Pancreaticobiliary Limb Stenosis in Billroth II Reconstruction as a Cause for Recurrent Acute Pancreatitis

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Introduction

- Afferent loop syndrome (ALS) has been described in patients with altered gastric anatomy, especially after gastrojejunostomy with Billroth II or Roux-en-Y reconstruction.
- It has been suggested that a distal obstruction causes increased intraluminal pressure within the afferent small bowel limb leading to accumulation of bile, pancreatic fluids, and small intestinal secretions.
- We present a case of afferent loop syndrome presenting as acute pancreatitis.

Case Presentation

- A 38-year-old male with a history of pre and post pyloric strictures status post Billroth II reconstruction who was admitted to our hospital with abdominal pain, nausea and vomiting for two days.
- He was found to have a lipase of 2660 U/l. CT scan of the abdomen showed a dilated duodenal C-loop and changes consistent with acute pancreatitis.
- He initially underwent an esophagogastroduodenoscopy (EGD) which revealed Billroth II anatomy with surgical staples at the anastomosis, surrounding ulceration and friable mucosa. The entrance to the afferent small bowl limb was severely stenosed and could not be traversed with the ultrathin gastroscope.
- The patient's clinical status improved with supportive management and he left against medical advice the following day.

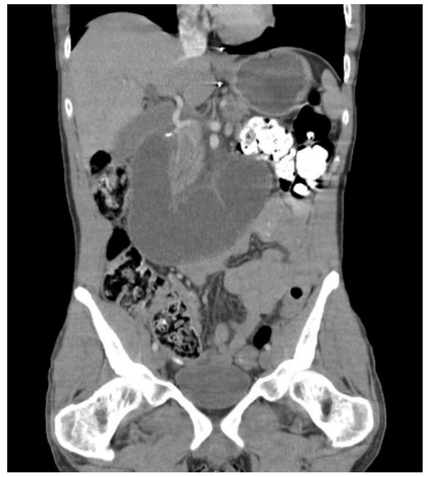

Figure 1: Dilated duodenal C- loop

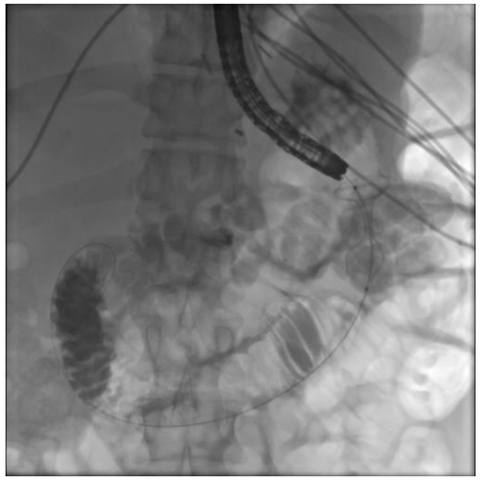

Fig 2: Fluoroscopy image showing the guidewire, small bowel loops with contrast, deployed AXIOS stent in the jejunal limb

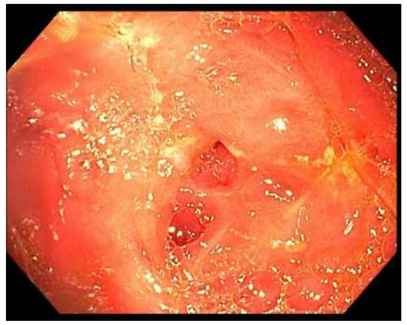

Fig 3a: Severe stenosis at the afferent jejunal limb orifice

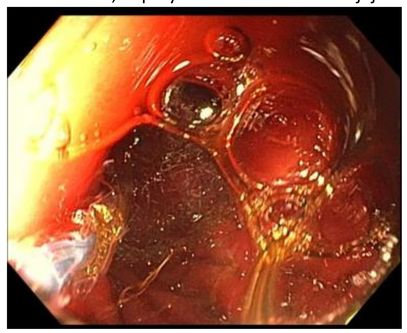

Fig 3b: The stent was dilated using a CRE balloon 10-12 mm up to 10 mm

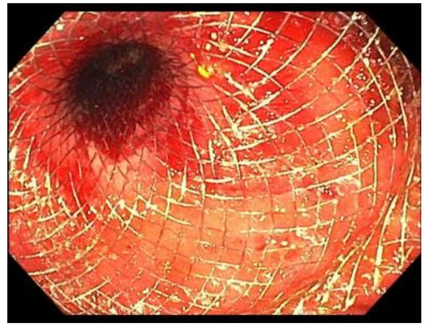

Fig 3c: Lumen Apposing Metal Stent (AXIOS) placed in the afferent jejunal limb

Case Presentation

- He again presented nine days later with epigastric pain radiating to the back, a lipase of 1927 U/l and CT imaging again showing acute pancreatitis and a dilated duodenal C- loop up to 6.5 cm (Figure 1).
- He underwent EGD with fluoroscopy; severe stenosis was again found at the afferent jejunal limb orifice. A wire was passed through the stenosed limb, and a Lumen Apposing Metal Stent (LAMS) was deployed through a therapeutic gastroscope. The stenosis was then dilated up to 10 mm through the stent.
- The patient's symptoms improved and he was discharged with plans for repeat endoscopy in 6-8 weeks.

Discussion

- Pancreaticobiliary limb stenosis at the anastomosis site should be considered as one of the rare causes of recurrent acute pancreatitis, especially in patients with previous gastrectomy Billroth II reconstruction.
- Prompt identification and treatment of any possible stenosis is essential.
- The use of LAMS may have the potential advantage of reduced stent migration risk and improved likelihood of stenosis resolution.