

Case Report

Bowel obstruction in obturator hernia: a challenging diagnosis

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ABSTRACT

The obturator hernia is a rare pelvic hernia that presents as bowel obstruction caused by the presence of an intestinal segment, more often ileum passing through obturator foramen. This type of hernia accounts for 0.5-1.4% of all hernias. We reported the clinical case of a 74 year old woman with no previous surgical interventions, presented to ER with abdominal pain and distension, features of intestinal obstruction, which she had experienced for previous three days. A CT scan revealed a right jejunal, obstructed obturator hernia. The patient underwent an emergency surgical intervention with emergency exploratory laparotomy and repair. This case was presented as obturator hernia was a rare type of hernia due to its diagnosis, which is often unclear with non-specific pain radiating to legs mimicking neurological symptoms. A prompt suspect based for the non-specific symptoms is crucial for the diagnosis. Surgical management depends on early diagnosis and it is the only possible treatment for this pathology.

Keywords: Strangulation, Obturator Hernia, Laparotomy

INTRODUCTION

Obturator hernia is a rare pelvic hernia, accounting for the 0.5-1.4% of all hernias occurring through passing through the obturator foramen of the pelvic wall, that frequently causes bowel obstruction (Figure 1 a and b).² It is observed in elderly emaciated and multiparous women, so it's also called little old's lady hernia (Figure 1a).¹

The hernia sac usually contains small bowel, rarely appendix, colon, Meckel diverticulum or momentum.³ A prompt diagnosis and treatment could avoid complications such as necrosis of intestine which increases morbidity and mortality.

CASE REPORT

A 74 year old, emaciated woman was brought to the emergency department of our hospital complaining of abdominal pain, nausea and vomit which she had experienced for three previous days. The patient was afebrile, tachycardic, with a blood pressure of 115/60. The abdominal exam was negative, faint borborygmi's were audible, no palpable mass was detected and there were no feces on the digital rectal examination.

A chest and abdomen X-ray revealed air-fluid level in the mesogastric region and no pulmonary lesions were observed. An abdominal ultrasound showed the gallbladder filled with biliary sludge with no pathological findings. A nasogastric tube and a urinary catheter were placed. Patient was rehydrated with saline solutions. The nasogastric tube was draining 500 ml of bilious fluid

daily. Her abdomen was tender, distended and tympanic to palpation and percussion, an X-ray of the abdomen demonstrated air-fluid levels. Based on the suspicion of an acute bowel obstruction, a CT scan was the best applicable solution. The scan revealed a small intestine segment strangulated through the obturator right foramen with surrounding peritoneal free fluid (Figure 2).

The patient was transferred to the operating room and underwent to an emergency exploratory laparotomy, the exploration of the peritoneal cavity confirmed the

radiological diagnosis of bowel obstruction due to a obstructed loop of small intestine entering the right obturator foramen (Figure 3). The bowel loop was reduced after enterotomy and the defect was closed with a proline mesh. No small bowel resection was performed because of the vital aspect of the intestine.

Post-operative period was uneventful. The patient started oral feeding and passed stool on the third post-operative day, discharge was on seventh post-operative day after a complete restoration of the bowel function.

