

## CASE REPORT

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### RETROCECAL HERNIA: A RARE CAUSE OF SMALL BOWEL OBSTRUCTION

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**ABSTRACT:** Internal hernias are rare causes of small bowel obstruction and one such internal hernia is the retrocecal hernia. We report a case of a small bowel obstruction related to a retrocecal hernia in which, the clinical presentation, surgical management included. Preoperative diagnosis was small bowel obstruction only. A laparotomy was performed for definitive diagnosis and treatment. The surgery achieved a good outcome.

**KEYWORDS:** Intestinal obstruction. Retrocecal hernia.

**INTRODUCTION:** Internal hernia (IH) is an infrequent cause of small bowel obstruction (SBO), with a reported autopsy incidence of 0.2 to 0.9%, and is the cause of small-bowel obstruction in 0.6 to 5.8% of the cases.<sup>1</sup> If left untreated, have been reported to have an overall mortality exceeding 50% if strangulation is present.<sup>2</sup> Without a heightened awareness and understanding of these hernias, they can often be misdiagnosed, with subsequent significant morbidity and mortality. The clinical scenario highlights the need for a high index of suspicion in the management of patients with localized peritonitis even in the absence of obstructive symptoms and the presence of normal laboratory markers of inflammation.

**CASE REPORT:** A 48 year old male admitted in male surgical ward in S.G.M. Hospital Rewa with complaint of pain abdomen since 2 days and not passing stool since 2 days. On examination general condition was good, abdomen was distended. There was no visible loop. Hernial sites were normal abdomen was tense but no guarding and rigidity found.

There was no intra or extra abdominal mass. In per rectal examination a mass noted in right side that was pushing rectum wall towards lumen. All laboratory investigations were within normal limit. X-ray abdomen [fig. 1] shows multiple air fluid level on right side of abdomen in small narrow lumen loops. Patient diagnosed as a case of small bowel obstruction.

Exploratory laparotomy was done. On exploration jejunum was distended. About  $\frac{3}{4}$  of ileum was below the cecum in a pouch, which was retrocecal hernia [fig. 2] & [fig. 3], a small cut made in the neck of the sac and enlarged. Herniated part of gut delivered out from sac and obstruction was relieved. Herniated gut was healthy. Hernia sac made free from the base with blunt and sharp dissection up to the neck and excised.

Hernia pouch buried and neck closed with vicryl no-1, gut deflated and abdomen closed in layers. Other intra-abdominal viscera noted normal. Stitch abscess was noted on 3<sup>rd</sup> days which recovered soon. Stitches were removed on 10<sup>th</sup> day and patient was discharged. Patient was followed up in surgery OPD after 2 week and was healthy.

**DISCUSSION:** These hernias are the result of alterations in the normal process of intestinal rotation during embryonic development. The embryological development of the cecum includes budding,

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exteriorization into the umbilicus and subsequent retraction onto the posterior abdominal wall, which usually predisposes the paracecal fossa<sup>3</sup> to the formation of a number of pockets or recesses.<sup>1</sup>

An excellent classification for boundaries of hernias was formulated by Meyer,<sup>4, 5</sup> who described six boundaries: paracecal sulci, cecal fossa, cecal recess, superior ileocecal recess, inferior ileocecal recess, and retrocecal recess. Paracecal sulci are lateral depressions of the peritoneum invested on the cecum, but recesses may be absent. The cecal fossa is a groove that is formed by two peritoneal folds. The lateral fold is a continuation of the white line of Toldt and the medial fold originating from the ileocecal angle, medial aspect of the cecum.

The cecal recess is formed by folds described for the cecal fossa, but in this instance, the cecum is entirely retroperitoneal. Superior and inferior ileocecal recesses are formed by a peritoneal fold originating from the terminal ileum to the cecum. A retrocecal recess is formed by the cecum anteriorly, the iliac fossa posteriorly, the right colic gutter laterally and the mesentery medially.<sup>1</sup>

In the broad category of internal hernias are several main types, as traditionally described by Meyers,<sup>6</sup> and based on location. Specifically, using historical data, these consist of paraduodenal (53%), pericecal(13%), foramen of Winslow(8%), transmesenteric and transmesocolic (8%), intersigmoid (6%), and retroanastomotic(5%). In general, internal hernias have no age or sex predilection and Historically, account for 13% of all internalhernias.<sup>7</sup> In our case, herniation of the 3/4 part of ileum through the cecal fossa was found during the operation.

CT allows advanced diagnosis of intestinal obstruction because it provides more information about the cause than do either X-ray or contrast studies. In addition to demonstrating the presence of extraluminal lesions, such as masses, adenopathy, soft tissue infiltration, fluid collections, abscesses and vascular anomalies,<sup>8</sup> the greatest advantage of CT is the diagnosis of early or partial obstruction, closed loop obstruction and multiple segments of obstruction.

Dilatation of small intestine loops with a transitional zone adjacent to the cecum or an edematous small bowel located lateral to the cecum allows a paracecal hernia to be diagnosed with high certainty.<sup>1</sup>

Almost always the treatment for small bowel obstruction caused by a paracecal hernia is surgical intervention. The laparoscopic technique has been found to be useful for the diagnosis and treatment of bowel obstructions.<sup>1</sup>

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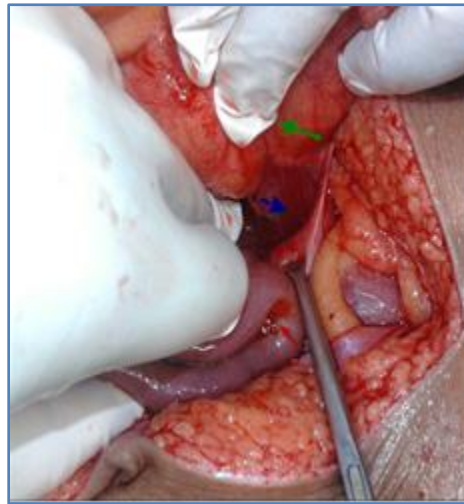


**Fig. 1: X-ray abdomen shows air fluid level right side**



**Fig. 2: Hernial content within sac making Small bowel obstruction**

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**Fig. 3: Red arrow-cecam, blue arrow-sac red arrow-Ilium out of sac**

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