

A Rare Case of Bilateral Obturator Hernias

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Background	A 70-year-old male presented with intermittent abdominal pain secondary to a left obturator hernia seen on imaging and an additional right obturator hernia seen intraoperatively.
Summary	Our patient is a 70-year-old man presenting with one month of intermittent abdominal pain and distention. He was brought to the operating room for diagnostic laparoscopy and total extraperitoneal hernia repair of bilateral obturator hernias. The patient tolerated the procedure well and was discharged that afternoon.
Conclusion	Obturator hernias are a rare finding that can lead to strangulation and bowel ischemia if undiagnosed and untreated. Although rare, they can be repaired using familiar laparoscopic techniques that allow for assessment of bilateral obturator foramina and swifter postoperative recovery for patients.
Key Words	obturator hernia; small bowel obstruction; total extraperitoneal repair

DISCLOSURE STATEMENT:

The authors have no conflicts of interest to disclose.

RECEIVED: August 20, 2020

REVISION RECEIVED: October 1, 2020

ACCEPTED FOR PUBLICATION: November 1, 2020

FUNDING/SUPPORT:

The authors have no relevant financial relationships or in-kind support to disclose.

To Cite: Nielsen DJ, Holkup LM, Seiler J, Kroetsch CJ. A Rare Case of Bilateral Obturator Hernias. *ACS Case Reviews in Surgery*. 2021;3(5):58-61.

Case Description

Obturator hernias are an infrequently encountered cause of small bowel obstruction, accounting for less than one percent of all cases of hernias.¹ We report here the diagnosis and surgical correction of bilateral obturator hernias after the presentation of a patient with intermittent abdominal complaints.

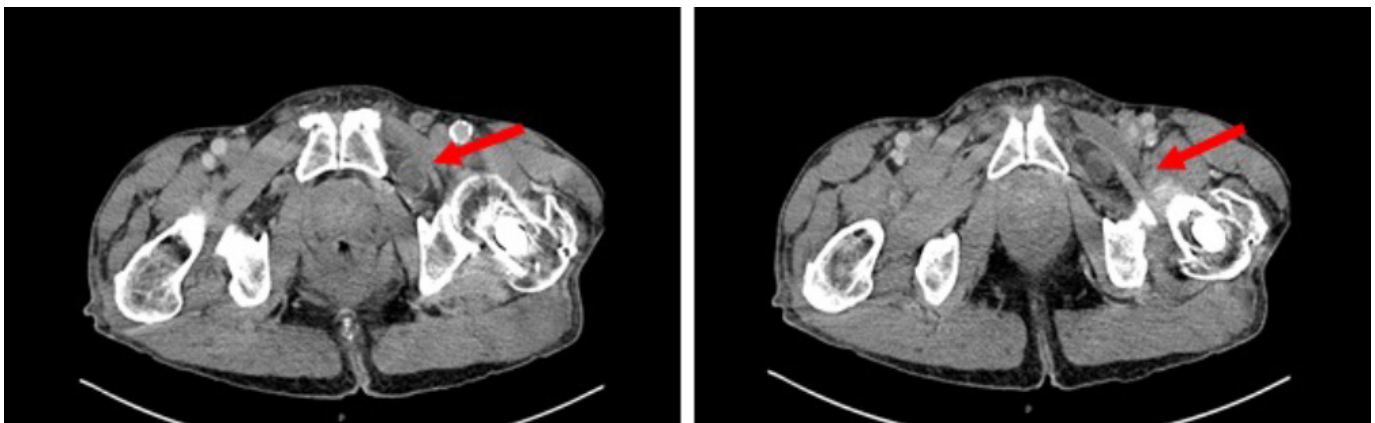
Our patient is a 70-year-old man with past medical history only notable for prior left inguinal hernia repair in 2004. He was in his usual state of good health when he began to note intermittent episodes of pain and discomfort in his left lower quadrant. He initially attributed these symptoms to arthritis in his hip. These episodes became more frequent and more severe over the course of a month and began to be accompanied by bloating. He eventually presented for evaluation at the Fargo Veterans Association Medical Center emergency department when the pain acutely worsened the morning of presentation. He reported intermittent diarrhea that reportedly relieved some pain. He denied fever, chills, nausea, or vomiting. His abdomen was soft, mildly distended, with mild-to-moderate pain localizing to the left lower quadrant and hip without guarding or rebound tenderness. There was no hernia palpable at the initial examination.

A computed tomography (CT) scan of his abdomen and pelvis was obtained in the emergency department, which demonstrated multiple mildly distended fluid-filled loops of small bowel seen extending within the pelvis. Notably, a protruding loop of small bowel was seen at the level of the obturator canal on the left (Figure 1), which was a novel finding compared to prior imaging.

He was admitted to the hospital for further evaluation. Shortly into his hospital course, he reported resolution of his abdominal pain and distention. He had a return of bowel function as evidenced by regular flatus and bowel movements and was discharged with instructions to present early the following week for diagnostic laparoscopy and hernia repair.