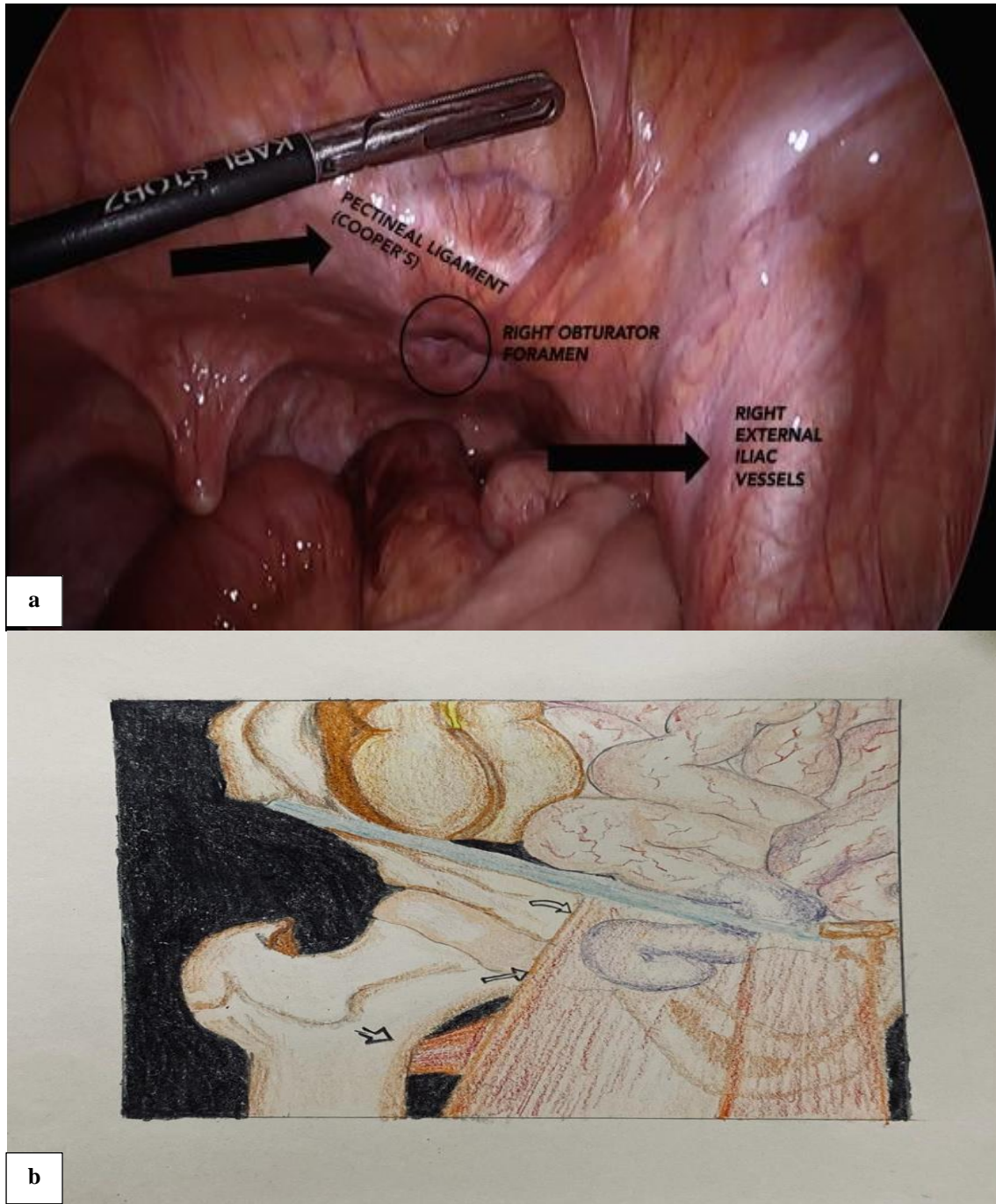


Figure 1: (a) Laparoscopic view of obturator fossa anatomy; (b) diagrammatic representation of obturator hernia with ileal loops.

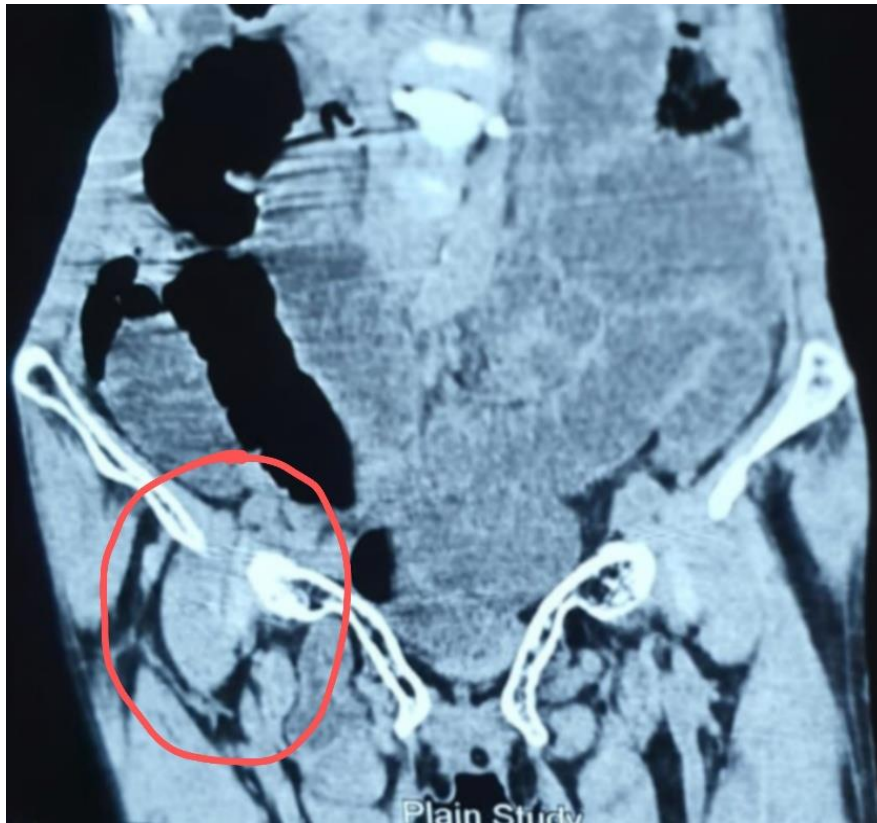


Figure 2 : CT scan showing the prolapsed small bowel loops through the obturator foramen.

