Caecal Bascule- A Case Report And Review Of Literature

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Abstract

Caecal volvulus is a malrotational abnormality of the intestine that causes obstruction. Diagnosis is difficult and, if delayed, the results may be intestinal ischemia, perforation, sepsis, and even death.

In the absence of ischemia, decompressive tube cecostomy, simple detorsion, and cecopexy have all been recommended, but the optimal treatment is a matter of controversy.

This young male was admitted for left renal calculus, and underwent Percutaneous Nephrolothotomy (PCNL), 5 days following which he presented with features of acute intestinal obstruction. He was diagnosed to have caecal volvulus with malrotation of gut. He had history of surgery (Anoplasty) done for anorectal malformation at birth.

Review of literature says- Caecal volvulus is occasionally precipitated after abdominal procedures which require variation in postion, which causes medial visceral rotation. Also volvulus is more commonly associated with congenital abnormalities like malrotation of gut, anorectal malformation etc. which our patient had.

Introduction

Cecal volvulus is second only to sigmoid volvulus in its frequency of occurrence. Diagnostic doubt is not uncommon in caecal volvulus; nonoperative decompression is rarely achievable; and if gangrene supervenes, mortality rises appreciably. Resection is mandatory for gangrene and a grossly distended, thin-walled caecum.

In the Caecal bascule type of volvulus, the Caecum folds anteromedial to the ascending colon, with the production of a flap-valve occlusion at the site of flexion. This form of torsion occurs in a transverse plane and is associated with marked distension of the Caecum, which is often displaced into the center of the abdomen.[5]

Caecal Bascule is a rare condition with incidence of about 10 % of cases of Caecal volvulus

Case Report(s)

23 years male patient with past H/O Anorectal Malformation, underwent anoplasty at 3 months of age. Underwent PCNL for left renal calculus 5 days before he presented to us with acute onset of pain abdomen, colicky, intermittent associated with bilious vomiting and obstipation since Post PCNL.

Physical examination was remarkable with P/A findings of distension, fullness in left Hypochondrium and epigastric region, presence of tenderness diffusely over the abdomen and P/R findings of empty Rectum.

Xray abdomen (Erect)- (Illustration- 2) showed Dilated large bowel loop noted in left hypochondrium with 2 fluid levels, measuring approx. 11 cms. No other dilated air filled bowel loops seen. Renal and Psoas shadows partially obscured by bowel loops.

USG abdomen- showed No free fluid in the abdomen. Pancreas and Paraaortic area obscured with bowel gas.

CT abdomen: (Illustrations 3,4,5) Grossly dilated caecum and ascending colon measuring approx-9 cms in maximum calibre occupying central position in the abdomen. Bowel wall enhancing normally on post contrast, no evidence of large bowel wall ischaemia noted. No evidence of pneumoperitoneum. Proximal small bowel loops are normal in calibre. Ileocaecal junction seen on left with part of ascending colon not seen.

Diagnosis of Caecal Volvulus with Malrotation was made and patient was taken up for exploratory laparotomy.

Intraoperative findings : (Illustrations 6,7,8,9)

On exploring, the torsion of ascending colon and caecum was noted with gross dilatation and were mobile. Malrotation of gut was present. Small bowel loops were pushed to right side behind ascending colon. Detorsion of the volvulus and appendicectomy followed by Caecopexy( fixed to right lateral abdominal wall) was done. Post op period was uneventful.

Discussion

Cecal volvulus is an uncommon cause of intestinal obstruction. Presumably, it is more likely to occur following any
surgical procedure which might require some degree of medial visceral rotation or disruption of the fusion plane between the cecum or ascending colon with the lateral peritoneum, providing sufficient mobility to allow for cecal volvulization to occur. (1) A constant feature of cecal bascule is the presence of a constricting band across the ascending colon; this may be found at laparotomy (2). Whereas midgut volvulus secondary to midgut malrotation is the most common and feared complication, there are instances where the defect is secondary to lack of fixation of the large bowel. (3) The purpose of this report is to describe an unusual and rare cause of colonic volvulus secondary to lack of fixation of the right side of the colon. Anomalies associated with malrotation include the following. (4) Trisomy 21, Congenital heart disease, imperforate anus, duodenal and jejunal atresia or duplication, Omphalocele, duodenal atresia and stenosis, diaphragmatic hernia, Meckel's diverticulum, VACTERL (vertebral, anal, cardiac, tracheal, esophageal, renal, limb) association of anomalies, Trisomy 13, trisomy 18, Esophageal atresia, Situs inversus and Asplenia (may be associated with biliary atresia), Kidney abnormalities etc.

Conclusion(s)

1. Caecal volvulus should be considered as a cause for intestinal obstruction in younger adults, especially in those having congenital anomalies.
2. Caecopexy is a surgical option in young adults presenting with caecal volvulus, who do not have any feature of perforation peritonitis or gangrene.

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Illustrations

Illustration 1

Illustration

Figure 1

Xray abdomen (Erect) - Dilated large bowel loop noted in left hypochondrium with 2 fluid levels, measuring approx. 11 cms. No other dilated air filled bowel loops seen. Renal and Psoas shadows partially obscured by bowel loops.
Figure 3 Dilated Caecum with mottled appearance (Faecal matter)

Figure 4 Twist in the Mesentry
Figure 5 Ileo-caecal junction on left side
Figure 7 Dilated caecum brought out in incision

Figure 8 Twist present with presence of Ileo-caecal junction on left side
Figure 9 Band across the Ascending colon
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