

Retro-Uterine Internal Hernia Causing Intestinal Obstruction Case Report

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ABSTRACT

Introduction: Internal hernias are a rare cause of intestinal obstruction and may present as intermittent subocclusive episodes. Retro-uterine hernias are exceptionally rare in adults. Early diagnosis is essential to prevent intestinal ischemia.

Clinical Observation: We report the case of a 41-year-old female with recurrent subocclusive episodes since childhood, who presented with acute intestinal obstruction characterized by cessation of flatus and stool, abdominal distension, and vomiting. Imaging revealed an abrupt transition zone in the pelvis with dilation of proximal small bowel loops and distal ileal collapse.

Operative Findings: An emergency laparotomy identified a retro-uterine internal hernia containing viable small bowel loops without signs of ischemia. A small hematic peritoneal effusion was present. Adhesiolysis and hernia reduction were performed, along with biopsy of a retro-uterine nodule.

Discussion: Retro-uterine internal hernias are rare but should be considered in cases of recurrent subocclusive episodes. Computed tomography (CT) remains the gold standard to locate and characterize the hernia [4,6]. Cases published by Hari et al. demonstrate the feasibility of laparoscopic treatment [7], while Rabai et al. emphasize the possible anatomical complexity with double hernia orifices and associated pathology (peritoneal xanthogranuloma) [8]. Rare pelvic hernias such as Lindbom's or ureterosciatic hernias constitute important differential diagnoses [9].

Conclusion: Retro-uterine internal hernias are a rare but significant cause of intestinal obstruction. High suspicion, rapid imaging, and early surgical intervention are essential to prevent strangulation and intestinal ischemia.

KEYWORDS: intestinal obstruction, internal hernia, retro-uterine hernia, adhesiolysis, computed tomography

INTRODUCTION

Small bowel obstruction is a common surgical emergency, most often secondary to postoperative adhesions, external hernias, or neoplasms [1]. Internal hernias represent a rare cause, estimated between 0.6% and 5.8% of small bowel obstructions [2]. They correspond to the protrusion of an intestinal segment through a congenital or acquired peritoneal or mesenteric orifice [3].

These hernias can remain silent for years and manifest as intermittent subocclusive episodes, delaying diagnosis until complete obstruction or strangulation occurs [4]. Retro-uterine hernias are particularly rare, with few cases reported in the literature [5].

We present here the case of a 41-year-old female with acute obstruction secondary to a retro-uterine internal hernia, incorporating recent insights on rare pelvic hernias including Douglas pouch hernias, multiple hernias, and Lindbom/ureterosciatic hernias [7–9].

CLINICAL OBSERVATION

Patient: 41-year-old female, unremarkable medical history except for intermittent subocclusive episodes since childhood.

Presentation: Acute abdominal pain, cessation of flatus and stool, vomiting, abdominal distension.

Clinical examination:

- Abdomen: distended, tympanic, no palpable mass
- Bowel sounds: decreased
- Vital signs: stable

IMAGING

Abdominal radiograph: multiple air-fluid levels compatible with small bowel obstruction.

Contrast-enhanced abdominal CT scan:

- Abrupt transition zone in the pelvis
- Dilated proximal small bowel loops (max diameter 32 mm) with air-fluid levels

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- Collapsed distal ileal loops
- Alternating dilated and collapsed segments (“small bowel feces sign”)
- Sac-like clustering of small bowel loops retro-uterine, suggesting a localized internal hernia (Figure 1)

