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Sigmoid volvulus in 38 years old male patient- A case report

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Abstract

Sigmoid volvulus (SV) is the third leading cause of large bowel obstruction. We reported a case of Sigmoid volvulus (SV) in 38 years old male patient.

Keywords: Sigmoid volvulus, bowel, Obstruction

Introduction

Sigmoid volvulus (SV) is frequently reported in the “volvulus belt” and is the third leading cause of large bowel obstruction. It is an uncommon problem in children and adolescents, and is rarely considered a diagnosis in this group. Sigmoid volvulus is an exceptionally rare and potentially life-threatening condition in the pediatric age group. A high index of suspicion is necessary to reach a diagnosis and avoid morbidity and mortality [1].

SV is in majority among males between 40 and 80 years of age. It is more common among Eastern countries and accounts for about 20% to 50% cases of colonic obstructions.² However, SV is responsible for about 2% to 5% of colonic obstruction cases in the Western world. In the United States, the annual incidence of SV has been reported to be 1.67 in 100,000 persons. While SV is common in the elderly, it is rare in children and can resolve spontaneously. Because of this, the diagnosis is usually missed or delayed [3] The majority of patients with SV present with the insidious onset of slowly progressive nausea, abdominal pain and distention, and vomiting after the onset of pain for several days. It is often relieved by the passage of stool or flatus, and therefore constipation is a common misdiagnosis. Due to its insidious presentation, most patients present 3 to 4 days after the onset of symptoms. If SV is untreated, it may progress to ischemic colon, hemorrhagic infarction, and even death; as these consequences are potentially life-threatening, physicians should consider SV in the differential for patients presenting with acute or recurrent abdominal pain and bowel obstruction [4]. We reported a case of Sigmoid volvulus (SV) in 38 years old male patient.

Case report

A 38 years old male patient visited the department of general surgery with complaint of colicky abdominal pain, vomiting, and constipation. Physical examination showed a distended tympanic abdomen that was soft all over with no tenderness. Bowel sounds were sluggish and a digital rectal examination revealed an empty rectum. Patient was subjected to abdomen x ray which revealed dilated loop of bowel, arising from the pelvis. The plain abdominal radiograph confirmed the presence of a sigmoid volvulus.

We performed endoscopic decompression of the volvulus under general anesthesia. A rectal tube was left in place post endoscopic reduction for 24 hours. The volvulus could not be decompressed non-operatively, so patient underwent sigmoidectomy. Patient was discharged on the 4th postoperative day. Prognosis was good.

Discussion

Volvulus can develop in any portion of the large bowel; however, it is most common in the sigmoid colon because of the mesenteric anatomy [5]. SV occurs when a redundant sigmoid loop rotates around its narrow and elongated mesentery leading to venous and arterial obstruction of the affected segment followed by rapid distention of the closed loop. If untreated, it can result in hemorrhagic infarction, perforation, septic shock, and death. Obstruction of the intestinal lumen and impairment of vascular perfusion occurs when the degree of torsion exceeds 180° and 360°, respectively. This is consistent with our patient, where his SV was twisted at about 270° so that the barium enema could not pass from his rectum to his descending colon [6].

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We reported a case of Sigmoid volvulus (SV) in 38 years old male patient.

The diagnosis of SV is made from a detailed history, physical examination, and careful interpretation of plain abdominal films. The diagnostic findings of SV include a whirlpool pattern caused by the dilated sigmoid colon around its mesocolon and vessels, and a bird-beak appearance of the afferent and efferent colonic segments [7]. However, abdominal X-rays in children are often nonspecific and are less useful in distinguishing volvulus from other disorders. In addition, typical imaging features have been reported to be absent in one-fourth of CT scans, as with our patient. A gas pattern is often not helpful diagnostically, and the single U-shaped sigmoid loop characteristic of SV is absent in adults [8].

Other supportive features of SV include the absence of rectal gas, apparent separation of the sigmoid walls by adjacent mesenteric fat due to incomplete twisting or folding (split wall sign), and 2 crossing sigmoid transition points projecting from a single location. In addition, when a dilated, twisted sigmoid colon is seen in association with a proximal obstruction, the findings are diagnostic; the diagnosis of SV cannot be made from plain films unless this configuration is seen [9].

Parolini *et al.* [10] presented a case of a 12-year-old boy with mechanical ileus who was finally confirmed to have SV with the combination of abdominal plain film, sonography, and computed tomography (CT) with the finding of mesenteric artery rotation. Because bowel obstruction was suspected, abdominal plain film, sonography, and CT were performed. The abdominal CT demonstrated whirlpool sign with torsion of the sigmoid vessels. In addition, lower gastrointestinal filling study showed that the contrast medium could only reach the upper descending colon. Therefore, he received laparotomy with mesosigmoidoplasty for detorsion of the sigmoid. The postoperative recovery was smooth under empirical antibiotic treatment with cefazolin. A follow-up lower gastrointestinal series on the seventh day of admission showed no obstruction compared with the previous series.

Conclusion

Authors found that Sigmoid volvulus (SV) can be managed with early diagnosis and prompt treatment.

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