

Obturator Hernia Presenting as Sciatica-Like Leg Pain Leading to Small Bowel Strangulation in an Elderly Female

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Abstract

Obturator hernias are a rare and often overlooked cause of small bowel obstruction (SBO), typically presenting with nonspecific symptoms such as nausea, vomiting, and abdominal pain. We present the case of a frail 83-year-old female who was recently hospitalized 10 days prior for intractable, sciatica-like leg pain. She later developed abdominal pain, prompting further evaluation. Computed tomography (CT) imaging revealed a small bowel obstruction with a transition point caused by a suspected obturator hernia containing strangulated small bowel. The patient underwent emergent surgical exploration, which confirmed the diagnosis. A hernia reduction, resection of ischemic jejunum, and primary anastomosis were performed. Her postoperative course was uneventful. This case emphasizes the need for high clinical suspicion for obturator hernia in elderly women with unexplained neuropathic leg pain and small bowel obstruction.

Categories: General Surgery, Gastroenterology

Keywords: hernia reduction, obstructed obturator hernia, octogenarian, sciatica pain, small bowel strangulation

Introduction

Obturator hernias are an uncommon type of abdominal wall hernia, accounting for less than 0.04% of cases [1]. In contrast, inguinal, femoral, and umbilical hernias represent the majority, comprising approximately 75%, 6%, and 10%, respectively [2,3]. A hernia is broadly defined as the protrusion of an organ or tissue through a defect in the surrounding muscle or connective tissue [4]. Despite their rarity, obturator hernias carry a disproportionately high mortality rate due to diagnostic delays, underscoring the importance of early recognition and intervention [3].

The most common presenting symptom is small bowel obstruction (SBO), and the diagnosis is often made during surgical exploration [3]. Less commonly, patients may present with specific signs such as medial thigh pain due to obturator nerve compression, known as the Howship-Romberg sign, present in 15-20% of patients [5]. These symptoms of neuropathic leg pain can precede symptoms of SBO by days, which can make the diagnosis challenging and even lead to a misdiagnosis. Obturator hernias are most frequently seen in elderly, thin, multiparous women and classically known as the "little old lady hernia", particularly those over 80 years old, due to the wider female pelvis and the larger, more triangular obturator canal [1,6]. Early diagnosis is essential to prevent bowel ischemia and reduce morbidity and mortality related to it.

Computed tomography is the imaging of choice for this diagnosis, given its level of accuracy and specificity for identifying obturator hernias. The classic "bird's beak" change may be present where the loop of bowel protrudes through the obturator internus muscle.

This case highlights a rare and atypical presentation of an obturator hernia in an 83-year-old female, whose symptoms initially manifested as persistent, sciatica-like leg pain for approximately 10 days prior to diagnosis.

Case Presentation

A frail 116-pound, 83-year-old female presented with nausea and vomiting 10 days after hospitalization for intractable right-sided lumbar and sciatic-like pain. Her pain was described as constant, burning, and radiating from the right groin to the medial thigh, worsened with standing and relieved slightly with hip flexion. Neurologic exam revealed mild medial thigh tenderness without motor weakness. Her last reported bowel movement was two days prior. A lumbar spine MRI was obtained and showed minor stenosis but no evidence suggesting surgical intervention. The patient showed improvement in pain levels with morphine and Toradol after initial presentation. Ten days after initial admission, the patient reported significant nausea and one episode of emesis as well as worsening back pain and had some abnormal vitals (Table 1), prompting an abdominal X-ray, which showed dilated and stacked loops of small bowel concerning for

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obstruction, and labs showing elevated WBC (Table 1) and tachycardia. Physical exam was positive for abdominal tenderness. Abdominal X-ray and computed tomography (CT) scan revealed diffuse fluid distention of the stomach and proximal small bowel compatible with mid to distal SBO and concerning for an obturator hernia (Figures 1, 2).

