

Endoscopic Management of Migrated Pancreatic Stent into Hepaticojejunostomy Causing Acute Pancreatitis

Samiksha Pandey, MBBS, MS¹; Andrew Aneese, MD²; Shailesh Niroula, MBBS¹; Laith H Jamil, MD, FACP²;

¹Department of Internal Medicine, ²Department of Gastroenterology and Hepatology ▪ Oakland University William Beaumont School of Medicine, Beaumont Hospital, Royal Oak, MI

Introduction

- Trans-anastomotic pancreatic stents after the pancreaticoduodenectomy are placed to decrease the complications, maintain ductal patency and support healing of the anastomosis.
- Complications of migration of trans-anastomotic stent from the pancreatojejunostomy (PJ) through the hepaticojejunostomy (HJ) is rare. (1-3)
- We present a case of acute pancreatitis in the setting of pancreatic duct (PD) stent migration into the biliary tree in a patient who had previously undergone pancreaticoduodenectomy.

Case Description

A 65-year-old female with a past medical history of duodenal adenocarcinoma status post pancreaticoduodenectomy with cholecystectomy and partial antrectomy with placement of a 5-French (Fr) PD stent across the PJ presented with acute abdominal pain, nausea, and vomiting.

Significant labs showed lipase > 1200 and normal liver function tests. Computer tomography (CT) demonstrated a dilated PD up to 6 mm with no PD stent, and interval placement of a biliary stent terminating in the left intrahepatic duct (Figure 1A, B). The patient denied an interval endoscopic intervention since her pancreaticoduodenectomy. It was determined that the current biliary stent was likely the migrated PD stent.

Endoscopic Retrograde Cholangiopancreatography (ERCP) demonstrated one plastic stent into the biliary tree emerging from the widely patent HJ which was removed endoscopically (Figure 2A).

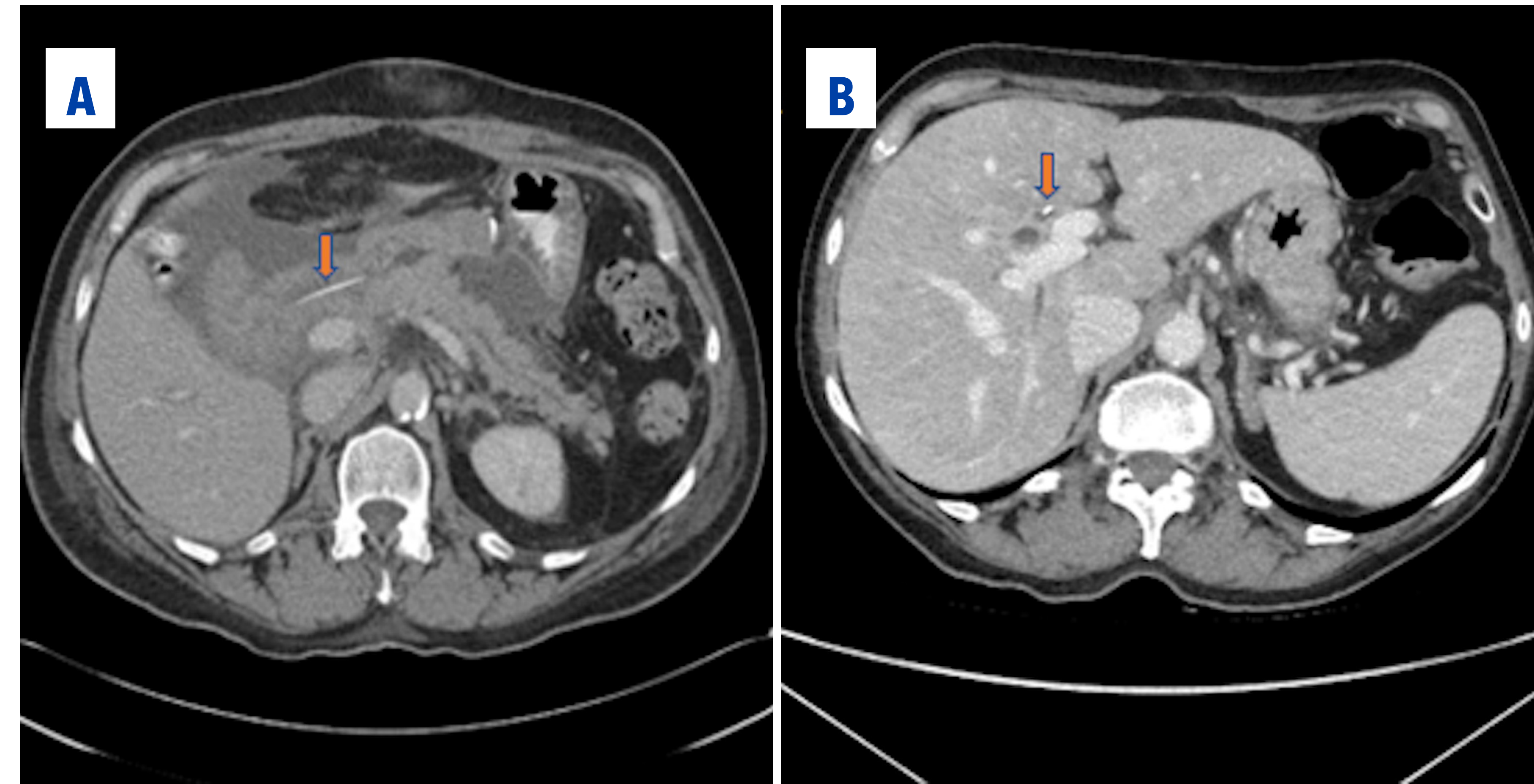


Figure 1. Computed Tomography scan of the abdomen showing A) stent in the pancreatic duct. B) After 4 months, migrated stent in common bile duct with no stents in pancreatic duct. Orange arrows showing the stent.

