Transverse Colonic Volvulus Presenting In A 19-Year-Old Female With Subsequent Sigmoid Volvulus

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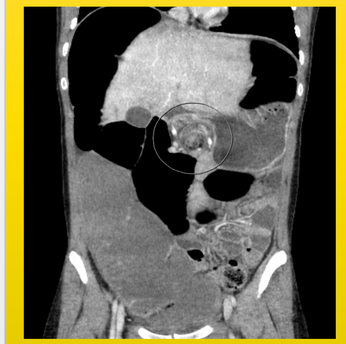
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Introduction

Transverse colonic volvulus (TCV) is exceptionally rare and even more rare in teenagers to young adults. A systematic review found 317 TCV cases (0.94%) in patient data over 90 years, and was most commonly seen in patients in their 3rd or 4th decade of life. We present a 19-year-old female who was diagnosed with TCV.

Figure 1

CT of the abdomen performed on day 1 of admission. Shows colonic distension with volvulus at the splenic flexure.



Case Report

A 19-year-old female presented to the emergency department with complaints of epigastric abdominal pain, nausea, vomiting, and no bowel movements for 4 days. Past medical history consisted of irritable bowel syndrome, gastroparesis, depression and anxiety, eosinophilic esophagitis, and opioid abuse. Past surgical history included upper and lower endoscopy and genital wart ablation. Family history included a brother with ulcerative colitis. On examination, her abdomen was tympanic and distended with epigastric tenderness without guarding or rebound tenderness. CT scan (Figure 1) showed distension of the colon due volvulus at the splenic flexure with narrowing of the mesenteric vasculature and free fluid in the abdomen. The patient was emergently taken for an exploratory laparotomy. Intraoperatively, the distal transverse colon was found to be the point of obstruction. Extended right colectomy was performed with ileocolic anastomosis. Eight days post-operation, a CT scan was performed after recurrence of symptoms showing proximal small bowel dilatation (Figure 2). Repeat exploratory laparotomy was performed, discovering large bowel obstruction secondary to sigmoid volvulus. Completion colectomy with end ileostomy was performed.

Discussion

TCV is a rare cause of large bowel obstruction due to anatomical protective factors including fixation of the hepatic and splenic flexures and shorter mesentery. When it does occur, it most commonly involves the splenic flexure. Risk factors for colonic volvulus in general are surgeries involving bowel translocation, malignancy, and malrotation. Chilaiditi syndrome, a benign congenital defect where a segment of intestine lies between the liver and the diaphragm, is also specifically correlated to predisposing patients to TCV, as well as constipation. The extensive dilatation of the transverse colon puts it at risk for future twisting. Timely diagnosis is critical to prevent the need for resection of the large bowel. Due to its rarity and high mortality, it is at the utmost importance for surgeons to be aware of TCV and keep it on their differential even in a younger patient.

Figure 2

CT of the abdomen performed 8 days post operation. Shows proximal dilatation of the small bowel.



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