



## LEFT PARA-DUODENAL HERNIA; INTESTINAL OBSTRUCTION, A CASE REPORT

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**ABSTRACT...** Internal hernia is defined as herniation of viscera through a defect in the mesentery or peritoneum. Internal hernias can cause intestinal obstruction. Paraduodenal hernias though a rare cause of intestinal obstruction, are more common on the left side. These hernias may cause strangulation and gangrene of the intestines so a high index of suspicion is required for diagnosis. Treatment is always surgical. We hereby report a case of acute intestinal obstruction due to left paraduodenal hernia.

**Key words:** Hernia, intestinal obstruction, gangrene

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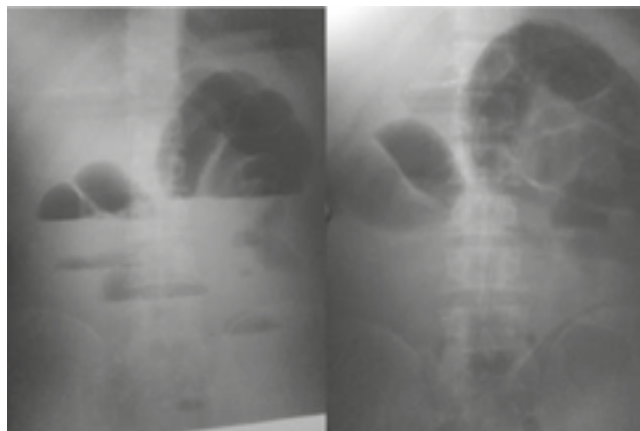
### INTRODUCTION

Internal hernia is defined as the protrusion of a viscus or part of viscus through a normal or abnormal opening in the peritoneum or mesentery.<sup>1</sup> They are one of the rare causes of acute intestinal obstruction and account for less than 1% of the total cases of intestinal obstruction.<sup>2</sup> Para duodenal hernias (PDH) are the most common cause of internal herniation. Left PDH is more common than the right PDH.<sup>3</sup> The presentation varies from recurrent pain abdomen to acute intestinal obstruction leading to gangrene of the involved intestines. Once diagnosed, surgical treatment is indicated. It is a very rare cause of intestinal obstruction and a high index of suspicion is needed to pick up these cases in order to avoid gangrene of the gut. Here we present a similar case.

### CASE REPORT

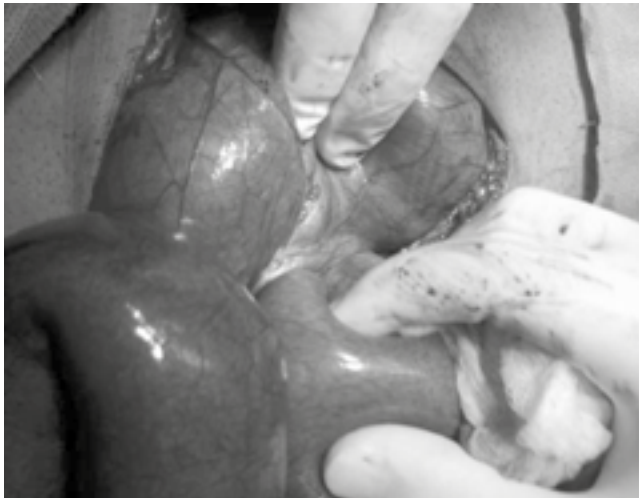
A 22 years old male patient presented to the emergency department with complaints of pain abdomen for three days and abdominal distension, absolute constipation and vomiting for one day. In the past he had eight similar episodes of severe colicky abdominal pain which was relieved with conservative treatment. Examination revealed distended and tense but non-tender abdomen. Plain X-rays abdomen in erect and

supine position showed multiple air fluid levels with dilated small intestine loops coiled up in the left upper abdomen (Fig-1).



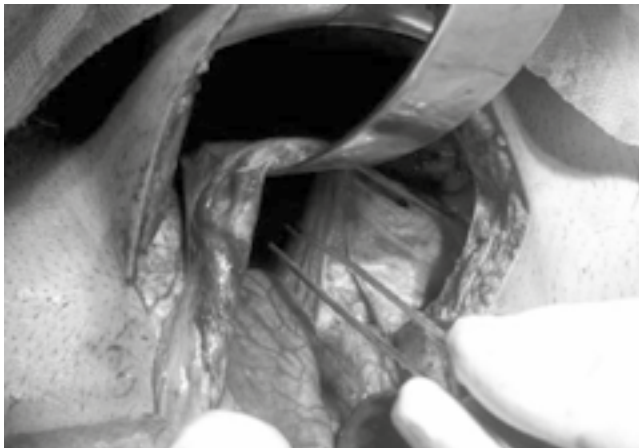
**Fig-1. Plain X-Ray abdomen erect and in supine posture**

CT scan abdomen could not be done because of inavailability. His complete blood counts, serum electrolytes, urea and creatinine were normal. Emergency midline laparotomy revealed coiled up whole small bowel in the left upper abdomen in the fossa of Landzert covered by a thin layer of sac (Fig. 2).