Labs/Vitals	
Temp	98.1 F
WBC	21.3 H
HR	109 H
BP	107/69

TABLE 1: Labs and Vitals when presenting with SBO

SBO: Small bowel obstruction

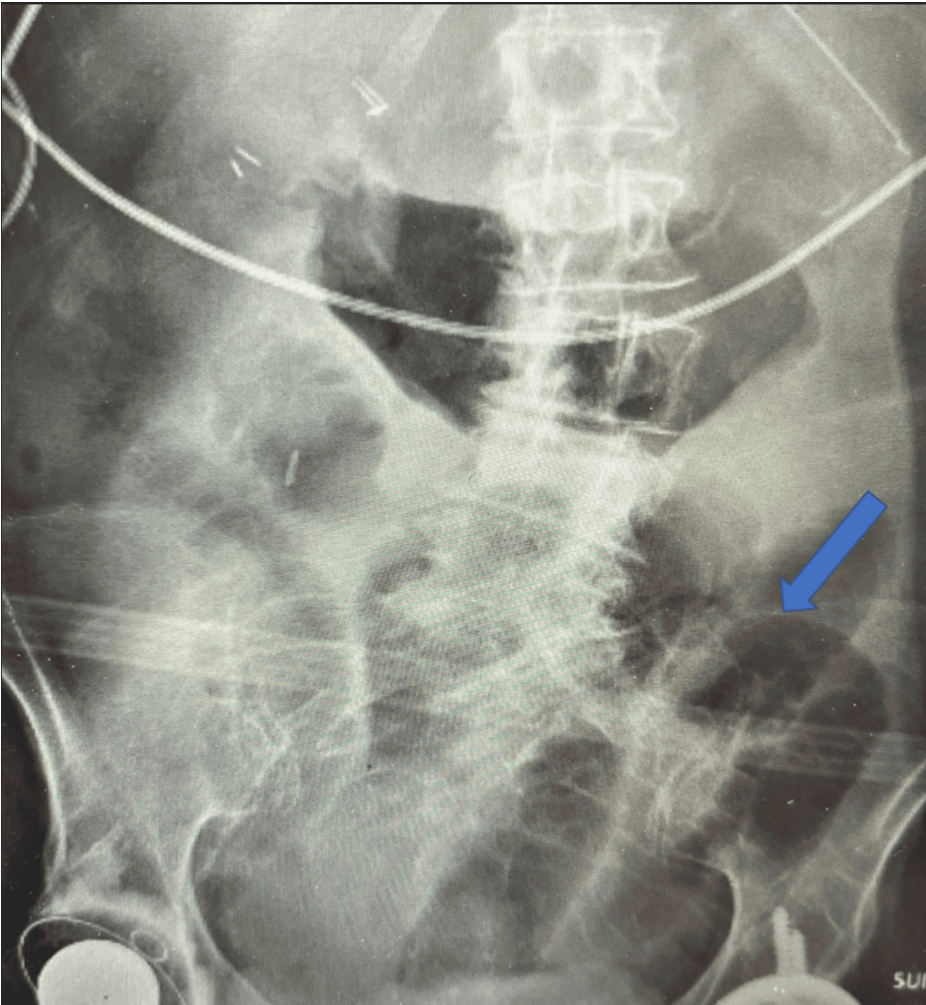


FIGURE 1: Abdominal X-ray demonstrating gastric and small bowel dilation concerning for distal small bowel obstruction

