



Retrocecal Hernia Causing Small Bowel Obstruction: A Case Report

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Abstract

Background: Retrocecal hernia is an exceptionally rare cause of small bowel obstruction, representing less than 1% of all cases. Due to its atypical location and the fact that it often occurs in patients with no history of abdominal surgery, it presents significant diagnostic challenges. Delayed diagnosis can lead to severe complications, including bowel strangulation, ischemia, and perforation. We present this case to highlight the critical role of diagnostic imaging and laparoscopic management in treating this uncommon condition.

Case Report: A 56-year-old male with no significant past medical history presented to the emergency department with a 48-hour history of nausea, vomiting, and crampy abdominal pain localized to the right lower quadrant. Physical examination revealed right lower quadrant tenderness. Initial abdominal X-rays indicated a small bowel obstruction. Subsequently, a contrast-enhanced Computed Tomography (CT) scan revealed multiple dilated small bowels loops incarcerated posterior to the cecum, confirming a retrocecal hernia. The patient underwent urgent diagnostic laparoscopy. Intraoperatively, a congested segment of the small intestine was found herniating through a mesenteric defect in the retrocecal recess. The hernia was successfully reduced, the bowel quickly regained viability, and the defect was closed primarily with non-absorbable sutures. The patient was discharged on postoperative day 3.

Conclusion: Retrocecal hernia must be considered in the differential diagnosis of mechanical small bowel obstruction, particularly in patients presenting with a virgin abdomen. Prompt identification using contrast-enhanced CT and timely intervention utilizing a minimally invasive laparoscopic approach are essential to prevent irreversible complications and ensure excellent outcomes.

Keywords: Retrocecal Hernia, Small Bowel Obstruction, Internal Hernia

Introduction

Internal hernias, including retrocecal hernias, are rare causes of small bowel obstruction, representing less than 1% of all cases [1]. Retrocecal hernias occur when the small intestine herniates behind the cecum. They often go undiagnosed due to their atypical presentation and can lead to bowel strangulation, ischemia, and perforation if not detected early.

The diagnosis of retrocecal hernias is particularly challenging because the clinical presentation often involves an unoperated

abdomen—making common causes like adhesive disease less likely—and can closely mimic the signs of acute mesocolic appendicitis. Because of these challenges, contrast-enhanced CT is essential for early diagnosis, providing clear visualization of the hernia and its impact on surrounding structures [2]. What makes this case unique is the successful utilization of a minimally invasive laparoscopic approach to both diagnose and treat a potentially life-threatening strangulation in a virgin abdomen. The importance of early recognition and surgical intervention is critical to avoid

complications. This work has been reported in line with the SCARE criteria [3].

Case Report

A 56-year-old male with no significant past medical history presented to the emergency department with a 48-hour history of crampy abdominal pain, nausea, and vomiting. The pain was localized to the right lower quadrant. On examination, the patient was moderately distressed. Vital signs and baseline laboratory tests were largely unremarkable, aside from a mildly elevated white blood cell count of 12,000/ μ L. Physical examination revealed

tenderness in the right lower quadrant without rebound tenderness or guarding.

Initial abdominal X-rays showed dilated small bowel loops with air-fluid levels. Given the clinical suspicion of a mechanical obstruction in a patient with no prior abdominal surgery, a contrast-enhanced abdominal CT scan was performed to identify the etiology. The scan revealed an incarceration of multiple dilated small bowel loops displaced posteriorly to the cecum, confirming the presence of a retrocecal hernia. Radiologically, there was no bowel wall enhancement defect or mesenteric fat stranding to suggest established ischemia (Figure 1).

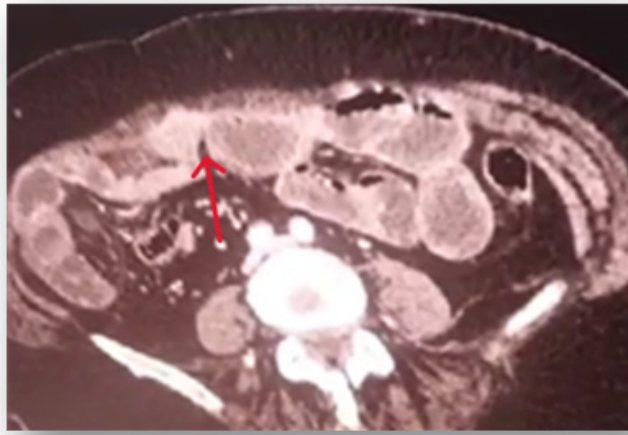


Figure 1: Contrast-enhanced abdominal CT (axial view). The red arrow indicates dilated small bowel loops incarcerated posteriorly to the cecum, characteristic of a retrocecal hernia.

The patient was urgently admitted, resuscitated with intravenous saline, and prepared for surgery. Because of the patient's stable hemodynamic and the need for both definitive diagnosis and treatment, a diagnostic laparoscopy was chosen.

Intraoperatively, the cecum was mobilized, revealing a congested segment of the small intestine herniating through a mesenteric defect in the retrocecal recess (Figure 2).