**Fig-2. Coiled loops with in Fossa of Landzert covered by thin layer of mesentery**

The right border or neck of the sac was formed by the inferior mesenteric vein. Intestinal loops were reduced out of the sac starting from terminal ileum towards the proximal gut. All the reduced gut loops were viable. After reduction the fossa of Landzert is shown in Fig. 3.



**Fig-3. Fossa of Landzert**

The sac was closed with interrupted sutures around fourth part of duodenum and pre-caval fascia. Post-operatively he had smooth recovery and was discharged home on the second post-operative day.

## DISCUSSION

Internal hernias are one of the rare cause of intestinal obstruction and are responsible for less than 2% cases of acute intestinal obstruction.<sup>2</sup> PDH are the most common type of internal hernias.

They contribute to 50% of the cases.<sup>1</sup> On the right side paraduodenal herniation occurs in the fossa of Waldayer behind the superior mesenteric artery. On the left side PDH occurs into the fossa of Landzert behind the inferior mesenteric vein and branches of middle colic artery<sup>4</sup>. PDH on the left side is three times more common than on the right side.<sup>5</sup> PDH can present with a variety of non-specific symptoms.<sup>6</sup> It is three times more common in males than females.<sup>7</sup> PDH may be asymptomatic or may cause minor symptoms like chronic pain or vomiting. More than 50% of the cases would present with recurrent pain abdomen.<sup>8</sup> On the other hand it can cause acute intestinal obstruction as it was in our case which may lead to strangulation and gangrene of the involved gut. To avoid these complications a high index of suspicion is required. Plain X-Rays of the abdomen are suggestive of intestinal obstruction with dilated gut loops and air fluid levels.<sup>9</sup> Diagnosis is easily made with CT scan of the abdomen. Treatment is indicated in all cases irrespective of the presentation whether acute or chronic. Treatment includes laparotomy or laparoscopic reduction of the hernial contents as well as closure of the defect primarily or with a mesh.<sup>8</sup> Inferior mesenteric vein can be divided if reduction is not possible.<sup>10</sup> The mortality associated with PDH reported in the literature is 20-50%.<sup>11</sup>

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## REFERENCES

1. Martin LC, Merkel EM, Thompson WM. **Review of internal hernias: radiographic and clinical findings.** AJR Am J Roentol 2006;186:703-17.
2. Brehm V, Smithuis R, Doonebosch PG. **A left paraduodenal hernia causing acute bowel obstruction: A case report.** Acta chir Belg 2006;106:436-7
3. Takeyama N, Gokan T, Ohgiya Y, Satoh S, Hashizuma T, Hatgya K et al. **CT of internal hernias.** Radio Graphics 2005; 25: 997-1015.
4. Berardi RS. **Paraduodenal hernia.** Surg Gynecol Obstet 1981;152:99-110.
5. Kham MA, Lo AY, Vande MDM: **Paraduodenal hernia.** Am surg 1998;64:1218-22.

6. Alkhya W, Aggarwal S, Brchall J, Rowlands TE. **Acute intestinal obstruction secondary to left paraduodenal hernia: a case report and literature review.** World J Emerg Surg 2013; 8:5.
7. Anthony T, **Aunt Minnie's Corner.** J Comp Ant Tomog 1998; 22:844.
8. Erdas E, Pitzalis A, Scano D, Licheri S, Pamata M, Farina G. **Diagnosis and treatment of symptomatic right paraduodenal hernia: report of a case.** Surg Today 2014; 44:192-6.
9. Lin WC, Chen YF, Chiang HJ, Shen WC. **Diagnosis of a large paraduodenal hernia: a case report.** Chin J Radiol 2004;29:197-202.
10. Husain A, Bhat S, Roy AK, Shams V, Dubey SA, Faridi MS. **Internal hernia through para duodenal recess with acute intestinal obstruction: a case report.** Indian J Surg 2011; 74: 354-5.
11. Yun MY, Choi YM, Choi SK, Kim SJ, Ahn SI, Kim KR. **Left paraduodenal hernia presenting with atypical symptoms.** Yonesi Med J 2010; 51: 787-9.



“People might not get all they work for in this world, but they must certainly work for all they get.”

Frederick Douglass



#### AUTHORSHIP AND CONTRIBUTION DECLARATION

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