MULTIPLE MESENTERIC LYMPHADENOPATHY (AT THE ROOT) 
LEADING TO SMALL BOWEL VOLVULUS – A CASE REPORT

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ABSTRACT:
Small bowel volvulus (SBV) is an uncommon but potentially serious cause of small bowel obstruction, carrying an overall mortality rate of 10-35%. It presents with the classical features of intestinal obstruction. Intestinal malrotation is a common cause for midgut volvulus in infants but not in adults. The diagnosis should be particularly considered if the pain does not respond to narcotic analgesics. Due to the high mortality that can be caused by a delay in the correct diagnosis and following adequate surgical treatment, SBV represents a special diagnostic and surgical challenge. We report one such case which was diagnosed intraoperatively as SBV due to multiple mesenteric lymphadenopathy.

KEYWORDS:
small bowel volvulus, intestinal malrotation, mesenteric lymphadenopathy, emergency surgery

1. CASE REPORT:
A 18 year old female presented to emergency department with a three day history of severe diffuse abdomen pain and several hour history of vomiting, bleeding per rectum and rashes all over the body. Examination showed diffuse tenderness all over the abdomen. Other examination was unremarkable except for rashes all over the body. Her blood counts and erect x-ray abdomen showed crowding/ pincer of the gut and few air fluid levels in the infraumbilical area. (Figure 1)

Ultrasound showed mild to moderate quantity of free fluid in the pelvis. CT abdomen showed acute small bowel ischemic disease, horse shoe kidney and minimal pelvic free fluid. Her UPT was negative. Patient underwent emergency laprotomy. On entering the abdomen, following findings were found: (Figure 2,3,4)

1. Purulent intraperitoneal fluid of about 300 ml.
2. Malrotation with distension of jejunum near duodenojejunal junction.
3. Multiple patchy and ischemic changes of jejunum.
4. Multiple mesenteric lymphadenopathy

Derotation of the bowel was done but failed to reperfuse the affected bowel and ischemic changes persisted. Limited jejunal resection (proximal jejunum about 5”-6” from DJ junction) and anostomosis with mesenteric lymph node biopsy was done. (Figure 5) A thorough examination of the viscera was done for other abnormalities. (Figure 6)

Postoperatively patient had history of high systolic and retained clots passed per rectum which was managed medically. Patient was discharged on 10th post-operative day. She is on regular follow up with no complaints. Histopathological examination of the specimen shows feature of acute nonspecific enteritis.

2. DISCUSSION:
Small-bowel volvulus (SBV) is defined as abnormal twisting of a loop of small bowel around the axis of its own mesentery, which produces a mechanical bowel obstruction.[1] The complication of which can lead to torsion and occlusion of the mesenteric vasculature, which can lead to bowel ischemia and ultimately necrosis.[2] Overall mortality ranges from 10%–35% to 20%–100% if associated with bowel necrosis. Rates of 24–60 per 100 000 have been observed in Africa, Asia, the Middle East and India.[3,4] Although the aetiology is still poorly understood, several aetiological factors have been proposed. Duke and Yar [5] suggested that diet may be a factor as their
Figure 1- Erect X-ray Abdomen showing crowding/ pincer of the gut and few air fluid levels in the infraumbilical area.

Figure 2- Malrotation with distension of jejunum near duodenojejunal junction and multiple patchy and ischemic changes of jejunum.

Figure 3 and 4- Multiple mesenteric lymphadenopathy.

Figure 5- Limited jejunal resection (proximal jejunum about 3-6 ft from DJ junction) and anastomosis.

Figure 6- Post operative specimen of ischemic/gangrenous jejunum.
patients had eaten large quantities of fibre after prolonged fasting. Some had suggested an increase in gut motility in case of parasitism and consumption of local beer containing high concentrations of 5 hydroxy-tryptamine to be the cause for primary SBV. Secondary SBV is caused by anatomical anomalies (e.g., midgut malrotation) or acquired lesions (e.g., postsurgical adhesions).[3,4]

Non specific symptoms like abdominal pain, nausea and vomiting make the diagnosis tricky.[4] Important points to be noted in the history is intermittent, recurring abdominal pain that is usually periumbilical or epigastric and which may occur after ingestion of a meal.[1,2]

The severity of pain is directly related to the duration of vascular compromise but unrelated to the degree of intestinal obstruction. Peritoneal irritation, although a marker for urgent laparotomy, is also nonspecific and is estimated to be present in only a quarter of patients with SBV.[4]

Laboratory tests and plain radiographs are equally nonspecific. The imaging modality of choice is CT scanning.[2,3] Surgery is the mainstay of treatment, and it is required urgently in cases of suspected impending bowel necrosis.[3]

3. CONCLUSION:

Small bowel volvulus is rare but a serious cause for small bowel obstruction with a high significant mortality rates. Nonspecific symptoms make the diagnosis difficult. Plain radiographs and ultrasound abdomen are also nonspecific. CT abdomen and urgent emergency surgery should be considered as early as possible in suspected case to prevent complication.

4. REFERENCES:


