INTERESTING CLINICAL IMAGE:

Colonic “double twist”

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ABSTRACT

A case of a middle-aged man with simultaneous sigmoid and transverse colonic volvuli is described. Preoperative radiograph and intraoperative photographs are presented. A discussion of simultaneous volvuli involving more than one colonic segment then follows, including diagnostic and treatment considerations.


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CASE PRESENTATION

A middle-aged man presented to the Emergency Department with 24 hours of progressively worsening acute on chronic abdominal pain. The patient denied fevers, chills, nausea, or vomiting, but noted worsening constipation for approximately 4-5 days. He also related a history of baseline chronic abdominal distention. Physical examination at presentation revealed mild diffuse abdominal tenderness without peritoneal signs. The patient had a nasogastric tube placed for bowel decompression and was admitted for observation. Over the next two days the patient had progressive obstipation and increasing abdominal pain. Abdominal radiograph on hospital day 2 demonstrated dilated loops of bowel consistent with “coffee bean” or “bent inner tube” sign (Figure 1) and diagnosis of colonic volvulus was made.

Exploratory laparotomy revealed simultaneous presence of transverse and sigmoid colonic volvuli (Figure 2). The affected segments were resected and an end-transverse colostomy was created. The patient was discharged after an uneventful 5-day postoperative recovery. He was doing well on subsequent outpatient follow-up.

Figure 1. Acute abdominal series demonstrates “coffee bean” or “bent inner tube” sign.

Figure 2. Intraoperative photographs showing double colonic volvulus. Note that both the transverse and the sigmoid colonic segments are involved. The small bowel is seen projecting toward the right side of the surgical field.
Transverse colonic volvulus is very rare. Cases involving simultaneous volvulus of the transverse colon and another colonic segment are exceedingly rare. In single-site colonic volvulus, the most common location is the cecum (52%) followed by sigmoid colon (43%), transverse colon (3%), and the splenic flexure. The overall mortality may be as high as 14%. Predisposing factors for colonic volvulus include history of multiple intraabdominal adhesions, congenital malformations or absent ligamentous fixation of the colon, acquired megacolon (i.e., delayed presentation of Hirschsprung’s or Chagas disease). Dolichocolon is a clinical condition involving elongation and dilation of the colon, most commonly seen in elderly patients. It has been suggested that these patients should also be considered to be at increased risk for development of colonic volvulus.

In the absence of clinical or radiologic signs of perforation or necrosis, initial management of colonic volvulus may include colonoscopic derotation and decompression. Successful endoscopic therapy provides an opportunity to perform an elective resection of the involved colonic segment following adequate bowel preparation and any required non-surgical preoperative optimization (i.e., cardiac and respiratory clearance). Emergent surgery should be performed if endoscopic therapy is unsuccessful, if complete obstruction persists for more than 24 hours, if peritonitis or perforation develop during the observation period, or whenever ischemia or necrosis cannot be ruled out.

REFERENCES