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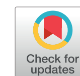
Images in Surgery

Symptoms of bowel obstruction following remote total pancreatectomy with auto-islet cell transplantation



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CASE PRESENTATION

A 41-year-old man with a remote history of total pancreatectomy with islet cell autotransplantation (TPIAT) for chronic calcific pancreatitis presented to the emergency department with 2 days of left-sided abdominal pain, nausea, and multiple episodes of emesis. The patient's last bowel movement was 3 days prior to presentation. Physical examination revealed a soft abdomen with left upper/lower quadrant tenderness to palpation without signs of peritonitis. Laboratory workup was remarkable for leukocytosis, anion gap metabolic acidosis, and hyperglycemia. Vital signs were within normal limits. Initial management included placement of a nasogastric tube which returned bilious fluid and correction of metabolic disturbances with intravenous insulin infusion and fluid resuscitation.

Given these findings, which diagnosis is most likely?

A. Internal hernia

B. Adhesive small bowel obstruction (SBO)

C. Jejunogastric intussusception via previous surgical gastrojejunostomy

D. Malignant small bowel obstruction

Computed tomography (CT) scan of the abdomen and pelvis was obtained and confirmed jejunogastric intussusception (Fig 1).

After a period of nasogastric decompression, worsening of abdominal pain, and diagnostic imaging findings, the decision was made to proceed with operative exploration. During dissection and lysis of adhesions, the intussusception was reduced. All bowel appeared viable, and resection was not required. Bowel function returned on postoperative day 6, and the patient was discharged to home on postoperative day 9.

DISCUSSION

Adhesive disease and ventral abdominal wall hernia are the commonest causes of bowel obstruction in all postsurgical patients. However, several etiologies of bowel obstruction unique to patients with altered foregut anatomy warrant awareness. In the setting of gastroenteric or bilioenteric anastomoses, potential causes of bowel obstruction include internal hernia or afferent/efferent limb compression secondary to inflammatory changes [1]. Reported here is a rare cause of bowel obstruction secondary to jejunogastric intussusception.

Management of bowel obstruction depends on multiple factors including patient hemodynamic status, the presence of intestinal perforation or ischemia, and the etiology of the obstruction. Nonoperative management of bowel obstruction with nasogastric decompression and serial abdominal radiographs following oral administration of water-soluble contrast has been used to predict resolution of obstruction; however, these studies are specific to patients with adhesive SBO [2]. In this case, CT imaging was pivotal in elucidating the etiology of bowel obstruction and prompting early surgical intervention by identifying jejunogastric intussusception.

Jejunogastric intussusception in patients with prior gastrojejunostomy remains an exceedingly rare phenomenon with only scattered case reports available to help guide management [3]. In this case, cross-sectional imaging was essential in diagnosing this rare entity. This case report highlights the importance of clinician awareness of jejunogastric intussusception after foregut surgery as prompt surgical intervention is warranted to prevent intestinal ischemia and necrosis.

Disclosures

Author Contribution

SPM contributed to project conceptualization, data curation, formal analysis, methodology, and drafted and revised the manuscript. MPA contributed to project conceptualization, methodology, and revision of the manuscript. TKM contributed to project conceptualization, formal analysis and revision of the manuscript AMG and CMS contributed to project conceptualization and revision of the manuscript. AMS contributed to project conceptualization, methodology, supervision of the project, and revised the manuscript.

Conflict of Interest

The authors have no conflicts of interest to disclose.

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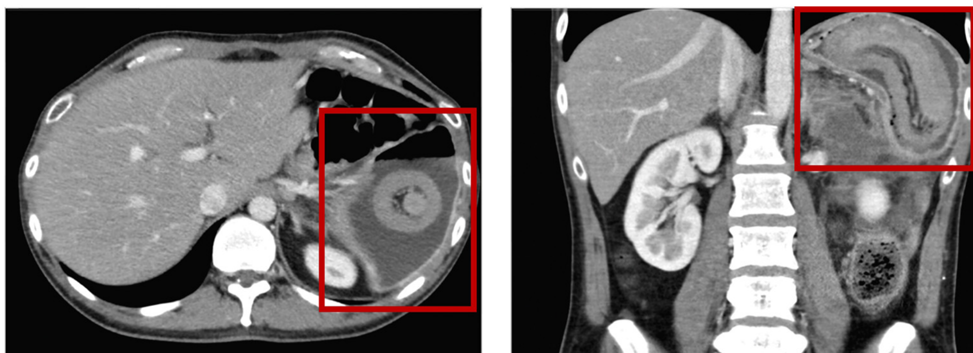

Fig 1. CT imaging demonstrating jejunogastric intussusception.

Funding Source

None.

Ethics Approval

This study was considered exempt by the Indiana University Institutional Review Board.

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