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Original Research Paper

General Surgery

TRANSVERSE COLON VOLVULUS PRESENTING AS BOWEL OBSTRUCTION – CASE REPORTS AND REVIEW

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ABSTRACT

Introduction And Background: Transverse colon volvulus incidence is comparatively rare when compared to caecal and sigmoid volvulus. Incidence is one to four percent.Its diagnosis is still challenging for the surgeon. Delay in the diagnosis of this condition carries high morbidity and mortality rates.

KEYWORDS :

INTRODUCTION:

Large bowel obstruction is a common surgical emergency. Mechanical causes account for more than 60%, and colonic tumors account for about 20%. Colonic volvulus is involved only in 3–5% of all cases.

The most common site of colonic volvulus is the sigmoid colon. Transverse colon volvulus incidence is comparatively rare when compared to cecal volvulus and sigmoid volvulus. Its diagnosis is still challenging for the surgeon Transverse colon volvulus is an uncommon cause of bowel obstruction. Incidence is comparatively rare – one to four percent.

Presents with features of proximal large bowel obstruction. Usually associated with abdominal pain that is colicky in nature, vomiting and abdominal distension.

Diagnosis of transverse colon volvulus can be delayed and difficult because it does not have the same classically recognizable radiographic features as cecal and sigmoid volvuli. It constitutes a surgical emergency since it can lead to bowel infarction, peritonitis, and death if not diagnosed at once.

We report the following case of transverse colon volvulus which presented as large bowel obstruction in our hospital.

Case Report:

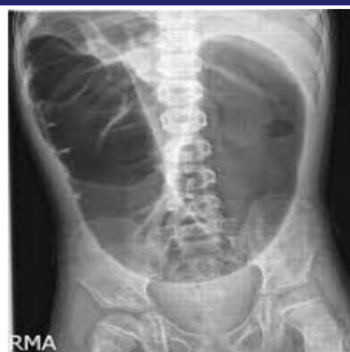
A 42 year old male presented with complaints of Abdominal distension, abdominal pain and constipation for 3 days. He has no comorbidities. No drug allergies were documented.

His vital signs, were: temperature 37.6 ◦C, pulse rate 102/minute, respiratory rate 18/minute, and blood pressure 140/70 mmHg. His SpO2 on room air was 98. His chest examination showed adequate air entry on both lungs.

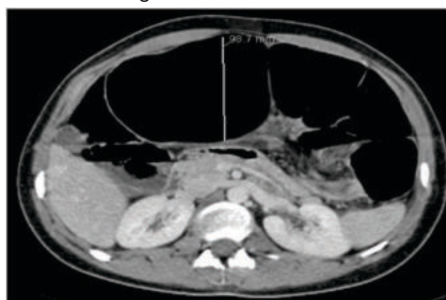
Abdominal examination revealed a massively distended abdomen with diffuse tenderness. There were no signs of peritonitis. It was tympanic on percussion. On auscultation, bowel sounds were exaggerated. Digital rectal examination showed collapsed rectum.

Basic investigations were done. His total count was found to be elevated [14300 cells per cubic millimeter]. His renal function test was found to be within normal limits.

X ray was taken which showed a massively dilated large bowel loop.

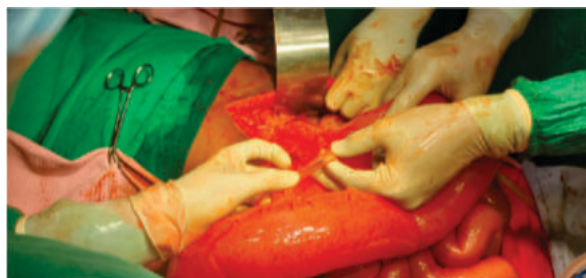


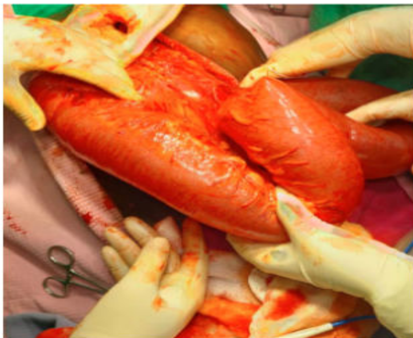
CT abdomen was done which was suggestive of transverse colon volvulus causing intestinal obstruction.

