



## PERI-CAECAI HERNIATION – AN UNUSUAL CASE OF INTESTINAL OBSTRUCTION

### General Surgery

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### ABSTRACT

Peri-caecal herniation is a rare condition that presents as a recurrent pain in abdomen or acute intestinal obstruction. It comprises of 13% of all internal hernias which have the incidence of less than 1% in a case of small bowel obstruction<sup>2</sup>. Rapid diagnosis and effective management holds the key to decreased morbidity and mortality in such cases. The cause of internal herniation is either a normal (recess, foramen) or abnormal (iatrogenic or inflammatory or traumatic) passage in the mesentery or peritoneum.

Here, we report a case of a peri-caecal hernia which presented as acute abdomen mimicking appendicitis/small bowel obstruction.

### KEYWORDS

Peri-caecal hernia, internal hernias, small bowel obstruction

### INTRODUCTION

Internal hernias are uncommon and under-diagnosed cause of small bowel obstruction. Generally defined as protrusion of intra-abdominal viscus through normal or acquired mesenteric aperture. The orifice can be congenital (foramen of Winslow and peritoneal attachments)<sup>1</sup>.

Most common type is paraduodenal (53%). Other types of internal hernia include transmesenteric, pericecal, inter-sigmoid, supra or perivesical, foramen of Winslow, and, rarely, omental hernias<sup>3</sup>. Presenting symptoms included nausea and vomiting, abdominal pain, and obstipation. The objective is to highlight the occurrence of such a rare clinical problem.

### CASE REPORT

This 20 Years old male presented in surgery OPD with complaints of pain in right iliac fossa since 4 days which was acute in onset, gradually progressive and associated with multiple episodes of vomiting. There was no history of fever or any co-morbidities. Patient had suffered organo phosphorus poisoning and associated acute pancreatitis about six months back however there is no history of any abdominal surgery in the past. On examination, he had tachycardia and had tenderness in right iliac fossa with localized guarding. Clinically he had no features of intestinal obstruction. All lab investigations including amylase, lipase and electrolytes were within normal limits. Though initially suspected to have an acute appendicitis, patient developed features of acute small bowel obstruction next morning while in hospital.

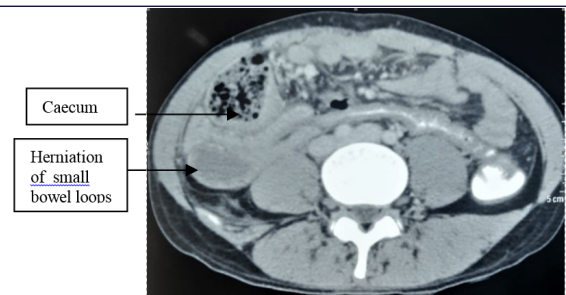
### Image Findings

Serial radiological imaging of abdomen reveal a persistent dilated loop of small bowel in the right iliac fossa, hence a CECT of abdomen was also done. This revealed Caecum and ascending colon to be displaced anteriorly and medially with a few loops of small bowel lying posterior and lateral to Caecum. This was reported as suggestive of a pericaecal hernia.

### Xray Abdomen



**Fig 1: Plain X Ray Abdomen Showing Dilated Loop Of Small Bowel In Right Iliac Fossa**



**Fig.2: Herniated Small Bowel Loops Behind The Caecum.**

### Intraoperative Findings:

As the patient did not show improvement on conservative treatment, he was operated upon the next day. At laparotomy it was found that a loop of distal ileum was obstructed by a tight fold of mesentery near the Caecum. Loop of bowel entering behind this mesenteric sac was getting compressed and obstructed. The tight mesenteric fold acting like a band was carefully released. The bowel loop was found viable. Patient made an uneventful recovery and was discharged after two days.



**Fig 3: Loop of small bowel compressed by the fold of mesentery forming a tight band.**



**Fig.4:- Bowel found viable after releasing the peritoneal fold**

### DISCUSSION

Internal hernias can occur because a post-surgical or congenital defect or aberrant orifice caused by a peritoneal folds as happened in this case. They are not an emergency unless associated with bowel obstruction. They are notorious for being under-diagnosed clinically and posing greater challenge for the operating surgeon. Patients with pericaecal hernias tend to present with symptoms of distal small intestinal obstruction. The presence of localised peritonism in the right iliac fossa usually indicate strangulation, a condition that requires an urgent surgical intervention. In CT examination, pericaecal hernia can be diagnosed with high certainty if there is dilatation of small intestine

loops with transitional zone adjacent to the cecum or oedematous small bowel located lateral to the cecum<sup>4</sup>. Urgent surgical intervention to relieve obstruction and prevent bowel ischaemia is imperative in internal hernias<sup>5</sup>. Pericecal hernias account for 13% of all internal hernias. These hernias develop in one of the four peritoneal fossae (superior ileo-cecal, inferior ileo-cecal, retro-cecal and paracolic sulci)<sup>6</sup>. This type of hernia is commonly associated with a rapid progression to strangulation and the mortality rate can be as high as 75% and the surgical approach for internal hernias includes reduction of the herniated intestinal contents, resection of any acquired peritoneal bands as done in this case and closure of the hernia defect<sup>7</sup>. In our case, reduction of hernia from the defect by releasing the tight peritoneal fold helped the patient, no resection of bowel was required as the bowel was still viable, due to an early intervention.

## CONCLUSION

Peri-caecal hernias are an unusual cause of intestinal obstruction. Because the presentation is ambiguous and variable, it is nearly impossible to make a correct diagnosis through clinical examination alone. Obstruction due to internal herniae, like peri-caecal, as opposed to adhesions, are less likely to resolve with conservative therapy. Early surgical intervention should be undertaken to minimize the morbidity and mortality.

## REFERENCES

1. Nair HS, Watt KA, Anderson DN. Internal hernia and small bowel obstruction following open ileoanal pouch formation: A case report. *International journal of surgery case reports*. 2015 Jan 1;11:68-70.
2. Gupta R, Sharma S, Pandey S. Right Paraduodenal Hernia-A Case Report.
3. Blachar A, Federle MP. Internal hernia: an increasingly common cause of small bowel obstruction. In *Seminars in Ultrasound, CT and MRI* 2002 Apr 1 (Vol. 23, No. 2, pp. 174-183). WB Saunders.
4. Lu HC, Wang J, Tsang YM, Tseng HS, Li YW. Pericecal hernia: a report of two cases and survey of the literature. *Clinical radiology*. 2002 Sep 1;57(9):855-8.
5. Zimmerman LM, Laufman H. Intra-abdominal hernias due to developmental and rotational anomalies. *Annals of surgery*. 1953 Jul;138(1):82.
6. Selcuk D, Kantarci F, Oğüt G, Korman U. Radiological evaluation of internal abdominal hernias. *The Turkish journal of gastroenterology: the official journal of Turkish Society of Gastroenterology*. 2005 Jun;16(2):57-64.
7. Martin LC, Merkle EM, Thompson WM. Review of internal hernias: radiographic and clinical findings. *American Journal of Roentgenology*. 2006 Mar;186(3):703-17.