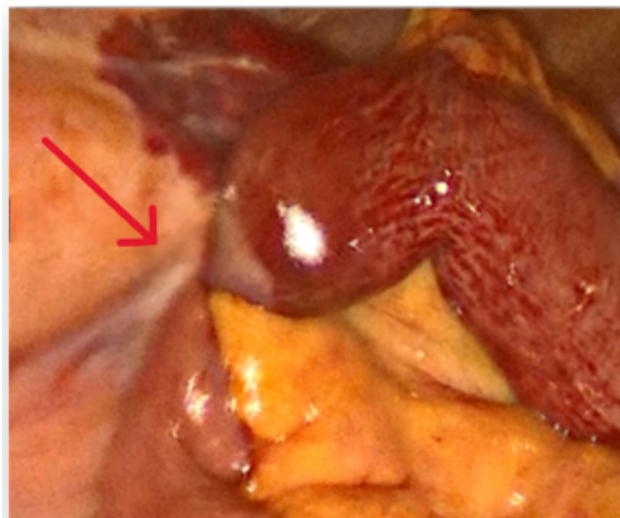


Figure 2: Small bowel incarcerated in the retrocecal recess. The red arrow indicates the defect.

A distal ischemic loop was noted upon initial inspection; however, after the hernia was carefully reduced, the bowel quickly regained normal perfusion and viability, avoiding the need for

resection. The defect was closed primarily with non-absorbable sutures to prevent recurrence (Figure 3).

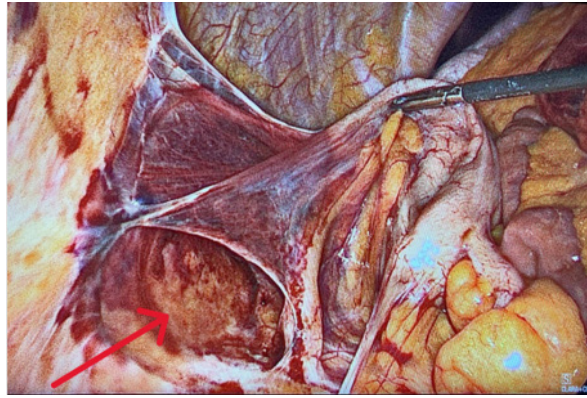


Figure 3: Retrocecal recess after reducing the hernia.

Postoperative care included early ambulation and gradual diet advancement. The recovery was uneventful, and the patient was discharged on postoperative day 3.

Discussion

Internal hernias are defined as the protrusion of abdominal

viscera through a peritoneal or mesenteric defect into a compartment within the peritoneal cavity. They account for up to 5% of all small bowel obstructions [2]. Pericecal hernias are classified into four types: superior ileocecal, inferior ileocecal, paracolic, and retrocecal (the largest) (Figure 4) [4].

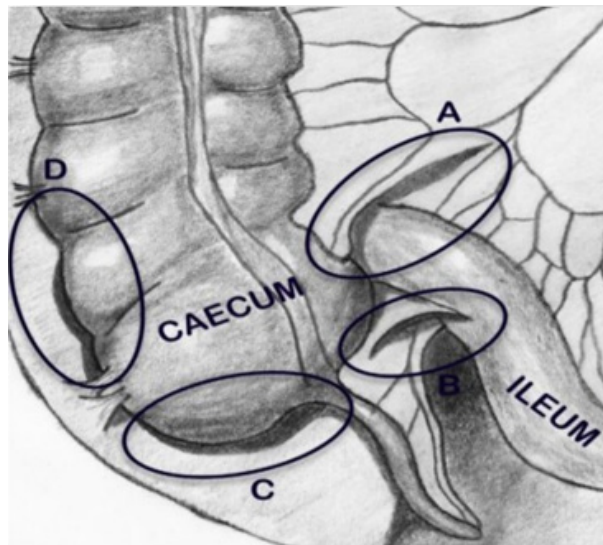


Figure 4: A diagram showing the locations of the four types of pericecal hernias: the superior ileocaecal recess (A), inferior ileocaecal recess (B), retrocaecal recess (C) and paracaecal sulcus (D).

We consistently identified our patient's lesion as a retrocecal hernia. Clinically, patients present with nonspecific symptoms like right lower quadrant pain, which can lead to diagnostic delays and a heightened risk of bowel ischemia. Because herniated loops can be temporarily reducible, symptoms may fluctuate [5]. Contrast-enhanced CT is the gold standard for timely diagnosis in these

virgin abdomens, showing dilated loops posteriorly displaced to the cecum [6]. However, CT imaging has limitations; it may lack specificity in early stages or miss smaller, intermittently reducing hernias if not carefully reviewed. Managing uncommon internal hernias with diagnostic delays is a recognized challenge, particularly in resource-limited settings where surgical intervention might be

delayed, further emphasizing the need for high clinical suspicion. When imaging suggests a closed-loop obstruction, early surgical intervention is crucial [7].

While laparotomy is the traditional approach, laparoscopy is increasingly favoured. It is safe, feasible, and allows for controlled reduction, thorough exploration, and primary defect closure [8]. In our case, laparoscopy successfully facilitated the reduction of an incarcerated, congested loop that subsequently regained viability, underscoring the technique's efficacy and patient comfort [9,10].

Conclusions

Retrocecal hernias are a rare but significant cause of small bowel obstruction that can be easily overlooked due to their atypical presentation in patients without a history of abdominal surgery. Early diagnosis via contrast-enhanced CT is crucial for timely intervention. A laparoscopic approach is highly effective for reducing the herniated bowel and closing the defect. Maintaining a high index of suspicion and utilizing prompt, minimally invasive surgery is paramount to preventing irreversible bowel ischemia and ensuring excellent patient outcomes.

Patient Consent

Written consent of the patient was obtained.

Declaration of Figures' Authenticity

All figures submitted have been created by the authors who confirm that the images are original with no duplication and have not been previously published in whole or in part.

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None.

Conflict of Interest

None.

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