CASE REPORT OPEN ACCESS

An Unusual Case of Cecal Volvulus

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ABSTRACT

Among acute causes of pain in abdomen and intestinal obstruction cecal volvulus is an uncommon condition. The clinical presentation is often variable which ranges from non specific sign and symptoms to severe un-relieving pain often leading to sepsis, perforation or bowel strangulation. A high index of suspicion is required to diagnose cecal volvulus, as initial presentation is usually non specific and non critical. We present a patient of cecal volvulus who underwent right hemicolectomy.

Key words *Cecal Volvulus, Intestinal obstruction, Hemicolectomy.*

INTRODUCTION:

Cecal volvulus (CV) is rare cause of intestinal obstruction as compared to sigmoid volvulus.[1] Major predisposing factors for CV are the presence of a mobile, redundant cecum and a fixed point of rotation.[2] Patients may have variable clinical presentations that leads to delay in diagnosis and treatment.[3] Surgical intervention is the only treatment of cecal volvulus. We report an adult female who presented with colicky abdominal pain.

CASE REPORT:

A 35-year old female with no known comorbids presented in emergency with complaints of severe colicky abdominal pain, more in right iliac fossa, and absolute constipation. This condition was associated with vomiting and abdominal bloating. Patient had similar symptoms two times earlier but of less severity and got relieved in a day with conservative treatment. In her second admission CT scan abdomen was done to rule out recurrent episode of subacute intestinal obstruction. In CT scan ill defined mild thickening of distal ileum, collapsed distal bowel loops, with mild ascites noted. Colonoscopy done showed nodularity of mucosa from rectum to transverse colon and due to narrowing, scope could not be negotiated further. Biopsy that was taken showed moderate chronic non specific colitis. With all the investigations no cause could be found and patient responded on conservative management, so she was discharged.

At recent presentation her condition was critical with B.P- 90/60 Hg, pulse- 120/min. Patient was febrile with distended tender abdomen, and exaggerated gut sounds. Plain abdominal radiograph showed distended bowel loop which on exploration was found to be cecum in left upper quadrant (Fig. I).

After initial stabilization patient underwent an emergent laparotomy. At exploration cecal volvulus found that involved terminal ileum and ascending colon. Cecum was found in left upper quadrant and counterclockwise rotated (type II). Right hemicolectomy with primary ileocolic anastomosis was done (Fig. 2 A & B). She was discharged after one week after uneventful recovery.

DISCUSSION:

Volvulus is the condition in which bowel becomes circumvolved around its mesenteric axis which can lead to partial or complete obstruction of bowel lumen and a variable degree of impairment of its blood supply. After sigmoid, cecal volvulus is next common type. Cecal volvulus incidence is reported as 2.8 to 7.1 per million people per year.[3]. Most of the cecal volvulus reports are from Asia.[4] The disease predominantly affects female patients of 40–60 years of age. There are 3 types of this condition: Type I - cecal volvulus in clockwise axis around mesenteric axis, including the ascending colon and terminal ileum, Type II - loop volvulus that occurs when there is counterclockwise axial rotation of the cecum around its mesentery, which include the ascending colon and terminal ileum, and Type III - CV develops with the upward folding of the cecum instead of axial

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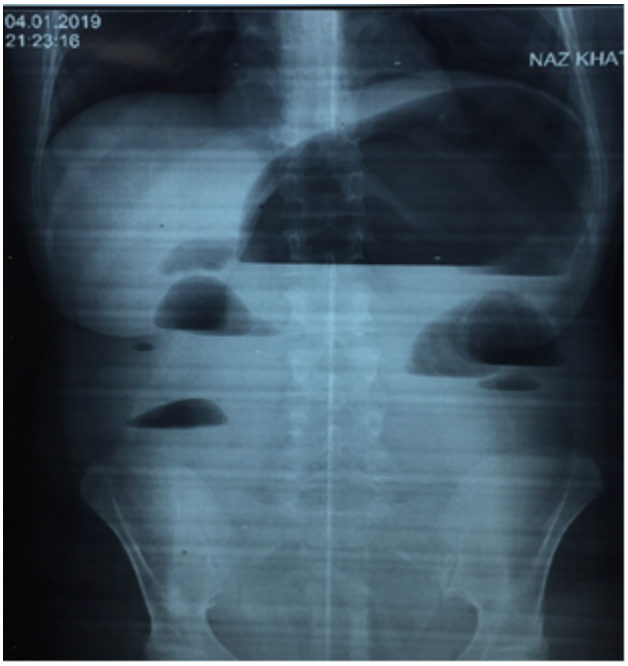

Fig I: Erect abdominal x-ray showing large air-fluid level in left upper part.

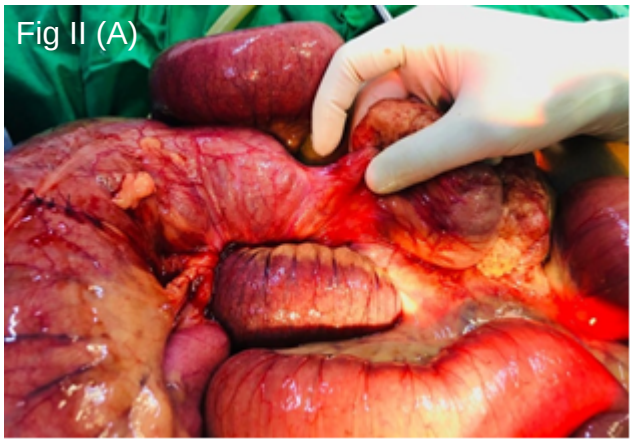

Fig II A & B: Cecal volvulus

twisting.[5,6] Our patient had type II cecal volvulus.

Presentation of patient is usually with nonspecific symptoms of bowel obstruction, including generalized abdominal pain, nausea, vomiting, constipation, and abdominal distension. The acute presentation can be preceded by a recurrent intermittent pattern of symptoms in half of the patients. This is referred to as the mobile cecum syndrome.[7] Physical examination may reveal asymmetrical abdominal distension with a tympanic mass palpable in left upper quadrant or mid-abdomen. Our patient had similar history and clinical findings.

Plain abdominal x-ray reveals a dilated distended cecum which generally assumes a gas-filled comma or coffee-bean. Contrast enema can sometimes be helpful to confirm the diagnosis and to exclude a carcinoma of distal bowel as a precipitating cause of volvulus. Although for acute abdomen contrast enhanced CT scan is commonly used in clinical practice which in case of cecal volvulus shows bird beak sign i.e. two ends of the volvulized loop of bowel converging at the site of torsion and whirl pool sign which is swirling pattern of mesenteric fat and engorged mesenteric vessels.[8]

Management options for this condition include endoscopic decompression, cecopexy, surgical detorsion, cecostomy, and right hemicolectomy. Right hemicolectomy is the best option as it has the benefit of preventing recurrence of cecal volvulus, whereas there is up to 40% recurrence rate in manual detorsion.[9] However ultimate decision of treatment option varies from preference of surgeon and patient's clinical condition or severity of illness. In our patient right hemicolectomy and anastomosis was performed and patient recovered well.

CONCLUSION:

Cecal volvulus is an unusual condition diagnosis of which may be delayed. In our case it was type II cecal volvulus in whom right hemicolectomy was performed.

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