Adult midgut volvulus due to Crohn's stricture and megacolon with occult congenital malrotation of the gut

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Introduction

Midgut volvulus due to congenital intestinal malrotation classically presents in the neonatal period. Presentation in adulthood but has been reported, but is rare. We present a case of acute midgut volvulus prompted by torsion of a massively distended colon from Crohn's stricture in a patient with occult congenital malrotation.

Case

A 47-year-old woman suffering from Crohn's colitis with a sigmoid stricture and progressive dilatation of her proximal colon presented to an outside hospital with retching, epigastric abdominal pain, and intolerance of oral intake. Computed tomography (CT) scan demonstrated massive gastric and duodenal dilation, with reversal of the normal relationship of the greater and lesser curvatures suggestive of organoaxial volvulus. There was one transition point in the distal duodenum, which did not cross the midline, as well as massive colonic distention proximal to the sigmoid stricture, with a large fecaloma measuring 18x13x7cm (Fig 1). She was treated with nasogastric decompression, which resulted in spontaneous reduction of the volvulus and decompression of the stomach.

Case

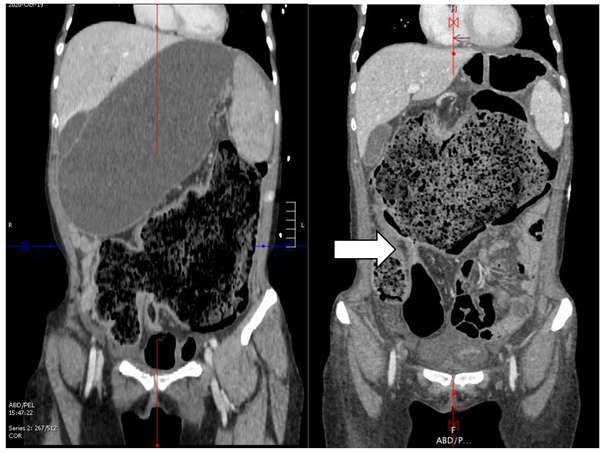


Figure 1. Coronal views of CT abdomen/pelvis demonstrates distended stomach and a giant fecaloma in the colon proximal to sigmoid stricture (arrow).



Figure 2. Total abdominal colectomy specimen shows the massively distended colon fused together from sigmoid to ascending colon.

Case

EGD demonstrated duodenal mucosal atrophy associated with dilation of the bowel. Flexible sigmoidoscopy demonstrated a sigmoid ulcerated stricture. She was ultimately taken to the operating room and found to have a sigmoid stricture with associated fistula to the ascending colon. She had evidence of congenital malrotation and malfixation of the intestine with the majority of her colon on the right side, and the majority of her small bowel on the left side of her abdomen covered in a congenital cocoon of peritoneum. There was a congenital defect in the left colon mesentery through which the ileum traversed to join the cecum. She underwent total abdominal colectomy with ileorectal anastomosis (Fig 2) and fixation of the small bowel mesentery to the retroperitoneum. She had an uncomplicated recovery, was discharged home on postoperative day 4, and was doing well at last follow up.

Discussion

It appears that midgut volvulus in this case was prompted by rotation of the massively distended and heavy colon proximal to the sigmoid Crohn's stricture, which prompted complete volvulus in a patient with occult congenital malrotation. Total abdominal colectomy and fixation of the mesentery addressed both problems simultaneously