroral endoscopic procedure with a rendezvous technique was attempted by passing a guidewire through the internal-external drainage, but it did not succeed because the anastomotic loop was too long and tortuous. Therefore, a new endoscopic approach with an endoscopic ultrasound (EUS)-guided transenteric anastomosis was used. After the injection of contrast medium into the jejunal loop, an EUS-guided puncture was performed from the duodenal portion with a 19-gauge needle (ECHO-19, Cook Medical) (► Fig. 1); a 0.035-guidewire was then placed into the jejunal loop, and a duodenojejunal fistula was created by pushing an 8.5-Fr cystoenterostome (XS 1341, Endoflex) on the guidewire. Finally, a 20-mm-long and 16-mm-diameter uSEMS (Nagi stent; Taewoong Medical) was left in place to allow consolidation of the endoscopic fistula (► Fig. 2). After 3 days, an operative gastroscope (Pentax) was advanced through the stent to perform endoscopic retrograde cholangio-pancreatography (ERC) and remove the previous uSEMS (► Fig. 3). The patient was discharged after 2 days. No complications or procedure-related symptoms have been reported during 12 months of clinical follow-up.

EUS-guided duodenojejunal anastomosis is a feasible endoscopic approach in selected patients [3,4]. Expert and skilled endoscopists are needed to perform the described procedure successfully.

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**Competing interests:** None



**Fig. 3** Passage of the scope through the created anastomosis.

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