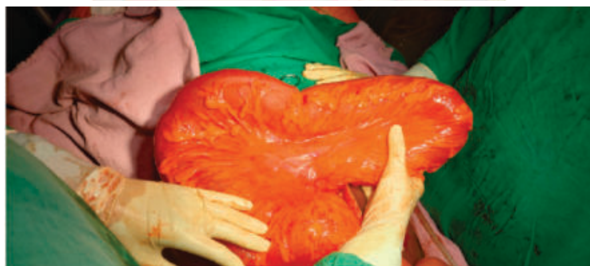


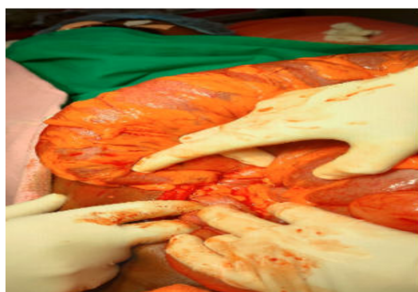
Ryles tube was inserted to decompress the stomach. Urinary catheter was inserted to monitor urine output.

After initial resuscitation, patient was taken up for emergency laparotomy. Abdomen was opened through midline laparotomy incision and peritoneum was entered. Intra operative findings showed 360 degree rotation of the transverse colon on its mesentery, resulting in obstruction. The transverse colon was lengthy and redundant. The bowel was healthy-looking with no gross signs of ischemia. The volvulus was detorsed in a counter-clockwise fashion.









Detorsion with resection and anastomosis was done. Post operative period was uneventful.

DISCUSSION :

Volvulus is twisting of the bowel along its mesentric axis. Different types of volvulus are gastric, midgut volvulus, volvulus neonatrum, cecal volvulus, sigmoid volvulus and transverse colon volvulus.

Predisposing factors are congenital, physiological and mechanical. The two congenital problems that causes volvulus are redundancy and non-fixation. Physiological causes include high roughage diet and large bowl distension secondary to chronic constipation and associated with psychiatric and neurologic diseases. Mechanical causes are previous volvulus of transverse or sigmoid colon, distal colonic obstruction, adhesion, malposition of colon fallowing previous surgery, mobility of right colon, inflammatory strictures and carcinoma.

The twisting of the intestine around the mesenteric axis is connected with closure of its loop, retention of the venous outflow because of the compression of the vessel, and, possibly, impaired arterial flow.

Transverse Colon Volvulus

Incidence is comparatively rare- 2 to three percent. It presents with features of proximal large bowel obstruction. It is usually associated with abdominal pain that is colicky in nature, vomiting and abdominal distension

The diagnosis of volvulus of the transverse colon before surgery is rarely observed. There are no characteristic radiographic features, as in the case of volvulus of the sigmoid colon. Some authors suggested that the presence of a distended colon with two levels of fluid in the epigastrium in X-ray may suggest the diagnosis. It is usually made intraoperatively. In the subacute type, the achievement of an early diagnosis through CT is advised.

Treatment involves detorsion and resection to prevent recurrence.

CONCLUSION :

Transverse colon volvulus is a rare entity. Usually occurs in adults with minor predisposing factors such as chronic constipation and redundant intestinal tissue. A swift suspicion of diagnosis is key to preventing severe outcomes. It can result in bowel perforation and fecal peritonitis. The definitive diagnosis is frequently made intra-operatively. Early surgical intervention is essential for better outcome and avoiding complications.