The decision was made to begin with a diagnostic laparoscopy to determine whether a large volume of hernia contents would need to be reduced and assess for any small bowel injury. The peritoneal cavity was entered without complication using the Veress needle technique. The entirety of the abdomen was inspected, noting a significant amount of dilated and edematous bowel. Significant fluid was noted in the pelvic cavity, but all bowel appeared healthy and viable without signs of strangulation or incarceration. All trocars were then removed, and attention was brought back to the umbilicus to prepare for total extra-peritoneal hernia repair.

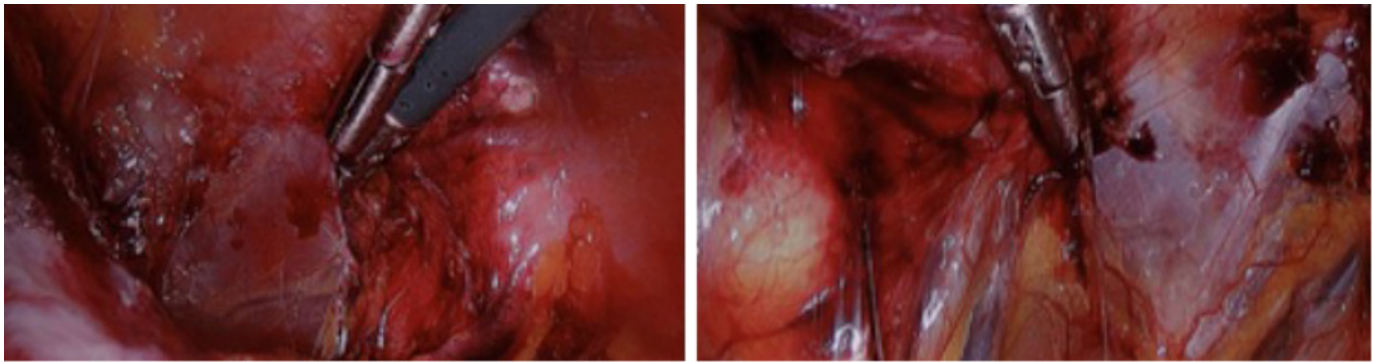
Figure 1. Preoperative CT Abdomen Pelvis; Obturator Hernia on Left Side (arrow). Published with Permission



Bilateral fat-containing obturator hernias were noted upon assessing the pelvic cavity (Figure 2). These were easily reduced into the preperitoneal space without signs of bleeding or ischemic tissue. The space was assessed for inguinal or femoral hernias, and none were appreciated. Precut mesh was introduced and placed overlying the obturator, femoral and inguinal spaces and subsequently tacked into place, avoiding critical structures. This was completed on both left and right sides. The cord structures and vessels were intact and undisturbed and the trocars were removed. The incisions were closed in the standard fashion. No adverse events occurred intraoperatively, and the operation concluded without complication.

Due to their rarity, obturator hernias can present a diagnostic challenge unless a high index of suspicion is maintained. Our patient presented with nonspecific symptoms that were originally attributed to hip disease, which can be a classic presenting finding per review of the literature.^{6,7} It is possible that our patient noted discomfort at the early ‘fat plug’⁴ stages of obturator hernia, avoiding the invagination of the intestine that frequently leads to strangulation and incarceration.⁵ Early diagnosis is a rare phenomenon, contributing to the relatively high mortality rate seen with this type of abdominal wall hernias.⁸

Figure 2. Intraoperative Photograph, Peritoneum and Fat Tracking into Bilateral Obturator Foramina. Published with Permission



Discussion

Obturator hernias are an infrequently described, with incidence estimates below 1 percent of all hernias.¹ They can be a dangerous cause of bowel obstruction, often undiagnosed until intestinal ischemia and gangrene have occurred.¹⁻³ The classic teaching is that these hernias are found in thin, frequently multiparous, and older women, manifesting as intestinal obstruction.⁴ They start as an invagination of the preperitoneal fat that is the precursor to a true hernia that may contain bowel, leading to the classic symptoms of discomfort and obstruction.⁴ Surgery is the gold standard in the definitive management of obturator hernia,⁵ although the best approach has not been settled. If a diagnosis is made early, significant mortality and morbidity can be avoided and allow for minimally invasive methods to resolve the hernia.

The decision was made to allow the patient to present for elective hernia repair as his obstructive symptoms resolved while in observation. The bowel was viable at diagnostic laparoscopy, so minimally invasive repair with mesh placement was reasonable. We pursued an extraperitoneal repair for this case due to our familiarity with the approach and the ability to repair both inguinal and obturator spaces without further entry into the peritoneum.

Conclusion

A high index of suspicion must be maintained to diagnose obturator hernias, but the increase in the use of CT in emergency departments has aided their discovery. If the bowel is healthy and viable at the time of operation, it is appropriate to pursue laparoscopic repair for these patients due to the decreased recovery time and ability to assess other possible hernia sites bilaterally.

Lessons Learned

Although obturator hernias are a rare cause of intestinal obstruction, keeping a high index of suspicion on evaluation can allow for early diagnosis and minimally invasive repair.

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