

Another option for biliary access in post-bypass patient: intentional disruption of a gastric staple line

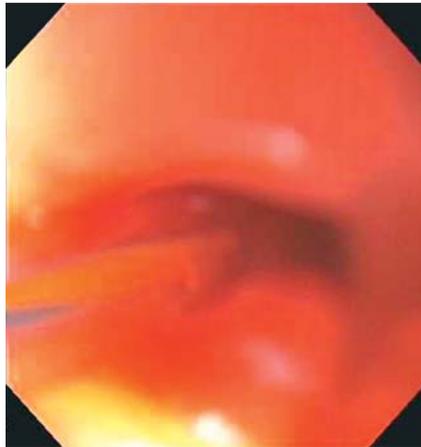


Fig. 1 Fistula tract with wire in a 72-year-old woman who had recently undergone four-vessel cardiac artery bypass, and also had oxygen-dependent chronic obstructive pulmonary disease, dialysis-dependent end-stage renal disease, and a Roux-en-Y gastric bypass (with cholecystectomy) 30 years ago.

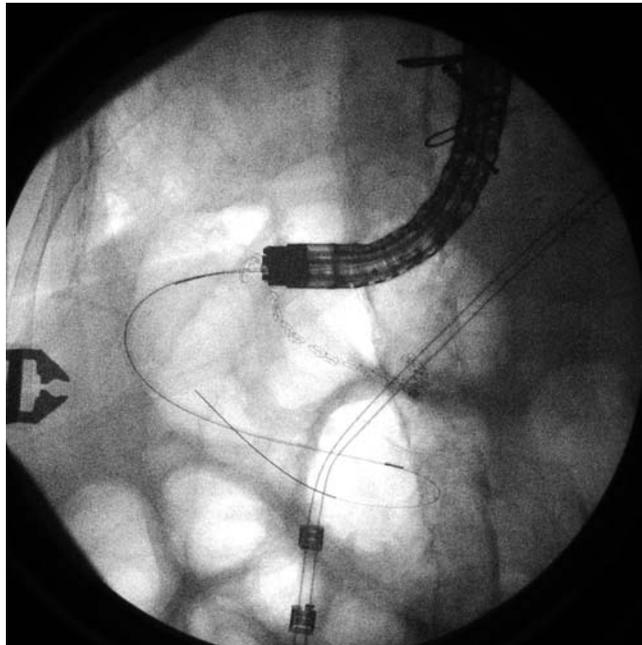


Fig. 2 Fluoroscopic image of cannulotome and wire through staple line fistula into excluded stomach.



Fig. 3 Dilated fistula tract.

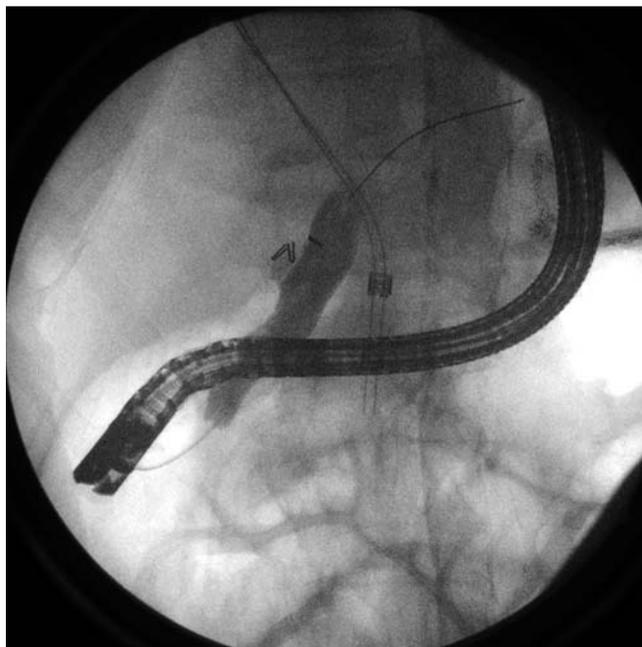


Fig. 4 Fluoroscopic image of duodenoscope traversing the disrupted staple line and cholangiogram showing choledocholithiasis.

Obese and post-Roux-en-Y gastric bypass (RYGB) patients are at increased risk of cholelithiasis and associated biliary disorders [1–3]. Because of the complicated postsurgical anatomy, endoscopic retrograde cholangiopancreatography (ERCP) may be more difficult, requiring deep enteroscopy or laparoscopic assistance. We report a case of intentional disruption of the gastric remnant-excluded stomach staple line to gain access to the duodenum for treatment of choledocholithiasis. A 72-year-old woman with past medical history of recent four-vessel cardiac artery

bypass, oxygen-dependent chronic obstructive pulmonary disease, dialysis-dependent end-stage renal disease, and RYGB with cholecystectomy 30 years ago was admitted at a local hospital with gallstone pancreatitis. She was treated with typical therapy and clinically improved, but on hospital day 3 she was noted to have a persistently elevated total bilirubin

of 2.7 mg/dL. Magnetic resonance pancreatography (MRCP) showed a dilated common bile duct (12 mm) with choledocholithiasis. ERCP was attempted at the local facility, but failed as the jejunojunctional anastomosis could not be reached, prompting transfer to our facility. On repeat ERCP, we accessed to the jejunojunctional anastomosis, which was deep-



Fig. 5 Stone extraction.

ly intubated to 60 cm, but could not be advanced to the level of the papilla. On removing the colonoscope, scant bile was noted in the gastric pouch. After probing with a sphincterotome, a small fistula tract was noted between the gastric pouch and the excluded stomach along the staple line (● Fig. 1), verified fluoroscopically by wire and contrast injection (● Fig. 2). The fistula was then sequentially dilated to 18 mm with CRE balloons (Boston Scientific, Cork, Ireland) (● Fig. 3). A duodenoscope was then advanced through the fistula tract and excluded stomach to a normal appearing ampulla. The duct was then deeply cannulated using a wire first

technique with subsequent contrast injection revealing a dilated common bile duct to 12 mm with choledocholithiasis (● Fig. 4). Following a 15-mm sphincterotomy, the duct was swept removing multiple brown pigmented stones (● Fig. 5). The fistula tract from the gastric pouch to the excluded stomach was not closed to allow repeat access if necessary. The patient did well and recovered from the episode.

Post-RYGB anatomy can make ERCP difficult, occasionally requiring deep-enteroscopy techniques or laparoscopic assistance to evaluate and treat biliary disorders. Here we have presented a case of intentionally disrupting the staple line excluding the bypassed stomach in a post-RYGB patient to facilitate therapeutic ERCP.

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Competing interests: None

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References

- 1 Shiffman ML, Sugerman HJ, Kellum JM et al. Gallstone formation after rapid weight loss: a prospective study in patients undergoing gastric bypass surgery for treatment of morbid obesity. *Am J Gastroenterol* 1991; 81: 1000–1005
- 2 Shiffman ML, Sugerman HJ, Kellum JM et al. Changes in gallbladder bile composition following gallstone formation and weight reduction. *Gastroenterology* 1992; 103: 214–221
- 3 Livingston EH. Procedure incidence and in-hospital complication rates of bariatric surgery in the United States. *Am J Surg* 2004; 188: 105–110

Bibliography

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