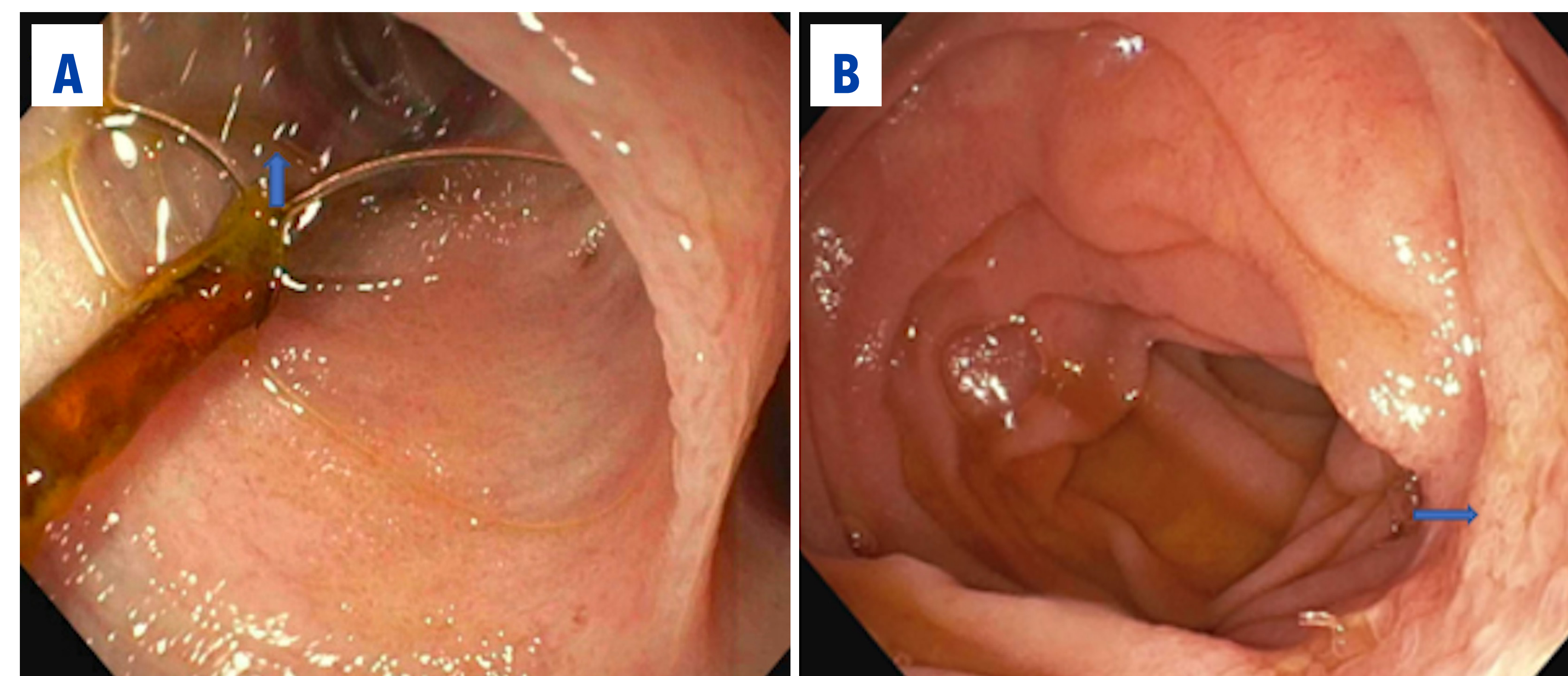


Figure 2. Endoscopic images showing A) choledocojejunostomy anastomosis with plastic stent, B) stenosed pancreatojejunostomy anastomosis.

Case Description (cont.)

The PJ was severely scarred with a pinpoint opening (Figure 2B) and moderate diffuse dilation of the PD in the body and tail of the pancreas.

A 2 mm ventral pancreatic sphincterotomy and dilation of the PD orifice with a 4 mm balloon dilator was performed. A 7 Fr by 5 cm plastic PD stent with a full external pigtail and a single internal flap was placed 5 cm into the dorsal PD. The patient improved clinically with rapid resolution of pain on the first post-procedure day.

Conclusions

- PD stent migration into the biliary tree is a rare complication. It is postulated to be related to the proximity and angulation of the PJ and HJ.
- Complications of stent migration into the biliary tree include both pancreatic, as reported in this case and biliary complication. Retrieval of migrated stent in biliary system is challenging due to altered anatomy after pancreaticoduodenectomy, yet is a standard procedure.
- The current case demonstrates the importance of consideration of PD stent migration as a cause of pancreatitis albeit uncommon.

References

1. Goh S, Kok H, Houli N. Intrahepatic migration of pancreatic stent after pancreaticoduodenectomy: percutaneous cholangioscopic retrieval is feasible. *BMJ Case Rep.* 2021;14(9):e244380. doi:10.1136/bcr-2021-244380
2. Hirono, S., Kawai, M., Yamashita, Y., Okada, K., Miyazawa, M., Ueno, M., Maeda, Y., Itonaga, M., Kitano, M. and Yamaue, H., 2017. Successful removal of an internal pancreatic stent that migrated into the bile duct using double-balloon enteroscopy after pancreaticoduodenectomy. *Surgery Today*, 48(2), pp.167-174.
3. Yang E, Eskandari A, Chang M, White R, Savides T. Cholangitis Caused by a Migrated Pancreatic Duct Stent Into the Bile Duct After Pancreaticoduodenectomy. *ACG Case Rep J.* 2020;7(11):e00477. doi:10.14309/crj.0000000000000477