

Clinical Image

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Duodeno-duodenal intussusception in a patient with chronic pancreatitis**Srikanth Kothalkar; Akash Mathur; Piyush Mishra; Ankur Yadav; Anshuman Elhence; Uday C Ghoshal***

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Keywords: Chronic pancreatitis; Frey's procedure; Intussusception; Vomiting.**Acronyms:** LPJ: Lateral pancreaticojejunostomy; CBD: Common bile duct; EGD: Esophagogastroduodenoscopy; CT: Computerised tomography; NJ: Naso-jejunal tube.**Description**

A 53-y old lady with chronic pancreatitis underwent a Frey's procedure and Lateral Pancreaticojejunostomy (LPJ) in 2016. However, four years after the surgery, she developed a lower Common Bile Duct (CBD) stricture and was on endotherapy for the same, with currently four plastic stents in situ. On presentation, she had recurrent post-meal bilious vomiting, approximately 15 bouts a day, loss of appetite, retrosternal burning sensation and a localised abdomen swelling. On examination, she had epigastric fullness with a BMI of 14.7 Kg/m². On Esophagogastroduodenoscopy (EGD), mucosal invagination was seen in the first part of the duodenum, suggestive of duodeno-duodenal intussusception, and the scope was negotiated across with difficulty into the second part of the duodenum (Figure 1A, B and C). A triphasic Computerised Tomography (CT) scan showed CBD stents in situ, atrophic pancreas and an ill-defined

soft tissue in the region of the pancreatic head; also, the duodenum was thickened with duodeno-duodenal intussusception with upstream dilated stomach (Figure 1D). Tumor marker CA 19-9 was >1200 U/ml (Normal 0-37 U/ml). For gastric outlet obstruction due to duodenal intussusception, a Nasojejunal tube (NJ) was placed to maintain nutrition. Given the high suspicion of pancreatic malignancy and duodeno-duodenal intussusception, she was planned for definitive surgical management.

Duodeno-duodenal intussusception is characterised by the distal invagination of a segment of the duodenum into the duodenum itself [1]. This condition is rare because of the retroperitoneal fixation of the duodenum [2]. Only a few cases have been described previously in the literature. One patient developed duodeno-duodenal intussusception three months after Frey's procedure and was managed by re-exploration [3]. A series of three cases from India describes gastric outlet ob-

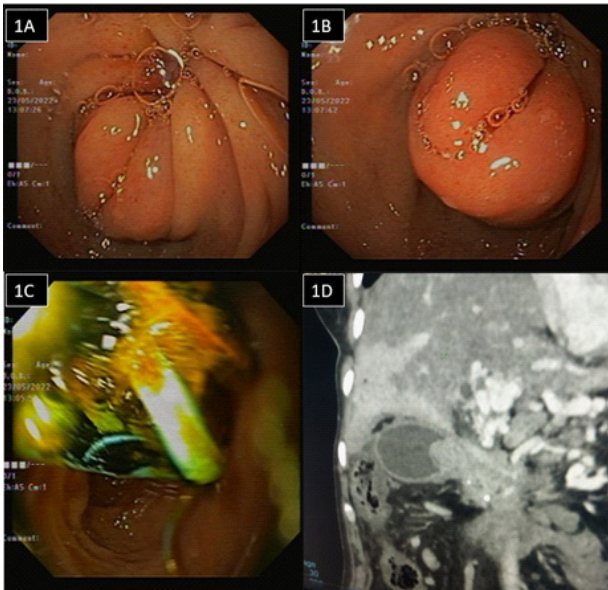


Figure 1: (A,B) Esophagogastroduodenoscopy (EGD) images showing mucosal invagination in the first part of the duodenum, suggestive of duodeno-duodenal intussusception; (C) Esophagogastroduodenoscopy (EGD) image showing four biliary stents in situ; (D) A triphasic Computerised Tomography (CT) scan image showing thickened duodenum with duodeno-duodenal intussusception

struction with moderate to severe abdominal pain as the presentation in all these cases; our patient, however, only had mild pain abdomen [4]. The exact mechanism of duodeno-duodenal intussusception is unknown; it has been postulated that any lesion in the duodenal wall or irritant within the lumen that may alter normal peristaltic activity can initiate an invagination of the proximal bowel into the distal bowel. The lead point for this condition could be a polyp, malignant growth or an inflammatory mass.

To diagnose this condition, initial investigations include an abdomen ultrasound which may show a distended stomach and the lead point. Contrast-enhanced CT is the investigation of choice to establish the diagnosis and cause of the intussusception. In our case, due to the patient's presentation, we also did an EGD which showed mucosal telescoping, and simultaneously it also helped in the placement of a nasojejunal tube to optimise the nutrition of our frail patient before surgery.

This case highlights that duodeno-duodenal intussusception, although rare because of the retroperitoneal fixation of the duodenum, should always be thought of as a cause of gastric outlet obstruction, especially in a patient with post-surgical status and typical endoscopic findings.

Declarations

Conflict of interest: None of the other authors has any conflict of interest to declare concerning this paper.

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