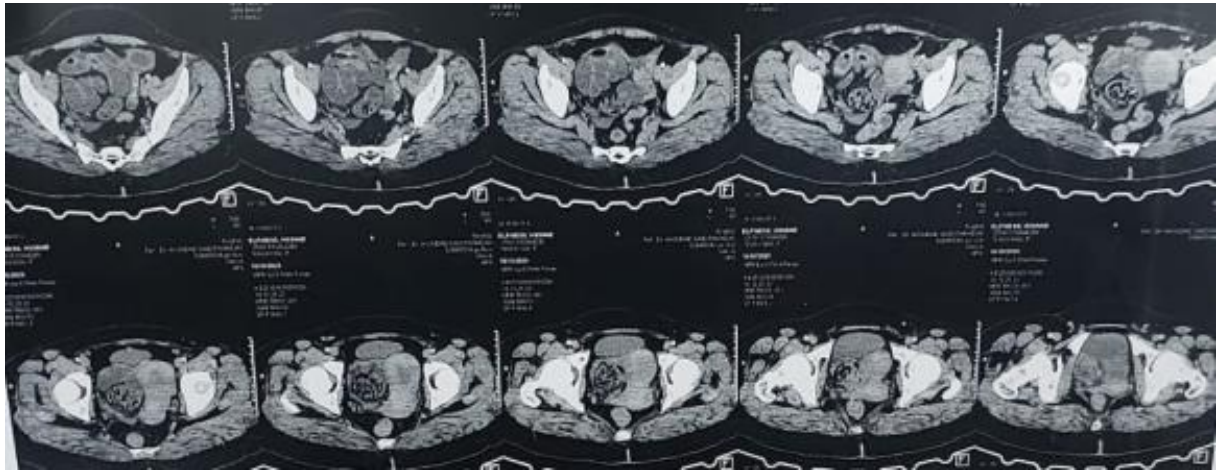


Figure 1: Axial CT scan showing pelvic transition zone and dilated small bowel loops
CT precisely localized the site of incarceration, as described in Douglas pouch hernia reports [7] and rare pelvic hernia publications [8,9].

OPERATIVE FINDINGS

Procedure: Emergency laparotomy.

Findings:

- Small volume hematic peritoneal effusion
- Small bowel loops incarcerated in a retro-uterine sac forming a recess posterior to the right parametrium (Figure 2)
- Viable loops without ischemic signs
- Adhesions between loops and retro-uterine space
- Firm uterus adherent to anterior abdominal wall
- Biopsy of a retro-uterine nodule

Surgical management :

- Reduction of the internal hernia
- Adhesiolysis of entrapped loops
- Closure of the hernia sac
- Peritoneal lavage

Postoperative course :

- Uneventful
- Return of bowel function on postoperative day 3
- Discharged on day 7

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Figure 2: Operative view of retro-uterine hernia sac containing small bowel loops

DISCUSSION

Epidemiology and Clinical Presentation

Internal hernias account for less than 6% of intestinal obstructions [2]. Retro-uterine hernias are even rarer, often related to congenital defects, postsurgical adhesions, or chronic inflammatory processes [5]. Patients frequently report recurrent subocclusive episodes often misattributed to functional disorders [4].

Our patient's history of subocclusive episodes since childhood illustrates the chronic and insidious nature of these hernias.

Pathophysiology:

Retro-uterine hernias occur when small bowel loops slip through a peritoneal defect behind the uterus. Pelvic adhesions and bowel mobility may favor incarceration. Rare pelvic hernias like Lindbom's or ureterosciatic share this mechanism [9].

Rabai et al. report multiple hernia orifices coexisting, complicating surgery and increasing recurrence risk [8].

Diagnosis and Imaging:

Contrast-enhanced CT is the examination of choice, showing:

- Abrupt transition zone
- Proximal dilatation with air-fluid levels
- Distal collapse
- Sac-like clustering of small bowel loops [6]

Hari et al. confirm CT enables safe laparoscopic planning, even for complex pelvic hernias [7]. Differential diagnoses include rare pelvic hernias (Douglas pouch, Lindbom/ureterosciatic) and classical causes of obstruction [8,9].

Surgical Management:

Early intervention is crucial to prevent ischemia and necrosis. Principles include:

- Reduction of incarcerated loops
- Adhesiolysis and peritoneal release
- Closure of hernia defect when possible
- Assessment of bowel viability and resection if needed [3,5]

Laparoscopy offers excellent visualization, rapid recovery, and fewer complications [7]. Laparotomy remains necessary when diagnosis is uncertain or ischemia suspected. In our case, complex adhesions and retro-uterine nodule justified open surgery.

Complications and Prognosis:

Major complications include strangulation, ischemia, and necrosis. Early surgery improves prognosis. Published cases show early laparoscopic surgery enables quick and complication-free recovery [7]. Recurrence is rare but possible if multiple defects are missed [8].

CONCLUSION

Retro-uterine internal hernias are rare but important causes of intestinal obstruction, especially in patients with chronic subocclusive episodes. High suspicion, rapid imaging, and early surgery are essential to prevent strangulation and ischemia. Integrating insights on rare pelvic hernias optimizes surgical management and postoperative outcomes.

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