

Case report

Left paraduodenal hernia: Case Report

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Abstract:

Internal hernias mainly result from the extension of the intestine through a defect within the peritoneum or mesentery . They may be either congenital or acquired. Paraduodenal hernia (PDH) is a rare congenital anomaly that results from an error of rotation of the midgut . PDHs are the most common form of internal hernias, accounting for 53% of all internal hernias . PDHs are difficult to diagnose because the clinical symptoms are variable. Herewith we reported , a 28 year old male patient came to casualty with –c/o Pain in abdomen since 1month was admitted. This was associated with h/o abdominal distention since 4days , h/o not passing stool since 2days , h/o multiple episodes of vomiting since 2 days which was bilious & non projectile in nature . Paraduodenal hernia is very rare, and preoperative diagnosis is difficult because there are no specific symptoms or physical examination findings.

Introduction:

Internal hernias mainly result from the extension of the intestine through a defect within the peritoneum or mesentery (1). They may be either congenital or acquired. Paraduodenal hernia (PDH) is a rare congenital anomaly that results from an error of rotation of the midgut (2). PDHs are the most common form of internal hernias, accounting for 53% of all internal hernias (3). PDHs are difficult to diagnose because the clinical symptoms are variable (4). PDH can begin with symptoms of acute obstruction or recurring abdominal pain (43%) or can be asymptomatic throughout the patient's life. Between 10% and 50% of internal hernias are discovered during unrelated abdominal surgeries or imaging exams and autopsy (5). Preoperative computerized tomography scan of the abdomen is usually diagnostic; however, the diagnosis is often made intra-operatively. Surgical treatment can be performed with traditional open methods or minimally invasive laparoscopic techniques. We describe herein the preoperative radiological diagnosis and a successful laparoscopic repair of a left PDH in an adult man.

Case Presentation:

A 28 year old male patient came to casualty with –c/o Pain in abdomen since 1month was admitted. This was associated with h/o abdominal distention since 4days , h/o not passing stool since 2days , h/o multiple episodes of vomiting since 2 days which was bilious & non projectile in nature

Clinical examination :

P- 110 bpm

Bp – 100/60 mm go hg

Per abdomen –

Abdomen distended

Generalized guarding +

Generalized tenderness +

PR

Faecal Stain +

Management

❑ Laboratory investigations were sent and were within normal limits .

❑ Radiological investigations-

X – ray abdomen erect_distended bowel loops with few air fluid levels in right lumbar region



Fig 1) X ray – Abdomen

USG A+P

Few of the small bowel loops (jejunal) appears dilated with maximum diameter 3.1 cm showing to and fro sluggish peristalsis in left peri-umbilical (lumbar) region. Few of the dilated small bowel loops show edematous thickness of max 5 mm. how ever show vascularity on Doppler study.

SMA and SMV shows normal relation. Above finding suggestive of

1: closed loop small bowel obstruction.

2: Para-duodenal hernia

CECT A+P (iv + oral contrast)

- ✓ Distended small bowel loops (jejunum) with max diameter 2.9cm noted in left paraumbilical region which is surrounded by a sac, sac contains mild fluid within with edematous bowel loops.

✓ No e/o dilatation of proximal bowel loops

No e/o free retroluminal air

Mesentery surrounding the herniated bowel sac appears engorged with twist in the mesentery *f/s/o internal hernia likely left paraduodenal hernia with start of closed loop obstruction*

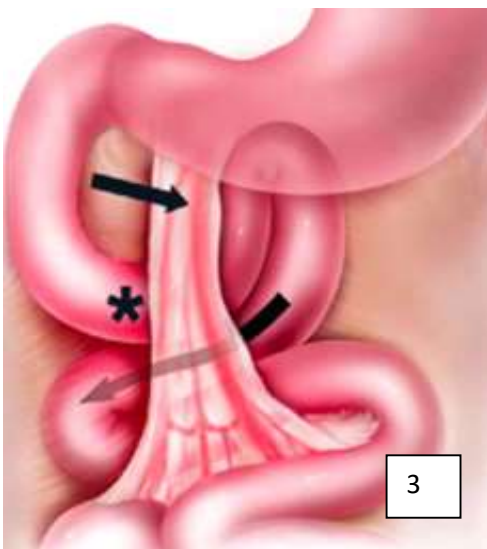
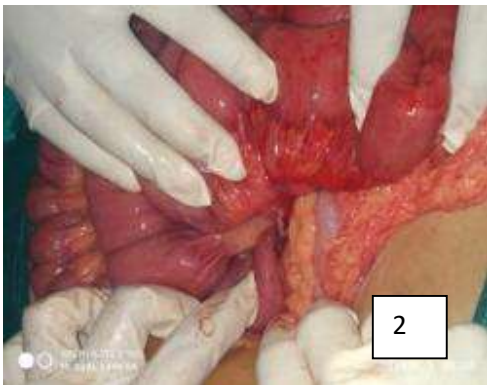
Surgical procedure :

All preoperative investigations were completed and the decision to explore the patient in an emergency setup was taken .

Abdomen explored with midline incision

Intra operative Evidence of -

1. 2.5cm defect in mesentery near 4th part of duodenum
2. Left paraduodenal hernia seen through the mesentery with herniation of jejunal loops
3. Herniated loops were viable with active peristalsis seen
4. Constriction ring evident at 40cms from DJ flexure on jejunum, ring formed at the site of rent in the mesentery.





Post-op care

- Patient was managed aggressively in post operative period with iv fluids and injectable antibiotics
- Started oral sips on POD 3 and full diet on POD 4
- Patient discharged on POD5 and asked for f/u after 7days in OPD

Discussion:

Paraduodenal hernia carries an approximately 50% lifetime risk of incarceration, leading to bowel obstruction and strangulation; therefore, it should be repaired surgically when diagnosed (4, 6). Surgical treatment can be performed with conventional open methods or minimally invasive laparoscopic techniques. The standard surgical approach for PDHs involves reduction of the entrapped intestinal loops, with resection if necessary in the case of nonviable segments, and repair of the defect by either closure or wide opening of the hernia orifice so the hernia sac becomes a part of the general peritoneal cavity (2, 7). Left PDH can usually be reduced easily. The closure of the hernia orifice with sutures is sufficient. If reduction is difficult, widening of the hernia orifice by an incision along an avascular plane of the descending mesocolon or division of the IMV is performed (2). Excision of the hernia sac is generally not mandatory. Recurrent cases can be repaired with a mesh (3). In this case, because the left PDH was easily reduced, expansion of the hernia sac and IMV scarification were not necessary. Primary closure of the hernia orifice was sufficient.

Conclusion:

Paraduodenal hernia is very rare, and preoperative diagnosis is difficult because there are no specific symptoms or physical examination findings.

References:

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