Is it a Volvulus? A Case of Idiopathic Megacolon

Ang Kai Yun, and Ooi Chee Kheong*
Department of Emergency, Tan Tock Seng Hospital, Singapore

Abstract

Idiopathic megacolon refers to the permanent dilatation of the colon without an identifiable cause. Patients usually present with chronic constipation. Volvulus is a known complication of this condition. We present a case of a 31-year-old woman who presents with abdominal pain and distension. She was initially diagnosed with sigmoid volvulus based on clinical and abdominal radiograph findings. Computed tomography of the abdomen and pelvis showed abnormal dilatation of the colon with no signs of volvulus. Colonoscopy revealed no obvious obstructive causes. A follow up colonography two months later showed persistent colonic dilatation, hence idiopathic megacolon was diagnosed. The radiographic findings of idiopathic megacolon may be dramatic and mimic the appearance of large bowel volvulus. It is a reasonable diagnosis to consider since both diagnoses may present with abdominal symptoms. It is prudent for the emergency physician to consider the more serious diagnosis of volvulus by further imaging and surgical consult.

ABBREVIATIONS

ED: Emergency Department; CTAP: Computed Tomography of Abdomen and Pelvis

INTRODUCTION

Idiopathic megacolon refers to the permanent dilatation of the colon without an identifiable cause [1]. The prevalence of this condition is unknown. Patients usually present with chronic constipation not relieved with medical treatment. We present a case of a 31-year-old woman who presented with abdominal pain and distension. She was later diagnosed with idiopathic megacolon.

CASE PRESENTATION

A 31-year-old woman presented to the emergency department (ED) with abdominal pain of two days duration. She described it as an intermittent sharp cramp localized in the left iliac fossa, non-radiating in nature and not related to food intake. This was associated with occasional abdominal distension since her caesarean delivery a year ago. There was no history of previous abdominal surgery. She denied any recent change in bowel habits or history of chronic constipation or laxative use. She denied having any chronic medical or psychiatric history. On physical examination, the abdomen was distended with no localized tenderness or guarding. Bowel sounds were active. Her laboratory results, including full blood count, electrolytes and liver function tests were normal. Abdominal X-rays revealed gross dilatation of a large bowel loop extending from the lower abdomen up to the diaphragm, suggestive of the northern exposure sign (Figure 1) [2]. The clinical impression was abdominal distension due to sigmoid volvulus. The surgical team was consulted in the ED. Proctoscopy did not reveal any abnormalities, nor did it resolve the abdominal distension with no obstructive mass or predisposing causes visualized (Figure 2). There was also no evidence of pneumoperitoneum or intestinal obstruction. There was an incidental finding of absent right kidney. The patient...
subsequently underwent flexible sigmoidoscopy and colonoscopy whilst admitted. Both revealed an extremely capacious sigmoid colon with no twisting or volvulus. She was discharged well two days later. A follow up colonography scan performed two months later showed extensive large bowel dilatation measuring up to 8.2 cm later showed persistent dilatation of the colon.

DISCUSSION

The initial concern for our patient was sigmoid volvulus based on clinical and radiological findings. However, the diagnosis of volvulus was excluded based on CT and endoscopic findings. Her symptoms which started in adulthood without gastrointestinal symptoms during childhood made Hirschsprung’s disease unlikely. There was also no other symptoms and signs of infection, endocrinopathies or connective tissue diseases. The fact that the colonic distension persisted two months after discharge points towards the diagnosis of idiopathic megacolon.

Idiopathic megacolon describes the abnormal dilatation of the colon (usually more than 8 cm) with no identifiable causes such as mechanical obstruction or volvulus [3]. It affects both sexes equally [4]. The pathophysiology of this condition is not well studied. Histological studies show that patients with idiopathic megacolon have a defect in the smooth muscle synthesis within the gut wall [5]. Chronic constipation and abdominal distension are common symptoms [6]. The diagnosis is made clinically and radiologically. If Hirschsprung’s disease is suspected, contrast enema, anorectal manometry or full thickness rectal biopsy should be performed. Medical treatment of idiopathic megacolon include long term laxatives. If the symptoms become intractable or complications such as volvulus develop, surgical treatment includes colectomy with ileorectal anastomosis [7].

The radiographic findings of idiopathic megacolon maybe dramatic and mimic the appearance of large bowel volvulus due to the abnormal dilatation of the colon. Typical radiographic findings of sigmoid volvulus include coffee bean sign or northern exposure sign. It is a reasonable diagnosis to consider since both diagnoses may present with abdominal symptoms. Moreover, volvulus is a known complication of idiopathic megacolon. It is prudent for the emergency physician to consider the more serious diagnosis of volvulus by further imaging and surgical consult.

REFERENCES