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Original Research Paper

General Surgery

A RARE CASE OF SMALL BOWEL OBSTRUCTION DUE TO RIGHT PARADUODENAL HERNIA

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ABSTRACT Internal hernia is herniation of small bowel through a peritoneal sac in 4th part of duodenum .Occurs due to abnormalities of primitive mid gut.Accounts for 0.2-5.8% of intestinal obstruction.Due to their incredible infrequency, congenital internal hernias are rarely suspected preoperatively and are fre-quently diagnosed intraoperatively. There are multiple types of congenital intemnal hernias each with unique anatomy and pathogenesis. The most common congenital internal hernias are the paraduodenal, pericecal, foramen of Winslow transmesenteric supravesical Or perivesical and omental types. The term congenital is not synonymous with childhood in this instance because these hernias are often diagnosed later in life. Mortality associated with congenital internal hernias is inevitably due to delayed diagnosis and the septic complica-tions of bowel ischemia. Due to the rarity of each individual type and their varying presentations, mortality rates vary greatly

KEYWORDS : Internal hernia, obstruction, resection

INTRODUCTION

Paraduodenal hernias comprise 50% of all congenital internal hernias. They are more common in men at 3:1ratio and despite their congenital nature,they are most commonly present in 3rd or 4th decade of life.They are either left (5%) or right sided (25%) and distinct in their pathogenesis.

A right paraduodenal hemia is defined as bowel herniation into a potential spac known as the Waldeyer fossa.

This space is typically obliterated as thie SMA and right colon mesentery fuse with the retroperitoneun after passing over the third portion of the duodenum during the third stage of intestinal rotation.

However, in approximately 1%of the population, failure of the prearterial portion of bowel to complete more than 90 degress of rotation leaves it on right side of abdomen to be covered by the postarterial segment (namely the cecum) as it completes its 270 degrees of rotation.

With small bowel interfering,the right colonic mesentery does not fuse to the posterier abdominal wall, perpetuating the space known as the Waldeyer fossa.

Thus the anterior border of this aperture, thc SMA, the hepatic flexure, and the asceading colon may be displaced anteriorly.

The afferent limb of these hernias is typically the first segment of the jejunum, and the efferent limbb can be as distal as the ileum if large herniation occurs

Case Report

42 yr old male presented with complaints of abdominal pain, vomiting, abdominal distension and obstipation for two days. O/E tachycardia was present.

Abdomen diffusely enlarged with diffuse tenderness in right iliac fossa and right lumbar region, BS sluggish PR collapsed rectum.

X ray multiple erect abdomen

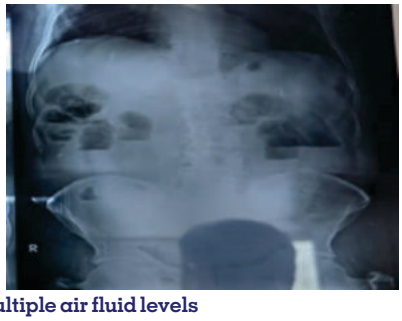

Fig 1: multiple air fluid levels

CT Abdomen and pelvis - small bowel obstruction with transition point in mid ileum .

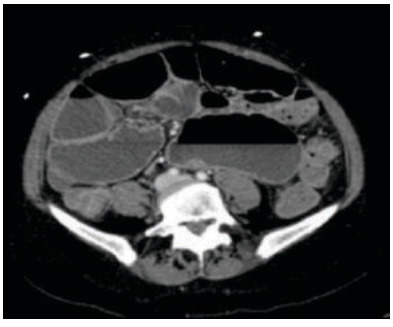

Fig 2: Ct Abdomen And Pelvis

Intra Operative Findings :

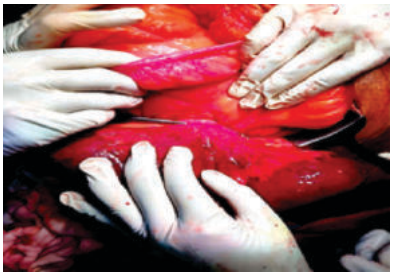

Fig 3: proximal jejunum twisted on itself

Emergency laparotomy was done and there was clumping of small bowels in right side of abdomen .The small bowel loops were found to be gangrenous .The proximal jejunum and some part of ileum was seen entering into a hernia saclocatedposterior to colon .DJ flexure found to be in right side.

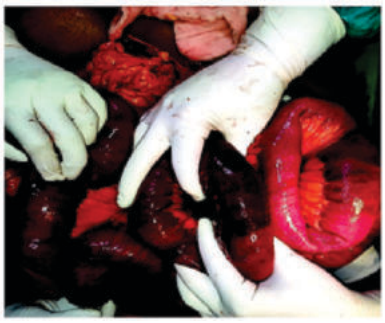

Fig 4: gangrenous small bowel loop

DISCUSSION

Paraduodenal hernias are a rare type of internal hernia and a rare cause of intestinal obstruction accounting for about 0.5% of all hernias. Right paraduodenal hernias are far less common than left.usually located in the third part of duodenum and behind the superior mesenteric artery. symptoms are non specific and may include nausea, vomiting and intermittent cramping.

Definitive diagnosis and treatment of paraduodenal hernias involves exploratory laparotomy to visualise the internal hernia and surrounding sac.In event of bowel injury ,resection and anastamosis is indicated.Avoid injury to superior mesenteric artery .

CONCLUSION

Internal hernias are frequently diagnosed later or incidentally and carries a higher lifetime risk of stragulation and bowel obstruction.Surgical management is necessary once diagnosis is made.

REFERENCES

1. Miller PA, Mezwa DG, Feczko PJ, Jafri ZH, Madrazo BL. Imaging of abdominal hernias. *Radiographics*. 1995;15:333–47. [PubMed] [Google Scholar]
2. Takeyama N, Gokan T, Ohgiya Y, et al. CT of internal hernias. *Radiographics*. 2005;25:997–1015. [PubMed] [Google Scholar]
3. Akyildiz H, Artis T, Sozuer E, et al. Internal hernia: complex diagnostic and therapeutic problem. *Int J Surg*. 2009;7:334–7. [PubMed] [Google Scholar]
4. Caranci F, Napoli M, Cirillo M, Briganti G, Brunese L, Briganti F. Basilar artery hypoplasia. *Neuroradiol J*. 2012;25:739–43. [PubMed] [Google Scholar]
5. Cirillo M, Caranci F, Tortora F, et al. Structural neuroimaging in dementia. *J Alzheimers Dis*. 2012;29:16–19. [Google Scholar]
6. Di Giacomo V, Trinci M, van der Byl G, Catania VD, Calisti A, Miele V. Ultrasound in newborns and children suffering from non-traumatic acute abdominal pain: imaging with clinical and surgical correlation. *J Ultrasound*. 2015;18:385–93. [PMC free article] [PubMed] [Google Scholar]
7. Iacobellis F, Segreto T, Berritto D, et al. A rat model of acute kidney injury through systemic hypoperfusion evaluated by micro-US, color and PW-Doppler. *Radiol Med*. 2018 [PubMed] [Google Scholar]
8. Barile A, Bruno F, Arrigoni F, et al. Emergency and Trauma of the Ankle. *Semi Musc Rad*. 2017;21:282–89. [PubMed] [Google Scholar]
9. Barile A, Bruno F, Mariani S, et al. What can be seen after rotator cuff repair: a brief review of diagnostic imaging findings. *Musculoskelet Surg*. 2017;101:3–14. [PubMed] [Google Scholar]