



A CASE REPORT: SMALL BOWEL OBSTRUCTION DUE TO OBTURATOR HERNIA

General Surgery

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ABSTRACT

Introduction: The obturator hernia is an uncommon cause for small bowel obstruction. It is classically described in thin elderly women. Delay to diagnosis may result in strangulation and gangrenous bowel at subsequent laparotomy. The classically described signs, whilst useful when present, are absent in greater than 50% of cases, and preoperative diagnosis is made on radiological imaging. **Case report:** A 79-year-old female presented to hospital with a 2 – days history of vomiting, generalized dull aching abdominal pain and unable to pass stool for 2 days. Past medical history included scoliotic deformity in lumbar spine and previously operated for tubal ligation before 32 years. Laparotomy, bowel resection and suture hernia repair were undertaken. A subsequent presentation of small bowel obstruction was due to recurrence of the obturator hernia. However, resolved without operative management. **Discussion:** A very high index of suspicion is required when presented with the case of small bowel obstruction in an elderly female patient. One must therefore, also consider that any subsequent presentations of small bowel obstruction may be due to recurrence of the obturator hernia, the differential being adhesive bowel obstruction, and delay to definitive treatment is associated with poorer prognosis. **Conclusion:** A high index of suspicion is required to diagnose an obturator hernia clinically. Failure to do so results in greater mortality and morbidity. Early cross-sectional imaging can make the diagnosis and lead to earlier surgical repair. A diagnostic challenge, an obturator hernia is a rare cause of small bowel obstruction. Delay in diagnosis is associated with adverse outcome. Computed tomography scan has proved invaluable to early detection and repair.

KEYWORDS

INTRODUCTION:

Obturator hernia, which passes through the obturator canal, occurs six times more frequently in women than in men. Most patients are aged >60 years. The swelling is liable to be overlooked because it is covered by pectineus. It seldom causes a definite swelling in Scarpa's triangle, but, if the limb is flexed, abducted and rotated outwards, the hernia some- times becomes apparent. The leg is usually kept in a semi- flexed position and movement increases the pain. In more than 50% of cases of strangulated obturator hernia, pain is referred along the obturator nerve by its geniculate branch to the knee. On vaginal or rectal examination, the hernia can sometimes be felt as a tender swelling in the region of the obturator foramen.

These hernias have often undergone strangulation, frequently of the Richter type, by the time of presentation.

Features:

- Usually presents with features of intestinal obstruction (85%) and more often confirmed only on laparotomy.
- Rarely seen as a swelling in Scarpa's triangle (20%) deep to the pectineus muscle, with limb in flexed and abducted position. Movement of limb is painful.

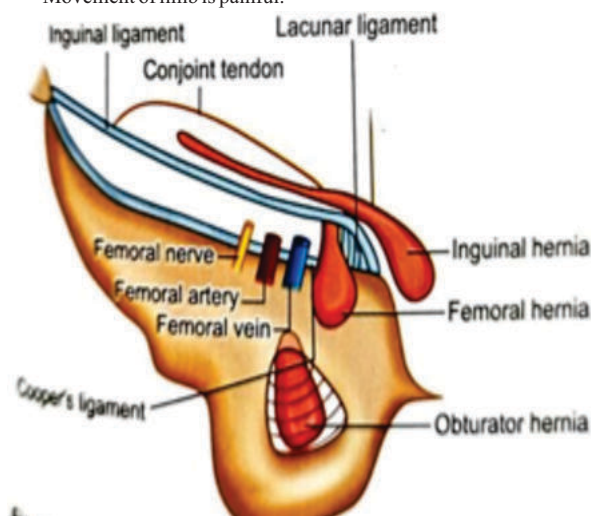


Figure 1: obturator hernia through obturator canal in obturator foramen.

An obturator hernia is a result of weakening of the obturator membrane, allowing a hernial sac to pass through the obturator foramen. An uncommon type of hernia, and a rare cause of bowel obstruction, it is often clinically difficult to diagnose as the cause of obstruction. The pathognomonic sign, present in up to 50% of cases, is the **Howship-Romberg sign** (it is an indication of obturator nerve irritation resulting in inner thigh pain that may extend to the knee on internal rotation of the hip) compression of the obturator nerve causing pain with or without paraesthesia in the anterior-medial thigh.

The Hannington-Kiff sign is positive when there is loss of the adductor reflex in the presence of an active patellar reflex. Cross-sectional imaging with either computed tomography (CT) or magnetic resonance imaging plays an important role in preoperative diagnosis of this uncommon hernia. This report discusses a case of recurrent obturator hernia and the value of CT scan for diagnosis.

