

Cholangitis Caused by a Migrated Pancreatic Duct Stent Into the Bile Duct After Pancreaticoduodenectomy

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CASE REPORT

Pancreaticoduodenectomy is an extensive surgical resection with malignant and nonmalignant indications. Although advances in surgical techniques have improved mortality rates, postoperative morbidity remains high, with pancreatic leaks and fistulas among the most serious complication.¹ Pancreaticoenteric anastomosis stents may reduce the rates of these complications, and internal and external stents are believed to be equally effective.² Factors influencing the decision to place a stent are pancreatic texture and ductal diameter, and internal stents are sometimes preferred because they can facilitate postoperative recovery.³ We report a case of cholangitis caused by a migrated pancreatic stent after pancreaticoduodenectomy.

A 63-year-old man with gastric adenocarcinoma with pancreatic head invasion underwent pancreaticoduodenectomy 2 years earlier with distal gastrectomy, cholecystectomy, and end-to-side choledochojejunostomy. He presented with rigors, abdominal pain, and fevers to 104°F. His laboratory tests were suggestive of cholangitis with leukocytosis, liver test abnormalities, and *Escherichia coli* bacteremia. Computed tomography imaging revealed intrahepatic biliary dilation without pneumobilia, acute portal vein thrombus, and a biliary stent that was not present on surveillance imaging 2 months before (Figure 1). The patient denied any interval endoscopic procedures. On further review, the previously seen pancreatic stent placed during pancreaticoduodenectomy was no longer present,

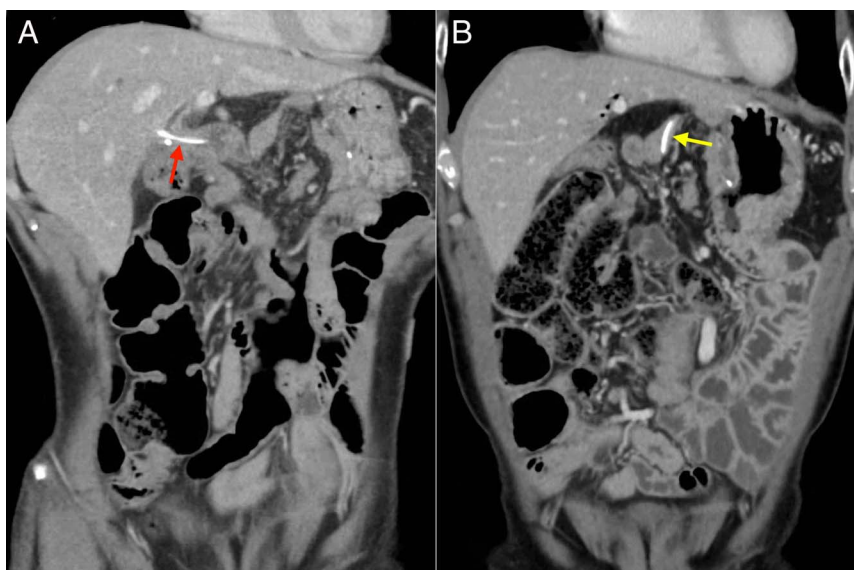


Figure 1. Contrast-enhanced computed tomography imaging reveals (A) a new biliary stent (red arrow) and (B) the pancreatic stent (yellow arrow) 2 months before is no longer present, which suggests migration into the choledochojejunostomy.

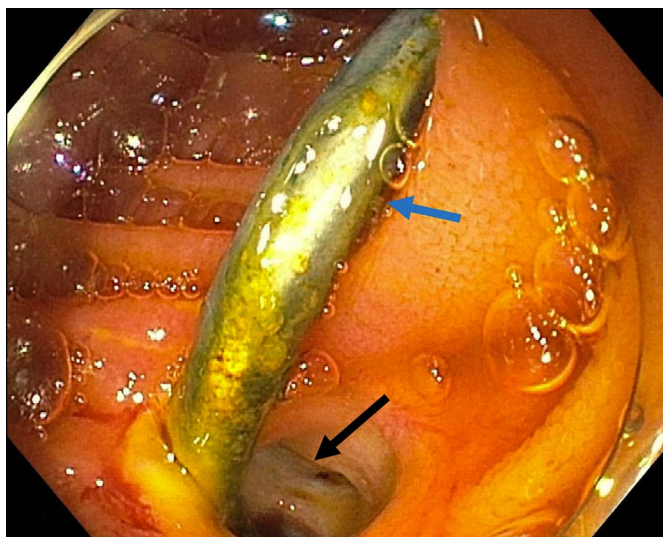


Figure 2. Endoscopic retrograde cholangiopancreatography showing migrated pancreatic stent (blue arrow) within the choledochojejunostomy (black arrow), which was removed and revealed a 10-mm stone.

which implied migration into the choledochojejunostomy. Endoscopic retrograde cholangiopancreatography using a pediatric colonoscopy confirmed a plastic stent within the bile duct and a pancreaticojejunostomy without a visualized stent (Figure 2). Removal of the stent revealed a 10-mm stone that was partially adhered to the stent, which was presumed to be the cause of cholangitis (Figure 3). After balloon sweeps, the occlusion cholangiogram showed no stricture or remaining stones. His cholangitis resolved, and he was discharged home the following day.

Internal pancreaticoenteric stents placed at the time of surgery are generally presumed to pass spontaneously through the rectum without clinical consequence. Stent migration is a rare complication documented in case series and can result in biliary colic, cholangitis, hepatic abscesses, and even osteomyelitis.⁴⁻⁷ In this patient, the migrated pancreatic stent lodged within the choledochojejunostomy and served as a nidus for stone formation, causing cholangitis. Performing an endoscopic retrograde cholangiopancreatography in patients with pancreaticoduodenectomy anatomy can be challenging but is usually successful with a pediatric colonoscope, as in our patient, or balloon-assisted enteroscopy.⁵ Although uncommon, gastroenterologists should consider pancreatic stent migration in the differential diagnosis for cholangitis and biliary colic in patients with pancreaticoduodenectomy anatomy, which can occur several years later.

DISCLOSURE

Author contributions: All authors contributed equally to this manuscript. TJ Savides is the article guarantor.

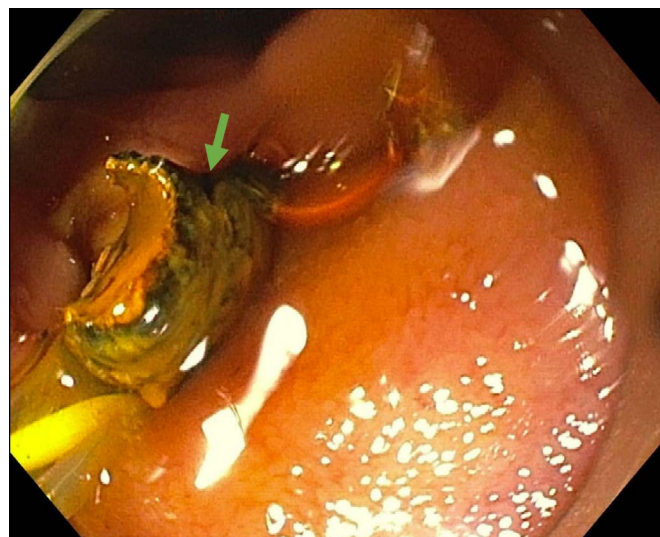


Figure 3. Endoscopic retrograde cholangiopancreatography showing a 10-mm stone that was partially adhered to the stent that was presumed to be the cause of cholangitis.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received April 20, 2020; Accepted July 17, 2020

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