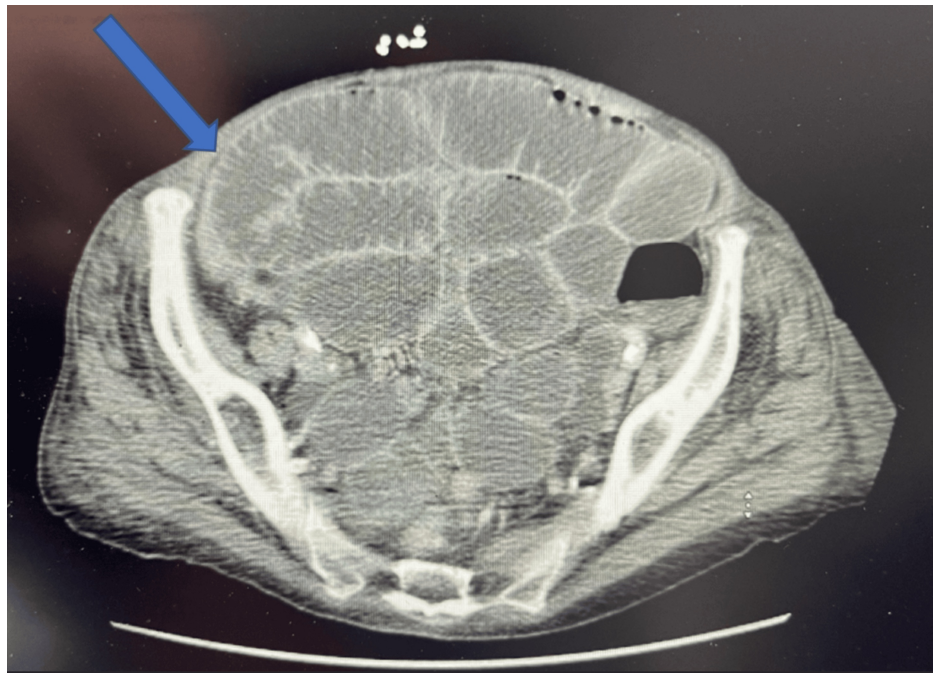


FIGURE 2: Axial CT scan of the abdomen and pelvis demonstrating diffuse fluid-filled dilated loops of proximal small bowel, consistent with distal small bowel obstruction

The next day, an exploratory laparotomy was performed, which identified the obturator hernia containing a strangulated knuckle of small bowel (Figure 3).

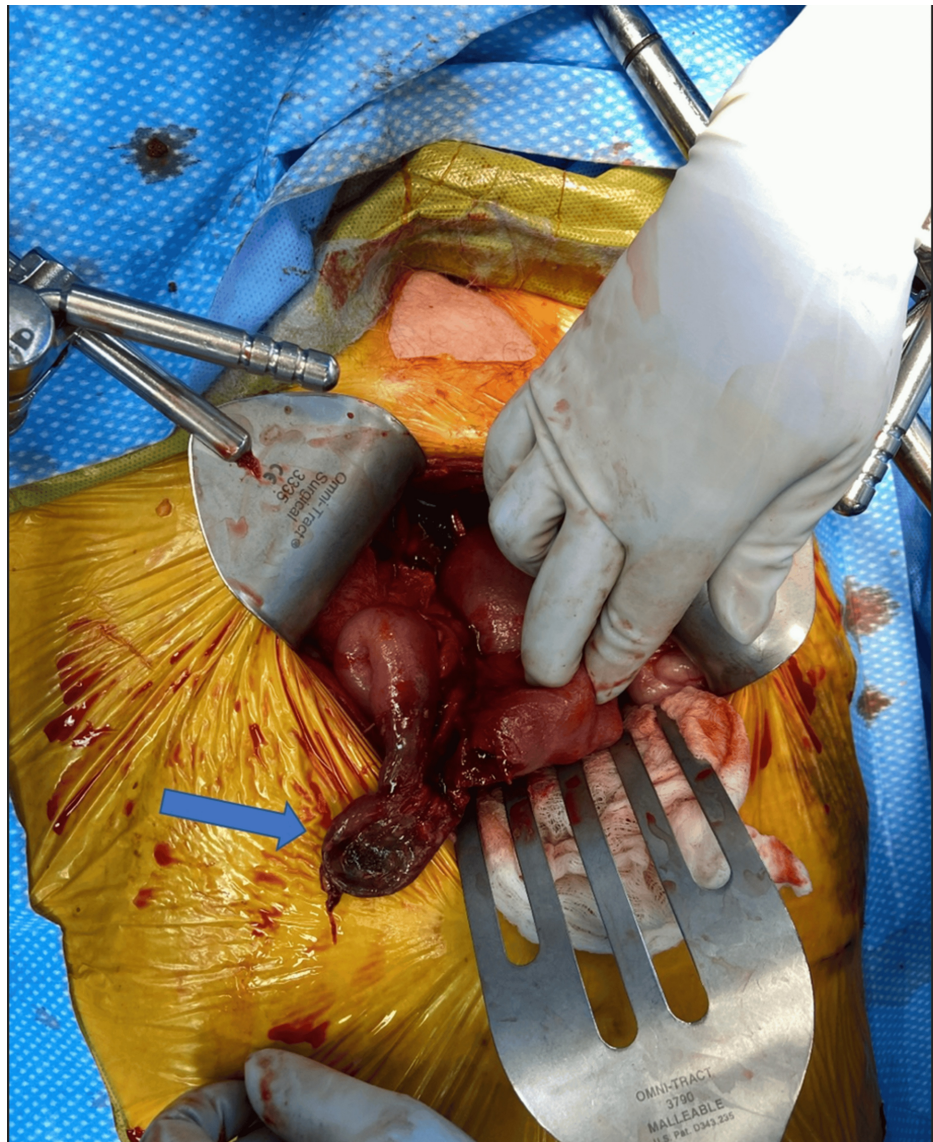


FIGURE 3: Intraoperative view of strangulated loop of small bowel incarcerated within the obturator hernia sac, resulting in mechanical small bowel obstruction

