ERCP via Gastrostomy: A Work Around for Esophageal Stricture or Obstruction

Savan Kothadia, MD[1]; May Min, MD[1]; Fadlallah Habr, MD[1], Sarah Hyder, MD[1]
[1]Warren Alpert Medical School of Brown University

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Introduction

- In biliary obstruction, endoscopic retrograde cholangiopancreatography (ERCP) can be a life-saving intervention
- While the trans-oral approach is performed most often, there are indications of ERCP via gastrostomy (GERCP), largely in altered anatomy from Roux-en-Y gastric bypass
- Few reports exist regarding GERCP in the setting of esophageal obstruction or stricture
- We present a patient with complete esophageal obstruction requiring percutaneous gastrostomy (PEG) tube needing a GERCP with a pediatric duodenoscope for acute management of choledocholithiasis

Case Description

- 84-year-old female with history of a severe benign esophageal stricture refractory to serial dilations, esophageal stenting, and ultimately requiring 20 Fr PEG placement presented with back pain
- Computed-tomography abdomen/pelvis: intra- and extra- hepatic biliary ductal dilatation with an 8 mm density in the distal common bile duct and a distended gallbladder
- Labs: AST/ALT 68/89 IU/L, alkaline phosphatase 610 IU/L, and total bilirubin 2.7 mg
- Magnetic resonance cholangiopancreatography confirmed choledocholithiasis
- Endoscopic management was the only viable option due to poor surgical candidacy

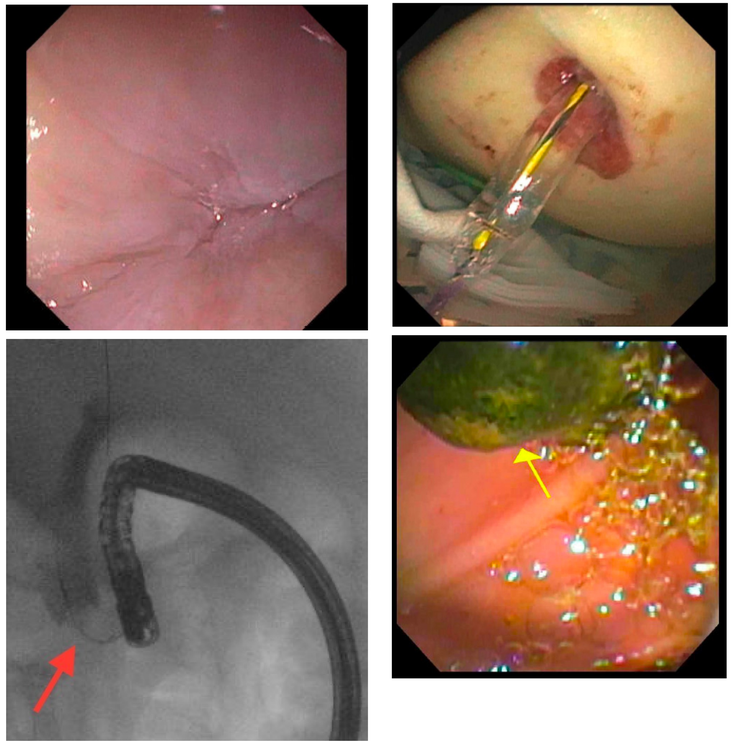

Figure 1 (top left): EGD showing complete esophageal stenosis; Figure 2 (top right): Dilation of the gastrostomy stoma with 12mm biliary balloon dilator; Figure 3 (bottom left): Cholangiogram showing 12mm balloon dilator in common bile duct with billing defect consistent with stone; Figure 4 (bottom right): Extracted stone

Case Description (cont.)

- ERCP via a trans-oral approach was attempted, but the esophageal stricture was completely stenosed, precluding passage of a 0.035 inch guidewire (Figure 1)
- External PEG tube was removed and the gastrostomy stoma was dilated using a 12mm biliary balloon dilator under fluoroscopic guidance (Figure 2)
- An Olympus PJF-160 7.5mm diameter duodenoscope was passed through the stoma into the duodenum and the bile duct was cannulated
- Fluoroscopy revealed 15mm duct dilation with a 10mm distal filling defect (Figure 3)
- Stone removal was accomplished via sphincterotomy and balloon, dilation-assisted-stone extraction (Figure 4)
- A 20 Fr externally replaceable PEG tube was placed at the stoma site at the end of the procedure

Conclusions

- This case demonstrates an alternative approach to an arduous ERCP in a patient with a severe esophageal stricture which was not amenable to dilation or esophageal stenting
- GERCP requires extra vigilance due to technical challenges related to positioning and thermal injury risk with a small caliber scope tip but can serve as another option for managing biliary disease in patients with esophageal strictures

Contact
Savan Kothadia
Warren Alpert Medical School at Brown University
Email: Savan_Kothadia@brown.edu