

Case Report

Little old lady's hernia: a case of strangulated obturator hernia in a 88-year-old woman

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ABSTRACT

Obturator hernia is an extremely rare type of hernia and an uncommon cause of intestinal obstruction. Diagnosing it represents a challenge due to the lack of specific signs and symptoms. The delay in establishing the diagnosis is responsible for its high rate of mortality. The patients are usually older, emaciated, small women. We presented a case of a small, thin, 88-year-old woman that came to our emergency department with a four-day history of lower abdominal pain, more intense in the left iliac fossa associated with anorexia and constipation. The diagnosis of the left obturator hernia was made intra-operatively. The small bowel, inside the obturator foramen, was necrotic so we made an enterotomy with primary repair of the hernia defect. The patient had post-operative ileus and left inguinal seroma. She was discharged on day 15 post-op with a good recovery. This case report is meant to be an alert for the difficulty of the obturated hernia diagnosis.

Keywords: Obturator hernia, Howship-Romberg sign, Hannington-Kiff sign, Intestinal obstruction

INTRODUCTION

Obturator hernia was first described by Ronsil in 1724 and successfully repaired by Henry Ombre in 1851.^{1,2,6} It refers to the herniation of abdominal contents through the obturator canal.^{1,2,4,6} It is a relatively rare type of hernia, representing at least 0.05% to 2.2% of all hernias, and it causes 0.2% to 1.6% of all small bowel obstructions.¹⁻⁷ Most patients with obturator hernia are small, emaciated, elderly females, hence called the 'little old lady's hernia'.^{1,3,4,7}

Obturator hernia can present with incarceration and acute intestinal obstruction.¹ It has a high rate of mortality (12-70%) which may be related to the delay in diagnosis due to a lack of specific signs.^{1,2,4,7} This delay will retard the treatment and thus can trigger irreversible injury to hernia contents like gangrenous bowel, viscus perforation, and peritonitis which may lead to death.¹ Therefore, early diagnosis and treatment are crucial.

CASE REPORT

We presented a case of a small, thin, 88-year-old woman that came to our emergency department with a four-day history of lower abdominal pain, more intense in the left iliac fossa associated with anorexia and constipation. She had no vomiting or fever. The day before she had already been evaluated in the emergency department for lumbar pain with radiation to the left leg and constipation being discharged with a lactulose prescription and the advice to be aware of alarm signals. This is a patient with multiple pregnancies in the past and a personal history of chronic constipation, hypertension, auricular fibrillation, dyslipidaemia, and uterus prolapse. On a detailed physical exam, she was pale but hydrated and had no fever. Her abdomen was soft with no palpable masses or hernias. The first blood exam revealed leucocytosis (18 600/µl) with neutrophilia (17 000/µl) and elevated C-reactive protein (CRP) (71.6 mg/l). In the second evaluation, these values increased, and serum creatinine rose from 0.88 mg/dl to

1.48 mg/dl. The abdominal X-ray revealed air-fluid levels and the echography raised the hypothesis of a left femoral hernia. The CT showed distended small bowel loops and heightened the left femoral hernia hypothesis as well (Figure 1). We proposed a surgical intervention that the patient and her family accepted. We first did a left inguinal incision to look for a femoral or inguinal hernia. We did find an inguinal hernia, but its sac was empty. There was no femoral hernia. Thus, we did an exploratory laparoscopy and realized that a loop of the small intestine was inside of the obturator foramen, and we couldn't reduce the hernia this way, so we decided to convert to an open approach. The small bowel was necrotic and had a 56 cm resection followed by a stapled side-to-side anastomosis with direct closure of the hernia (Figure 2 and 3). We closed the lower midline laparotomy incision with a non-absorbable suture and corrected the inguinal hernia using Rutkow-Robbins's technique.

The patient had post-operative ileus and developed a seroma in the left inguinal incision that was treated by local drainage and dressing in our surgery department. She was discharged on her 15th day after the resolution of seroma and bowel functioning was restored. The histology was negative for neoplasia. She recovered well after discharge and had no evidence of hernia recurrence nor other complications at 1-month and 6-month follow-up appointments.



Figure 1: CT scan showing the obturator left hernia with bowel inside of obturator foramen (arrow).



Figure 2: Intra-operative image showing a part of the small bowel protruding from the left obturator foramen (arrow).

