



Endoscopic Ultrasound-Directed Transgastric ERCP For Pancreatic Duct Stent Placement to Treat Pancreatic Ascites

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Introduction

- Endoscopic ultrasound (EUS)-Directed transGastric ERCP (EDGE) is an advanced procedure enabling pancreaticobiliary access in patients with Roux-en-Y gastric bypass (RYGB) anatomy.
- An anastomosis is created between the gastric pouch or jejunum and gastric remnant under EUS guidance to allow for subsequent ERCP.
- This relatively new technique has primarily been used for biliary therapy in RYGB patients. Its use for pancreatic endotherapy is less reported.
- We present a case of refractory pancreatic ascites from a persistent pancreatic duct (PD) leak successfully treated with EDGE and transpapillary PD stenting.

Case Description

- A 62-year-old white female with history of morbid obesity with Roux-en-Y gastric bypass and biliary pancreatitis with prior cholecystectomy was referred for refractory pancreatic ascites causing persistent abdominal pain, poor oral intake and weight loss necessitating total parenteral nutrition.
- Paracentesis revealed markedly elevated lipase consistent with pancreatic ascites and subsequent MRCP demonstrated a PD leak in the body of the pancreas as the cause of pancreatic ascites (Fig. 1).
- After multidisciplinary team discussion, a staged EDGE for transpapillary PD stenting was pursued.
- The gastric remnant was identified endosonographically through the jejunum, a jejunogastrostomy was created, and a 15 mm x 10 mm lumen apposing metal stent (LAMS) was deployed (Fig.2A).
- ERCP was pursued after 10 days during which a PD leak was re-confirmed at the body of the pancreas.
- A 5 Fr x 15 cm single pigtailed stent was deployed to bridge this leak (Fig.2B). A large biliary sphincterotomy was also performed.
- Follow up CT scan after one month showed resolution of pancreatic ascites and repeat ERCP confirmed resolution of the PD leak. The biliary and pancreatic stents were removed. The jejunogastrostomy stent was removed after three months.
- She remains asymptomatic and is now tolerating a regular diet.

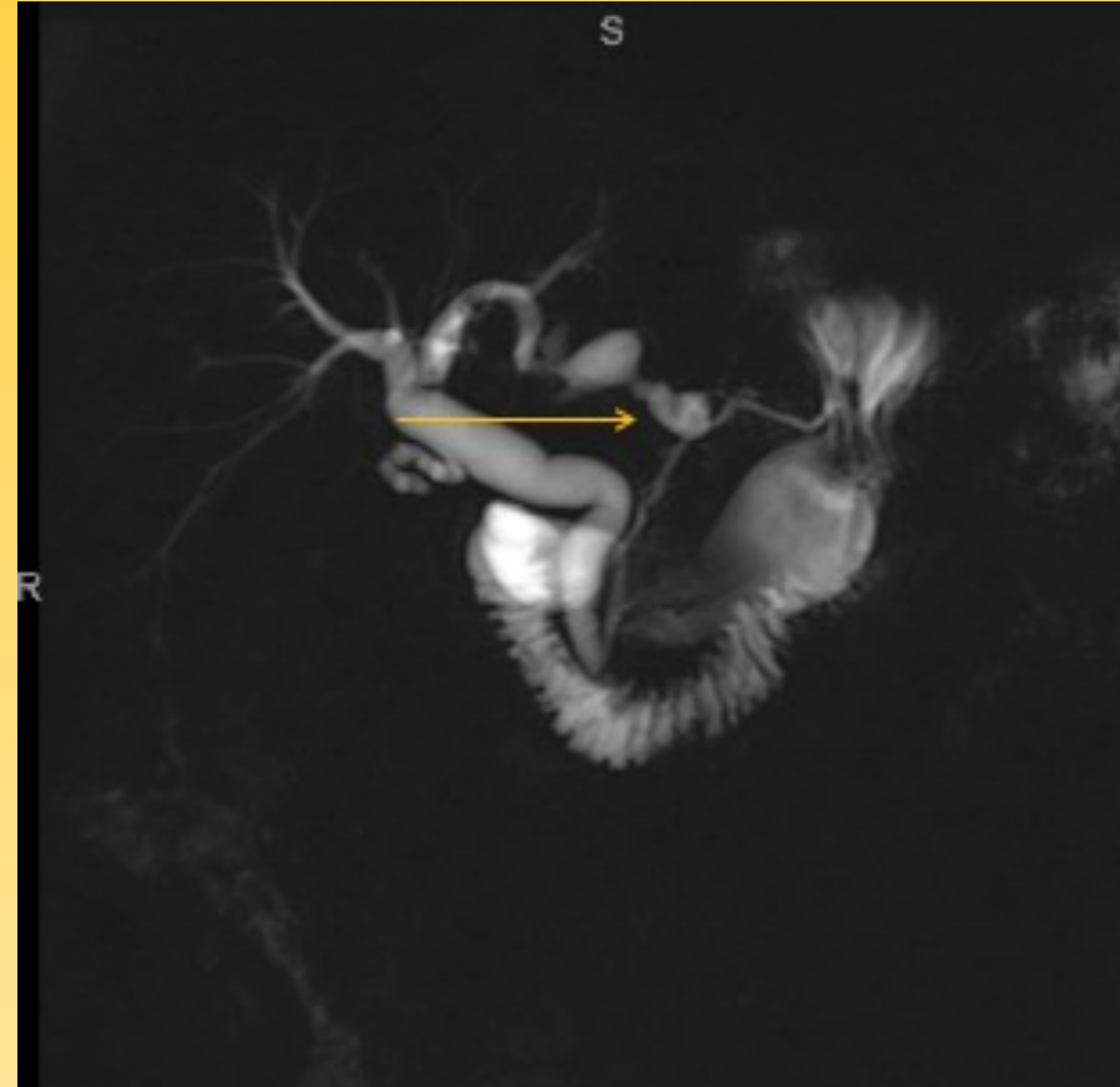


Figure 1. MRCP demonstrating a pancreatic duct leak (arrow).

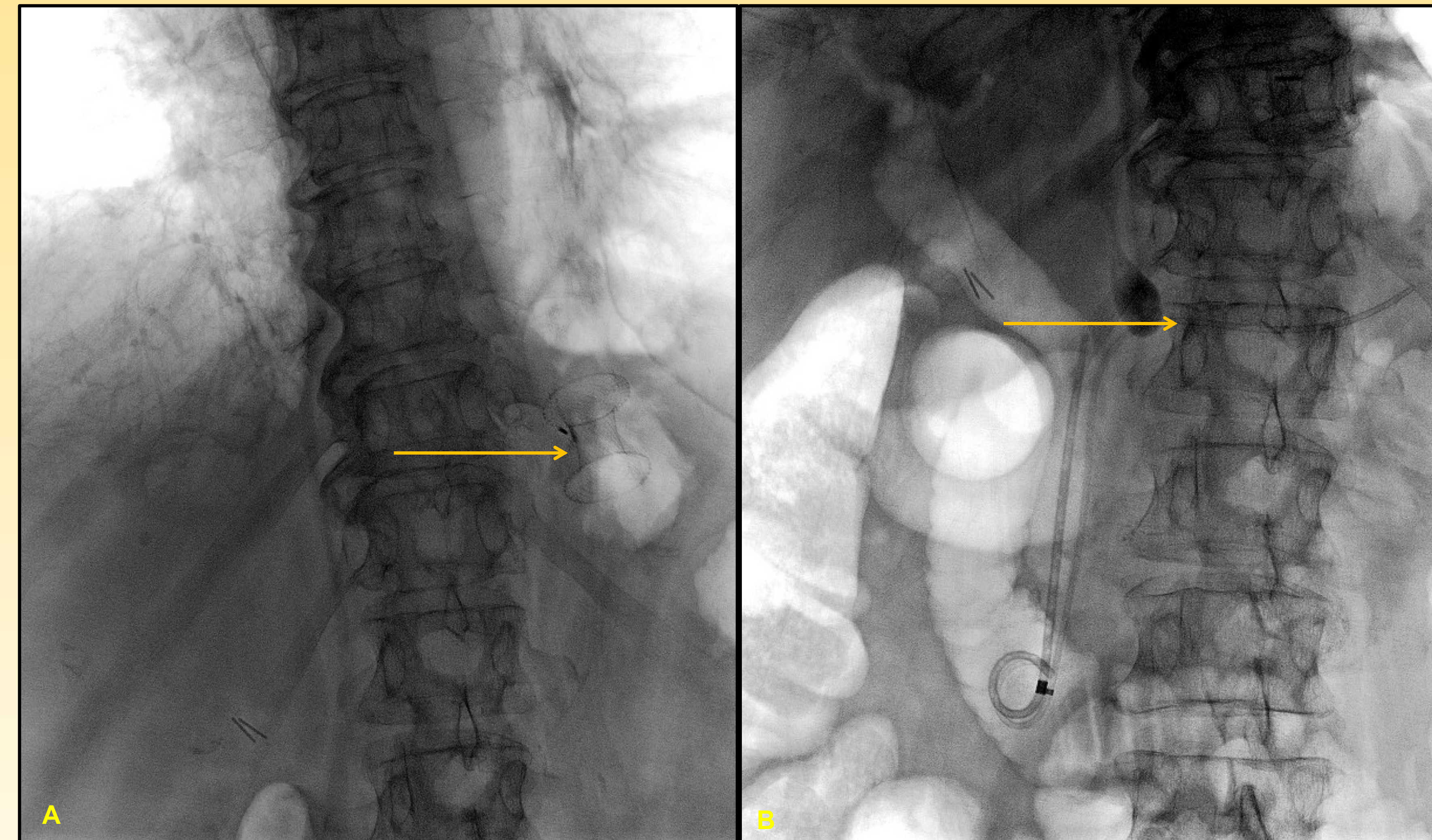


Figure 2. A) Fluoroscopic visualization of EUS-guided LAMS between jejunum and gastric remnant to create a jejunogastrostomy (arrow). B) Fluoroscopic visualization of stent across pancreatic duct with cessation of leak.

Discussion

- Compared to other techniques, EDGE is completely endoscopically guided, allows use of a standard duodenoscope for ERCP, and avoids morbidity associated with percutaneous interventions.
- EDGE-specific minor adverse events include intraprocedural stent malposition or migration during ERCP and post-procedural acid reflux. Moderate adverse events such as bleeding, perforation and persistent enteral fistulas are rare.
- Limited observational studies to date show a technical and clinical success rate of 96-100% for pancreaticobiliary therapy. Outcome data specific to pancreatic endotherapy is lacking.
- Herein, we show that EDGE for pancreatic endotherapy is a safe and effective alternative to more invasive laparoscopy or percutaneous gastrostomy access to the gastric remnant in RYGB anatomy and should be considered in cases with pancreatic ascites.

Conclusions

- **This case demonstrated successful EUS-Directed transGastric ERCP with pancreatic duct stenting for refractory ascites due to a persistent pancreatic duct leak in a patient with RYGB anatomy.**
- **Pancreatic endotherapy is feasible through EDGE and a safe alternative to percutaneous, laparoscopy or enteroscopy-assisted ERCP when performed by experts at tertiary referral centers.**
- **Additional long-term studies and comparative analyses are needed to help guide informed consent and multidisciplinary decision making for pancreaticobiliary therapy in RYGB patients.**



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