



A Rare Ca(U)Se of Small Bowel Obstruction-Spontaneous Trans Omental Hernia:

Affee Asma A, Sampath Kumar B, Ashiq Ahmed A

Institute of General Surgery, Madras Medical College, Chennai.

Abstract

Small bowel obstruction is a very common acute surgical emergency that needs immediate evaluation and treatment. The causes are adhesions, intussusception, bands, external and internal hernia(rare). Internal hernias are protrusions of the viscera through a peritoneal or mesenteric opening, with the herniated viscera remaining within the abdominal cavity. Incidence of Internal hernia is 0.2%–0.9% and it constitutes upto 0.6%–5.8% of all intestinal obstructions. Internal hernias occur through foramen of Winslow, paraduodenal fossa, ileocecal fossa, supramesocolic fossa, trans mesenteric defect and trans omental defect (rarest). We report one such case of trans omental hernia in a 55 yr old male

Keywords: Small bowel obstruction, Internal Hernia, Trans omental hernia

Case Report

55 year old male with no comorbidities presented with complaints of diffuse colicky abdominal pain for 3 days, vomiting 3-4 episodes per day not related to food intake & not bile/blood stained. History of constipation and low grade fever was present. No history of jaundice, malena or hematochezia. No history of recent trauma or previous surgery in past. On examination Pt conscious, oriented, afebrile, pulse- 94/min; BP- 110/70mm Hg. P/A: distended, diffuse tenderness, No mass palpable, No guarding or rigidity. No Scars/visible peristalsis. Tympanic on percussion and Hyperactive bowel sounds on auscultation. P/R: Normal tone, fecal stain present. Naso gastric tube inserted. He was treated with IV fluids and IV antibiotics. Blood investigations revealed leucocytosis and neutrophilia. X ray chest and Abdomen revealed dilated jejunal and ileal loops. USG abdomen revealed features suggestive of small bowel obstruction. CT abdomen revealed small bowel obstruction with presence of small bowel loops in lesser sac. Patient was taken up for emergency laparotomy.

Intra operative findings:

- 200 ml of peritoneal fluid.
- Ileal segment of about 30 cm, congested, herniating via a rent measuring 2x2 cm in the lower part of gastroduodenal omentum causing a closed loop obstruction
- On releasing the bowel from the omental rent, strictures noted at 50 and 70 cm from Ileocecal junction with in between dusky congested ileal segment.

The congested ileal segment was resected and end to end anastomosis was done. Omental defect repair also done. Thorough laparotomy done and no other abnormality detected and wound closed in layers. Oral diet started on the 5th POD and he was discharged on the 8th POD and is on regular follow up.

X ray abdomen shows the dilated small bowel loops



CT abdomen showing small bowel loops in Lesser sac



Intra operative findings:

30 cm congested and dusky ileal loop, 70 cm from ileo cecal junction, herniating via a rent measuring 2x2cm in the lower part of gastrocolic omentum causing a closed loop obstruction





Discussion

Internal hernias are protrusions of the viscera through a peritoneal or mesenteric opening, with the herniated viscera remaining within the abdominal cavity. The incidence of Internal hernia is 0.2%-0.9% and it constitutes up to 0.6%–5.8% of all intestinal obstructions. The opening through which internal hernia occurs are

- Normal anatomy - Foramen of Winslow
- Paranormal anatomy - Paraduodenal, Ileocecal, Supravesical fossa
- Abnormal anatomy – Trans mesenteric and Trans omental defect (rarest)

The incidence of Trans omental hernia is 1%–4% of internal hernias (Rarest). Common after 50 years. Hernia sac is absent. The causes for this condition are Congenital (Commonest), Acquired causes follows surgery, trauma and peritoneal inflammation. The spontaneous trans omental hernia (rarest) is due to senile atrophy. Usually the defect in greater omentum will be 2-7 cm. The clinical features are usually non specific with ambiguous symptoms. Mostly affected individuals will present in late stages of intestinal obstruction and it carries high peri operative mortality due to delay in diagnosis.

Yamaguchi classification of Trans omental Hernia :

- Type A : Peritoneal cavity to Greater omentum to Peritoneal cavity
- Type B : Peritoneal cavity to Omental bursa to Peritoneal cavity
- Type C : Peritoneal cavity to Omental bursa

The radiological diagnosis is often difficult. The Passage of mesenteric vessels through greater omentum with stretched bowel loop (swirling pattern) and presence of bowel loops between stomach and pancreas (Gastro colic ligament) may be present in some cases. Diagnosis often made intraoperatively at a complicated phase following irreversible bowel strangulation. The treatment involves reduction of herniated bowel, resection if bowel is necrosed and repair of omental defect or total omentectomy. High postoperative mortality rate of 30%

Conclusion

Even without risk factors of previous abdominal surgery, trauma or peritoneal inflammation the possibility of small bowel obstruction secondary to Internal hernia should be considered. Surgical treatment based on high clinical suspicion can reduce the risk of complications and post operative mortality in patients with Trans omental Hernia

This case is reported for its rarity. Internal Hernia is a rare cause (<1%) of bowel obstruction and trans omental hernia is rarest (4%) among internal hernias and Spontaneous Trans omental hernia being the rarest among the group and hardly very few cases were reported in literature.

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