

## Clinical Image

# Bridging Pancreatic Duct Stent - A Rare Adverse Event

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Received: January 29, 2015; Accepted: February 03, 2015; Published: February 05, 2015

## Keywords

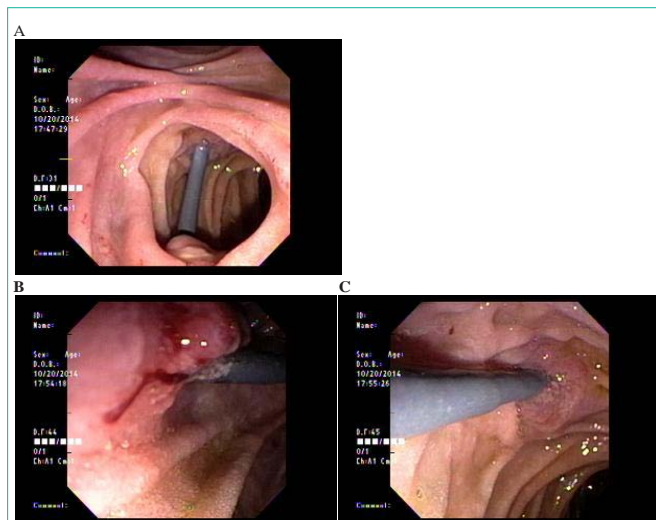
Pancreatic duct stent; Duodenal perforation

A 42-year-old female with history of chronic pancreatitis, status post pancreatic duct (PD) stent placed at another institution presented to the Emergency Department with acute-onset epigastric pain associated with nausea and vomiting. The quality and severity of pain was not different than usual chronic pancreatitis pain. The physical exam was significant for epigastric tenderness. A CT scan (Figure 1) of the abdomen was reported as PD stent eroding the duodenal wall up to the fat planes but no sign of perforation. An EGD (GIF H180, Olympus) revealed the PD stent –bridging the ampulla with the opposite duodenal wall forming a mound of inflammatory tissue (Figure 2). For a novice, both sides look alike although it is well known that ampulla is on medial side. The stent was grabbed near the ampulla with a rat-tooth foreign body removal forceps and with a gentle tug it was dis-impacted and subsequently pulled out. Grabbing the stent near perforated site would not form a fulcrum and could be more traumatic leading to perforation. There is no best technique reported in literature regarding removal of perforated stents. After stent (7 Fr 10 cm straight) removal, pain started getting better and she became asymptomatic in 24 hrs.

Adverse events of PD stent placement include pancreatic parenchymal changes, proximal and distal stent migration with bowel



**Figure 1:** CT Abdomen Coronal view showing pancreatic duct stent eroding the duodenal wall up to the fat planes (red arrow).



**Figure 2:** (A) Endoscopic view of duodenum showing pancreatic duct stent bridging the ampulla and opposite duodenal wall. (B) Stent eroding duodenal wall (C) Ampullary side.

perforation. Incidence of stent migration is 7.5% distally and 5.2% proximally [1]. Given that the majority of complications associated with stent migration and perforation are seen with straight stents [2-10], we suggest that longer and larger diameter PD stents should be avoided. The straight stent would not perforate if the distal end is aligned parallel to the duodenal lumen. A > 3-5 cm long PD stent with distal end aligned perpendicular to lumen would have higher probability of duodenal perforation.

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