A rare case of isolated cecal volvulus with a congenital band

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We present a typical case isolated cecal volvulus with the congenital band, leading to intestinal obstruction, which was managed surgically by resection and anastomosis along with a diversion ileostomy. This is a rare entity caused by torsion of the cecum around its mesentery. Hence, there is a definite need for observation after surgery.

KEY WORDS: Cecal volvulus, congenital band, intestinal obstruction

INTRODUCTION

One of the uncommon reasons for intestinal obstruction is cecal volvulus[1] which comes about due to self-rotating of the cecum around its mesentery, leading to not passing of stool and flatus, that is an obstruction. After sigmoid volvulus, cecal volvulus[2] is the next most common kind of colonic volvulus, representing 10–40% of all the colon-related volvulus. If one does not recognize the disease on time, then it can lead to gut perforation and fecal peritonitis. In common practice, incomplete malrotation is the basis for cecal volvulus to take place. If diagnosed timely one can prevent deaths, taking place as a result of a closed loop obstruction that with time leads to gut gangrene and perforation. Clinical features with which the patient presents can be varied, which lead to delay in the diagnosis. The disease has a poor prognosis with a mortality rate of 0–40% based on bowel viability or gangrene.[1,3]

In this report, we exhibit a 65-year-old patient with cecal volvulus with mobile cecum with a congenital band.

CASE REPORT

A 65-year-old male was brought to emergency with a history of colicky pain and lump over the suprapubic region, mimicking to the bladder from the past 2 days, with not passing flatus and stool from 1 day. There was no previous history of a similar attack in the past. On examination, the abdomen was soft, with a well-circumscribed lump in the lower abdomen. Laboratory works were within normal limits. Plain abdominal X-ray and contrast computed tomography (CT) [Figures 1 and 2] of the abdomen confirmed the diagnosis of a cecal volvulus with congenital band and malrotation of the gut.

The patient has consented for surgery, and an urgent laparotomy was performed after resuscitating the patient. Intraoperatively, we found a dilated cecum [Figure 3], with a stercoral ulcer at its base, with a long thick band wrapping cecum all around cecum and proximal ascending colon [Figure 4].
The cecum was mobile with a proximal dilated ileum, and visceral rotation was incomplete. A limited right hemicolecotomy was performed, and an end-to-side ileocecal anastomosis was done [Figure 5]. Post-operative period was uneventful and the patient did well. Histopathological examination reported the same findings.

**DISCUSSION**

The main cause for cecal volvulus is axial rotating of the cecum with part of the terminal ileum and of ascending colon.[4] The annual incidence of gut obstruction due to cecal volvulus is 2.8–7.1/million people, and the average age is 53 years. The average age in India is 33 years.[5,6] Anatomical condition leading to cecal volvulus is a mobile, redundant cecum and a fixed point of rotation.[7] Pathophysiologically, there are three types, Type I – cecal volvulus taking place due to axial torsion or twisting of the cecum along its mesentery, including ascending colon and terminal ileum, Type II – loop volvulus taking place due to counterclockwise axial torsion of the cecum around its mesentery, including the ascending colon and terminal ileum, and Type III – cecal bascule involves the upward folding of the cecum rather than axial twisting. Types 1 and 2 together comprise 80% of cases.[8,9] A mobile cecum and ascending colon are required for all three types, whether congenital or acquired.[10,11]
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Congenital failure of fusion of ascending colon mesentery and posterior parietal peritoneum is hypothesized to result in cecal volvulus.\textsuperscript{12,13} Other than all this, acquired anatomic abnormalities, such as surgical adhesions, congenital bands can also contribute to the development of a cecal volvulus. Clinical features of cecal volvulus are highly variable, which includes intermittent colicky abdominal pain, to severe acute pain associated with sepsis and bowel strangulation, as a result of ischemia to blood vessels due to obstructed, twisted mesenteric vessels.\textsuperscript{14} Other common symptoms with which the patient presents are distension, constipation, obstipation, and vomiting which are usually a very late feature. Radiodiagnosis is the mainstay in the diagnosis of this condition, as laboratory investigations are neither sensitive nor specific to this condition. Plain X-rays, CT scan, and contrast studies with water-soluble substance can diagnose the disease. CT scan is confirmatory for diagnosis in 90% of cases.\textsuperscript{10} Management includes surgery, which is right hemicolectomy or limited right hemicolectomy, like done by us in our case, with the restoration of bowel continuity or resection and anastomosis with a proximal diversion ileostomy if patient’s general condition is poor. Canthopexy with appendectomy could be done if the patient’s condition does not allow resection.

**CONCLUSION**

The annual incidence of gut obstruction due to caecal volvulus is 2.8–7.1/million people, and it should be kept in mind in case presenting with intermittent colicky abdominal pain, to severe acute pain associated with sepsis and bowel strangulation, as a result of ischemia to blood vessels due to obstructed, twisted mesenteric vessels.

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**REFERENCES**