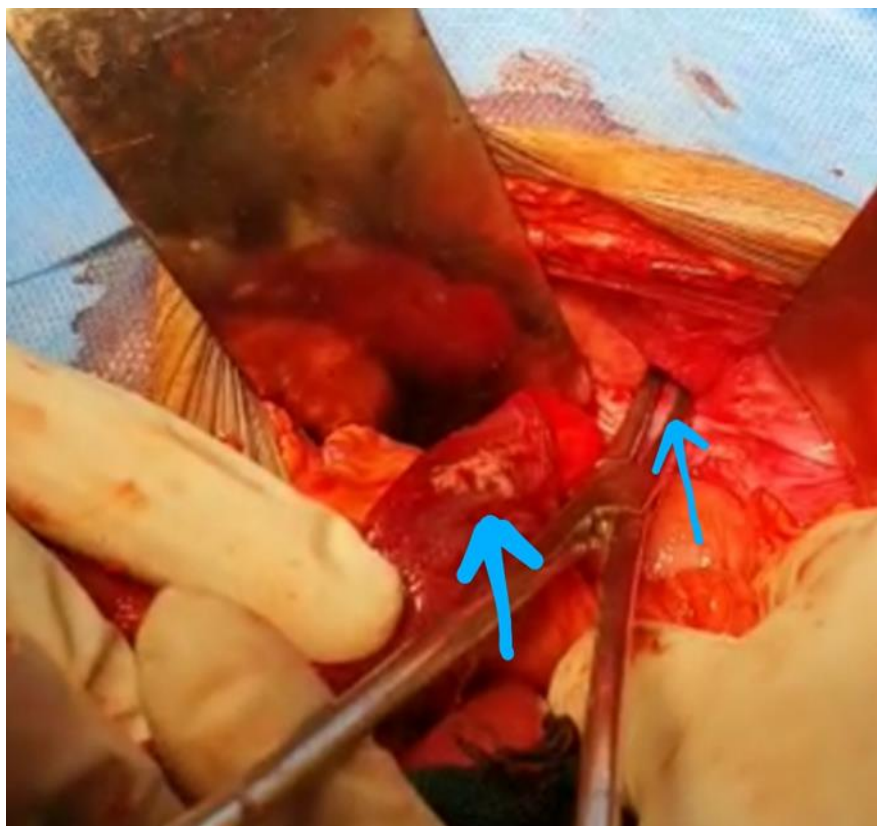


Figure 3 : Per operative finding of obturator foramen with reduced strangulated small bowel loop.

DISCUSSION

Because of the non-specific symptoms, the diagnosis of this kind of hernia is often unclear with non-specific pain radiating to legs mimicking neurological symptoms. Females are 6-9 times more likely than men to be subject to the aforementioned pathology, mostly occurring in multiparous, emaciated, elderly woman so it is also called the little old lady's hernia.

Risk factors are loss of weight, chronic pulmonary disease and ascites which increase the abdominal pressure. An unfrequent presenting sign is a palpable mass, or the Howship-Romberg sign, a pain radiating from the inner thigh and knee, but it could be misleading when confused with symptoms of gonarthrosis or lumbar vertebral disc pathology. CT scan has superior sensitivity and accuracy with respect to other radiological exams to assess the presence of an obturator hernia.

Due to the peculiarities of this type of hernia, different problems have arisen while conducting the diagnosis of the pathology. Symptoms such as the pain radiating from the inner parts of the thigh, the knee or the hip could be confused with the dorso-lumbar intervertebral disc pathology.

Signs such as Howship-Romberg and Hannington-Kiff are nonspecific and they should be associated with a CT scan which is clearly the best performable radiological exam.^{4,5}

Different surgical approaches are proposed: laparoscopic surgery, both TAPP (transabdominal) or TEP (total extraperitoneal), is feasible in expert settings, but in an emergency set-up usually a midline incision by laparotomy is required to allow a wider exposure of the obturator ring, the pelvic floor and the lower abdomen, especially in the case of gangrenous bowel resection.⁶

Other possible approaches can be performed via trans inguinal, retropubic or femoral.⁷ The obturator stump could be repaired using a primary suture which has an acceptable recurrence rate lower than 3%, a absorbable mesh, a plug or a peritoneal and momentum patch.⁸

CONCLUSION

Obturator hernia is a rare entity so its diagnosis is often unclear, a prompt suspect based on nonspecific symptoms is crucial for the diagnosis. CT scan has a higher sensitivity than other radiological exams. Surgical management depends on early diagnosis and it is the only possible treatment for this pathology.

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