



Rare Case of Cecal Volvulus Presenting as Intestinal Obstruction

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Abstract

Cecal volvulus is a rare cause of large bowel obstruction. It is responsible for 1% of all adult intestinal Obstructions. It develops due to an abnormal mobility of the ileocecal loop because lacking attachment to ascending colon. We present the case of a 70-year-old female who presented to our surgical department with symptoms of intestinal obstruction. Various radiological investigations supported the diagnosis of sub-acute intestinal obstruction. She was subsequently managed by an exploratory laparotomy. During laparotomy, findings revealed a hugely dilated bowel loop with serosal tears. There was a twist of dilated cecum and ascending colon on its mesentery. The twist in the mesentery was released and serosal tears repaired. Cecopexy with extraction of faecolith performed. The postoperative course was uncomplicated so patient was discharged after 7 days. A physician should be aware of presence of this and subsequent management options so that clinical outcomes are improved.

Keywords: Cecal Volvulus; Intestinal Obstruction

Introduction

Cecal volvulus is a rare cause of intestinal obstruction. The incidence of this condition is estimated at 2.8 to 7.1 cases per million patients annually. This constitutes approximately 1 - 1.5% of all causes of intestinal obstruction in adults [1,2]. The most common signs associated with it are abdominal pain, constipation and vomiting; none of which are specific for the condition [3]. Surgical intervention is the only treatment.

Case Report

A 70-year-old female presented to the hospital with pain in abdomen, abdominal distention and vomiting since 5 days. She reported she had not a bowel movement in 6 days and also, she had on and off fever since 5-6 months. Vital signs were stable and on the abdomen examination abdomen was distended and bowel loops were visible. Laboratory findings showed a leukocyte count of 12,600/cumm, whereas the hemoglobin and BSL values were

12.2 gm% and 96 mg/dl, respectively. RFTs and LFTs were within normal range. Computed tomography (CT) of the abdomen and pelvis showed no evidence of appendicitis nor renal, hepatic, adrenal, pancreatic or bladder abnormalities. The radiologist noted free fluid seen in pelvis with multiple enlarged small bowel mesenteric lymph nodes, the streakiness of mesenteric fat, wall thickening of distal ileal loop and dilated small loops with air fluid level s/o Acute Intestinal Obstruction. Parenchymal infiltration is seen in bilateral lungs (Figure 1) Abdomen pelvic X-ray, revealed dilated bowel loops with gaseous abdomen (Figure 2) We diagnosed intestinal obstruction as the primary cause of the symptoms and planned an explorative laparotomy. During the laparotomy, there was approximately 100-200 cc serous fluid in the peritoneal cavity and a hugely dilated bowel loop visible with serosal tears. On further exploration, that hugely dilated loop was cecum and ascending colon twisted on its mesentery in the regions of the Right lumbar quadrant (Figure 3) The twist in the mesentery was released

(Figure 4) There were multiple fecoliths in Transverse colon and sigmoid colon, which were pushed manually to the rectum. The transverse and sigmoid colon were not dilated. Mild to moderate dilatation of ileal loops was present. Serosal tears were repaired with silk 2-0 interrupted, cecopexy done to the lateral abdominal wall after incising the lateral peritoneal fold, with interrupted silk 2-0 sutures. Through peritoneal lavage done. Drainage tube put in Right paracolic space. Closure done in layers A/S dressing applied. The postoperative course was uncomplicated so patient was discharged after 7 days.

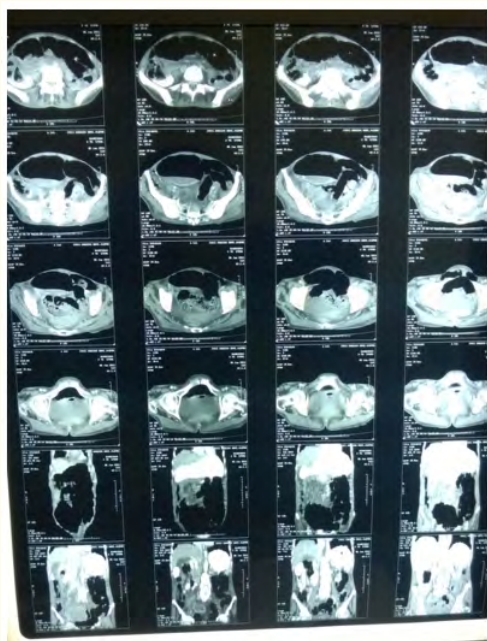


Figure 1: CT abdomen and pelvis showing free fluid with multiple enlarged small bowel mesenteric lymph nodes and dilated small loops.



Figure 2: Dilated bowel loops with gaseous abdomen.

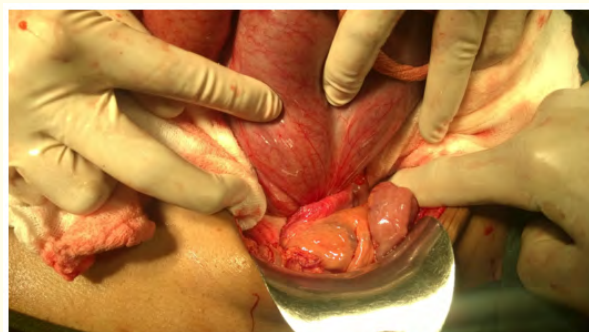


Figure 3: Dilated cecum and ascending colon twisted on its mesentery.



Figure 4: The twist of dilated cecum and ascending colon was released.

Discussion

Caecal volvulus develops by the presence of an excessive mobile cecum or incomplete fixation of the ascending colon to the retroperitoneum during embryogenesis. Additionally, caecal volvulus can be described as organoaxial (true caecal or caecocolic volvulus) or mesenteroaxial (cecal bascule) [1]. Presenting signs and symptoms may be acute or insidious, including nonspecific abdominal pain, distension, nausea, vomiting and constipation, the intensity of which depends on the degree of obstruction and ischemia [2]. In our case the patient had complained of the pain in abdomen, abdominal distention and vomitings. As per radiographic reports and physical examination patient was diagnosed as intestinal obstruction, but during the surgery, we diagnosed that intestinal obstruction was due to caecal volvulus. Overall, radiographic studies confirm the diagnosis of caecal volvulus 90% of the time and 10% diagnosed at surgery [4]. Caecal volvulus accounts for 1% of all causes of large bowel obstruction [5]. Rapid diagnosis, resuscitation and surgery are imperative as the mortality rate in gangrenous caecal volvulus is 17 - 40% [6]. Conservative management is not recommended because of the high risk of ischemia, and surgical

detorsion alone carries a high rate of recurrence (20% - 75%) [2]. Retrospective case series have shown the lowest morbidity and recurrence with surgical cecal resection, as opposed to alternative procedures such as cecopexy and cecostomy [7].

Conclusion

This rare cause of intestinal obstruction might be overlooked during the first few days, it can lead to cecal necrosis and may result in a high preoperative mortality rate. Prompt recognition and urgent treatment may avoid gangrenous changes of the bowel.

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