

ERCP in Roux-en-Y gastric bypass: creation of an antegrade gastrogastic conduit using a fully covered metal esophageal stent

Endoscopic retrograde cholangiopancreatography (ERCP) in patients with a Roux-en-Y gastric bypass remains very challenging. Placement of a large biliary stent is typically not feasible using single-balloon enteroscopy. We describe the use of a fully covered, metal esophageal stent to access the excluded stomach and perform ERCP.

A 49-year-old woman who had undergone Roux-en-Y gastric bypass surgery and cholecystectomy in 1999 was referred in July 2009 for evaluation of chronic pancreatitis associated with abdominal pain since 2007. Magnetic resonance cholangiopancreatography (MRCP) showed atrophic fibrotic change of the pancreas with irregularity of the pancreatic duct, biliary dilatation, and mild dehiscence of the staple line between the gastric remnant and the excluded stomach.

An initial endoscopy confirmed a defect in the staple line and using a Hydra wire (Boston Scientific, Natick, Massachusetts, USA), the tract was dilated using a balloon (CRE, Boston Scientific) up to 13.5 mm (● Fig. 1). After the patient had been informed with regard to the off-label use of the stent, a repeat procedure was carried out and a 23×105-mm esophageal covered self-expanding metal stent (CSEMS; WallFlex, Boston Scientific) was placed to bridge the gap between the gastric pouch and the excluded stomach (● Fig. 2). Subsequently, five ERCPs were performed through the in situ gastrogastic WallFlex-stent conduit for ongoing management of the patient's biliary and pancreatic stricture (● Fig. 3) until the strictures were resolved, when the esophageal stent was removed.

Deep enteroscopy, including single or double balloon-assisted ERCP, has drawbacks, which include the need for advanced training, an increased procedure length, the need for long accessories, and increased rates of pancreatitis [1]. Lack of a suitable window for gastrostomy and

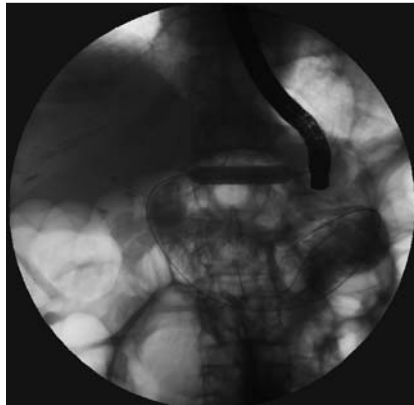


Fig. 1 Dilation of the dehiscence of the staple line between the gastric remnant and excluded stomach in a patient who had previously undergone Roux-en-Y gastric bypass.



Fig. 2 Deployment of the esophageal stent across the tract created between the remnant and excluded stomach.

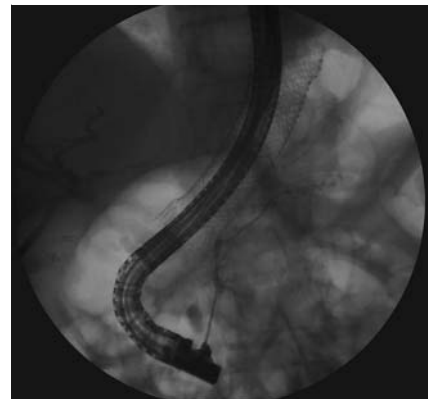


Fig. 3 Endoscopic retrograde cholangiopancreatography (ERCP) with biliary decompression and pancreatic injection after temporary stenting.

the morbidity and infectious risks posed by an open approach must be considered in surgery-based approaches [2, 3].

This report demonstrates that ERCP can be safely and effectively performed in patients with Roux-en-Y gastric bypass in a staged procedure using a CSEMS to create a conduit between the gastric remnant and the excluded stomach to facilitate biliary and pancreatic access. A recent report showed that ERCP can be performed via a gastrogastic communication [4]; while another team placed a fully covered, metal biliary stent to endoscopically reverse a gastric bypass [5].

In our patient, the need for repeat sessions required the placement of a long-standing conduit to allow for serial ERCPs. With the rising number of gastric bypasses being performed, it can be expected that novel procedures such as these will be widely replicated in order to offer advanced pancreaticobiliary interventions in this type of population.

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References

- 1 Wang AY, Sauer BG, Behm BW et al. Single-balloon enteroscopy effectively enables diagnostic and therapeutic retrograde cholangiography in patients with surgically altered anatomy. *Gastrointest Endosc* 2010; 71: 641–649
- 2 Baron TH, Vickers SM. Surgical gastrostomy placement as access for diagnostic and therapeutic ERCP. *Gastrointest Endosc* 1998; 48: 640–641
- 3 Baron TH, Chahal P, Ferreira LE. ERCP via mature feeding jejunostomy tube tract in a patient with Roux-en-Y anatomy (with video). *Gastrointest Endosc* 2008; 68: 189–191
- 4 Madan A, Urayama S. Successful ERCP in a Roux-en-Y gastric bypass patient, performed via a small remnant of gastrogastroic communication. *Endoscopy* 2011; 43 (Suppl 2): E73–E74
- 5 Wagh MS, Forsmark CE. Endoscopic creation of a gastrogastroic conduit for reversal of gastric bypass. *Gastrointest Endosc* 2011; 74: 932–933

Bibliography

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