Intraoperative examination revealed a segment of small bowel with evidence of incarceration and ischemia, appearing dusky, necessitating resection of the non-viable portion. A transition point was noted at the right obturator foramen. A primary anastomosis using 3.0 silk stay sutures was then performed to restore intestinal continuity and two enterotomies were made on the anti-mesenteric border of the small bowel and a 75 mm GIA stapler was used to create a common channel and three Allis clamps were then used to seal the remaining anastomosis. Primary closure of the obturator canal was performed during laparotomy following hernia reduction and bowel resection. No mesh was used.

The patient tolerated the procedure well and was transferred to the intensive care unit for close postoperative monitoring, given her advanced age and frailty. She was discharged home following the return of bowel function and remained well at her one-month outpatient follow-up.

Discussion

Obturator hernias are among the rarest types of hernias, accounting for less than 0.04% of all hernias [1]. They are nine times more common in females, likely due to anatomical differences such as a wider pelvis, increased transverse diameter, and a more triangular-shaped obturator canal [3].

These hernias occur when abdominal contents, most commonly small bowel, protrude through the obturator canal, which traverses the obturator foramen and is covered by the thin obturator membrane. Less

commonly, structures such as Meckel's diverticulum, omentum, ovary, fallopian tube, or appendix may be involved [7]. Owing to the proximity of the obturator nerve, patients often present with medial thigh pain exacerbated by hip extension, adduction, or medial rotation and relieved by hip flexion, a pattern known as the Howship-Romberg sign [7]. Another clinical finding is the Hannington-Kiff sign, marked by the absence of the thigh adductor reflex. While various imaging modalities may aid in diagnosis, CT imaging of the abdomen and pelvis is considered the gold standard, with reported sensitivity between 78-100% for identifying obturator hernias [8].

Prompt surgical repair is essential to reduce morbidity and mortality. Open repair typically involves a lower midline laparotomy, reduction of hernia contents, and inspection for bowel viability. If necrosis is present, small bowel resection and anastomosis may be required, followed by closure of the hernia defect via primary repair or mesh placement. Intestinal resection is necessary in approximately 25-50% of cases [9]. Laparoscopic and robotic approaches may also be used, depending on surgeon experience and patient stability.

Sciatic hernia is a rare differential diagnosis, with fewer than 100 cases reported worldwide [10]. Symptoms may include nonspecific pelvic pain, SBO, or swelling in the posterior gluteal region. Rather et al. describe an 80-year-old, thin, multiparous woman who presented with abdominal pain, constipation, and vomiting [11]. Based on her demographic risk profile, an obturator hernia was initially suspected [12]; however, exploratory laparotomy revealed a loop of small bowel herniating through the greater sciatic foramen above the piriformis muscle [1].

Although sciatic hernias may mimic obturator hernias, our case is, to our knowledge, the first to present primarily with persistent, radiating sciatica-like leg pain in the absence of initial abdominal symptoms. This atypical presentation likely contributed to delayed diagnosis and highlights the importance of maintaining a broad differential when evaluating elderly patients with unexplained neuropathic leg pain. Given the risk of bowel ischemia and strangulation, clinical vigilance and timely imaging are essential for improving outcomes in these rare but high-stakes surgical emergencies.

Conclusions

Obturator hernia, though rare, should remain a key differential diagnosis in elderly, lean, multiparous women presenting with chronic medial thigh or nonspecific lower abdominal pain, particularly when symptoms suggest small bowel obstruction. Patients with leg pain, especially with the presence of risk factors for hernias, should have obturator hernia maintained on the differential. Due to its deep anatomical location and subtle clinical signs, diagnosis is often delayed, increasing the risk of bowel ischemia and poor outcomes. Maintaining a high index of suspicion and utilizing CT imaging can be extremely helpful for timely recognition. Obtaining a CT of the abdomen and pelvis in patients with hernia risk factors, positive Howship-Romberg sign, or neuropathic leg pain early on can help obtain timely diagnosis in this rare presentation. Prompt surgical intervention is critical to minimize complications and improve survival in this often-overlooked surgical emergency. Limitations of this study include it being a stand-alone case with inability to establish causation and the inability to reproduce this presentation for further study. Further research is needed to establish diagnostic algorithms for atypical presentations of obturator hernia.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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