A Case Report of Post-gastric Bypass Robotic-assisted Laparoscopic Trans-gastric ERCP in the Setting of Gallbladder Agenesis.

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Introduction

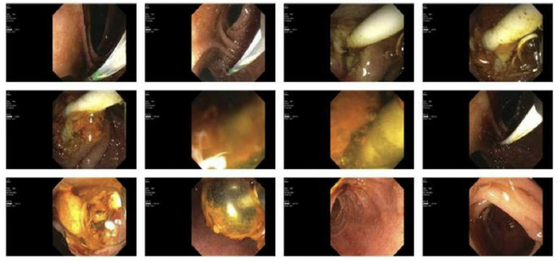
- With an incidence of 0.04 - 0.1%, gallbladder atresia is a rare phenomenon.
- The trans-gastric approach to management of common bile duct (CBD) stones is well-documented amongst post-gastric bypass patients.
- There is no previously reported case of gallbladder agenesis in post-gastric bypass patients undergoing trans-gastric endoscopic retrograde cholangiopancreatography (ERCP).

Case Presentation

- 34-year-old female presented to the ED with one week of chest pain, fever, leukocytosis, and transaminitis.
- Ultrasound showed intrahepatic biliary ductal dilatation and dilation of the CBD to 12 mm.
- An ERCP was aborted by gastroenterology due to inability to sufficiently dilate the lumen of the excluded stomach.
- PMHx: solitary kidney, gallbladder agenesis, lumbar radiculopathy, prior choledocholithiasis (pre-bypass ERCP)
- PSHx: Lumbar spinal cord stimulator placement, gastric bypass surgery (6 years prior to presentation)

Surgical & Procedural Overview

- Robotic-assisted laparoscopic gastrotomy creation
- ERCP performed by advanced gastroenterology: CBD filling defect on cholangiography, sphincterotomy extension with multiple stones extracted
- Post-ERCP: Gastrotomy closure via partial lateral wedge resection



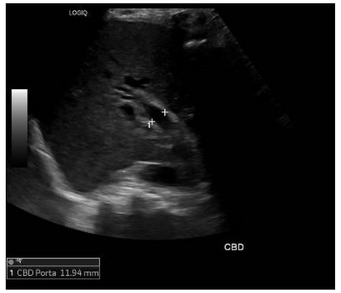


Figure 1 (left): Sphincterotomy extension, CBD stone extraction.
Figure 2 (right): US with CBD of 11.94mm.

Discussion

- Patients with gallbladder agenesis present with upper abdominal symptoms (biliary colic, nausea, emesis, dyspepsia); an intestinal segment (frequently duodenum) may occupy the gallbladder site, mimicking gallstones and possibly prompting an erroneous read of cholelithiasis, cholecystitis, or a shrunken gallbladder.
- Accessing the remnant stomach for ERCP in post-gastric bypass patients necessitates an alternative approach, such as deployment of a lumen-apposing metal stent (LAMS) between the gastric pouch and gastric remnant and a trans-gastric approach for bile duct cannulation.
- Overall, trans-gastric ERCP has been shown to have low rates of complications and high rates of improvement in symptoms.

Sources

- Al-Khazraji, A. et al. A Case of Gallbladder (GB) Agenesis Presenting with Ascending Cholangitis: 249. American Journal of Gastroenterology 109():p S77, October 2014.
- Clapp, B., et al. Long Term Outcomes after Laparoscopic Assisted Trans-Gastric Endoscopic Retrograde Cholangiopancreatography. JSLS
- . 2021 Jul-Sep;25(3):e2021.00048. doi: 10.4293/JSLS.2021.00048
- Hossain, I., et al. Laparoscopic-assisted transgastric endoscopic retrograde cholangiopancreatography after Roux-en-Y gastric bypass: technical details
- J Gastrointest Surg 2024 Dec 28;12 doi: 10.1016/j.gassur.2024.09.024
- Piltcher-da-Silva, R., et al. Gallbladder agenesis a rare and underdiagnosed congenital anomaly: a case report and literature review. J Surg Case Rep
- . 2022 Nov 10;2022(11):rjac505. doi: 10.1093/jscr/rjac505