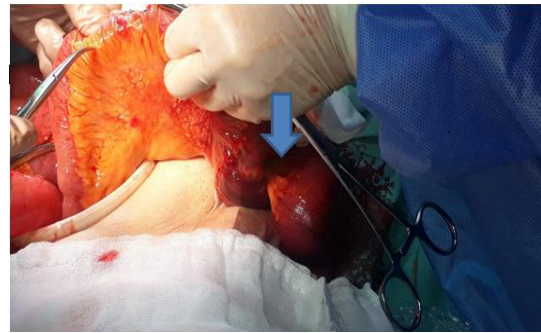


Figure 3: Intra-operative image showing the strangulated small bowel loop (arrow), preparing for enterotomy.

DISCUSSION

An obturator hernia is an extremely rare type of hernia characterized by a herniation of bowel or abdominal content between the obturator and pectineus muscles into the obturator canal.^{1,2,4} This canal is about 3 cm long and 1 cm wide and contains the obturator nerve and vessels. It is a passage formed in the obturator foramen by part of the obturator membrane and the pelvis.^{2,5,6} Obturator foramen results from the fusion of the ischial and pubic bones.^{6,10}

The hernia sac usually contains small bowel which leads to intestinal obstruction and less often it can contain an appendix, bladder, or, even rarer, ureter.^{3,9} This hernia is nine times more common in women than in men and usually occurs in small, emaciated, older females, ages 70-90, hence it is called the 'little old lady's hernia'.^{1,3,4,6,7} Additional predisposing factors include constipation, ascites, chronic obstructive pulmonary diseases, and multiparity.² Multiparity results in ligamentous laxity and weakening of the obturator membrane increasing the risk of obturator hernia in those women.^{1,2,10} They are typically right-sided due to the sigmoid colon on the left, less likely to strangulate.³

Despite its rareness, obturator hernia has a high risk of mortality, as high as 70% due to delay in diagnosis and treatment that makes that when it is diagnosed there are already bowel or other viscus necrosis, perforation, and sepsis. This delay in diagnosis might be related to nonspecific signs and symptoms.¹⁻¹⁰ Sometimes patients may present the Howship-Romberg sign-pain on the medial aspect of the thigh up to the knee due to compression of the obturator nerve by the hernia itself in around 15 to 50% of the cases. The Hannington-Kiff sign is more specific but less known and corresponds to the absence of an adductor reflex of the thigh.¹⁻¹⁰

The development of an obturator hernia occurs in three stages. In the first stage, the preperitoneal fat and connective tissue enter the obturator canal. Secondly, there is the formation of a dimple over the peritoneum near the internal orifice of the canal, and progresses in the formation of the sac.^{3,5} In the third stage, viscera enter the

sac, and the hernia is formed. Most of the cases are diagnosed in the third stage.^{3,5} Laboratory tests and bowel sounds are often normal unless there are clear signs of bowel obstruction with bowel necrosis or perforation. The abdominal X-ray may show signs of obstruction, but CT remains the gold standard to diagnose obturator hernia. Our patient was a typical small, thin, old female with multiple comorbidities and a history of multiple pregnancies and chronic constipation, which are all risk factors to develop an obturator hernia. She came to us with obstipation and abdominal pain for four days. The X-ray and lab tests showed us a possible bowel obstruction. The echography and CT raised the hypothesis of femoral hernia, proving the difficulty in establishing this diagnosis. We find out a left obturator hernia, as in fact, a big number is diagnosed in the operating room.

Unfortunately, there was already bowel necrosis, so we did a small bowel resection with stapled side-to-side anastomosis with direct closure of hernia defect primarily. The treatment of this hernia is surgical in all cases but there is still no consensus as to optimal repair; some authors still defend that in perforation or necrosis cases, as in ours, the use of prosthesis is not recommended due to the risk of infection. Despite this, other recent studies advocate its use due to the fewer complications and less time of recovery in old and debilitated patients.¹⁻¹¹ The recurrence rates described in the literature are relatively low with primary repair (3 to 10%) and even lower with laparoscopic approaches (TAPP, TEP).¹⁻¹¹

CONCLUSION

This case report was an alert for all our health care colleagues to be aware of the obturator hernias characteristics because, although its rareness, the diagnosis represents a huge challenge and a delay in it may be catastrophic consequences to the patient.

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