Treatment:

Surgery is indicated. The diagnosis is rarely made properly actively and so it is often approached through a laparotomy incision. The full Trendelenburg position is adopted. The con- structing agent is the obturator fascia, which can be stretched by inserting the operator's index finger, or suitable forceps, through the gap in the fascia. Content is reduced. If incision

CASE-REPORT:

A 79-year-old female presented to hospital with a 2 – days history of vomiting, generalized dull aching abdominal pain and unable to pass stool since 2 days. Past medical history included scoliotic deformity in lumbar spine and previously operated for tubal ligation before 32 years. Initially, the patient was admitted to emergency department with working diagnosis of gastroenteritis or constipation and enemas and supportive treatment was initiated overnight.

The following day, an abdominal X-ray suggesting acute small bowel obstruction. For the further evaluation CT abdomen was advised. The Howship-Romberg sign was not present (Figure 1). Imaging confirmed a right sided obturator hernia containing a loop of small bowel as the cause of the obstruction, with multiple dilated loops of small bowel and moderate intraperitoneal fluid.

The patient underwent emergency laparotomy, suture repair with omental plug of the obturator hernia and small bowel resection for gangrenous constriction rings of the small bowel with ileo-ileal anastomosis.

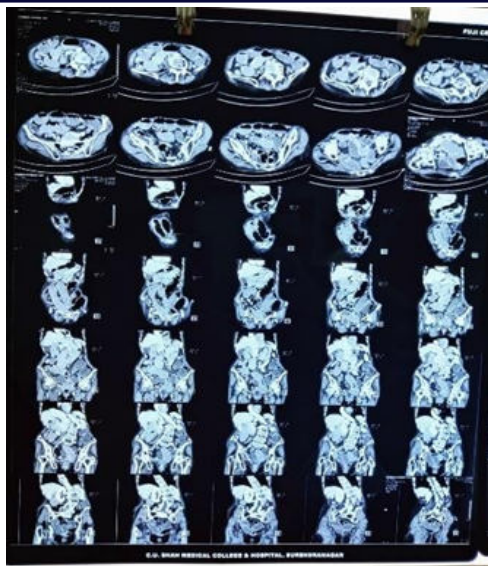


Figure 2: CECT image showing obturator hernia on right side with abrupt luminal narrowing of distal ileal loop in RIF & dilated small bowel loops show multiple air fluid level.



Figure 3: Intra- operative image showing right obturator hernia.

DISCUSSION:

The obturator hernia was first described by Arnaud de Ronsil in 1724. Its incidence has been reported as 0.07–1% and it accounts for up to 1.6% of small bowel obstructions. The first laparotomy for a strangulated obturator hernia was performed by Hilton in 1848, however, Obre performed the first successful repair in 1851. Predisposing factors include increasing age, female gender (6:1 F:M ratio), multiparity, emaciation and condition associated with chronically raised intra-abdominal pressure (e.g., ascites, chronic pulmonary disease, chronic constipation). Most often, obturator hernia is diagnosed in elderly, emaciated females, and so have been named the little old ladies' hernia. Diagnostically, they pose a challenge, as the pathognomonic features are present in fewer than 50% of patients. Cross-sectional imaging has increased the rate of preoperative diagnosis, as well as decreasing morbidity and mortality it results in earlier intervention.

Various approaches are available for operative repair of an obturator hernia. Most commonly, an open abdominal approach has been employed, however, retropubic, obturator and inguinal approaches have been described. Laparoscopic repair is possible via transabdominal and extraperitoneal approaches. Mesh repairs have been reported to have a lower recurrence rate compared with suture repair, which has been reported as less than 10%.

In our case, perioperative diagnosis was confirmed by CT scan and the patient underwent intervention in a timely fashion. Due to the delay in seeking medical attention from onset of symptoms, non-viable bowel and subsequent resection, precluded the use of mesh for hernia repair. A very high index of suspicion is required when presented with the case of small bowel obstruction in an elderly female patient. One must therefore, also consider that any subsequent presentations of small bowel obstruction may be due to recurrence of the obturator hernia, the differential being adhesive bowel obstruction, and delay to definitive treatment is associated with poorer prognosis.

CONCLUSION:

The consideration of an obturator hernia as a cause of small bowel obstruction remains an important differential, especially in the absence of palpable hernia and a negative history for abdominal surgery. Obturator hernia usually present in elderly patients in their seventh or eighth decade of life, with a low body mass. There is a female predominance. The classical findings are present in fewer than half of cases and early employment of computed tomography scan in the acute setting to confirm the diagnosis results in timely surgical intervention. Laparotomy is done and the sac is identified. It is dissected and ligated. If strangulation is present (common), resection and anastomosis is done. Broad ligament is stitched over the opening to prevent recurrence. Mesh placement is the ideal way of repairing the obturator defect. In nonobstructive type, if diagnosed clinically and by CT scan imaging, either TEP (laparoscopic) or lower abdominal midline extraperitoneal approach may be the method to manage the obturator hernia.

In strangulated hernia, rarely additional exposure in thigh often may be required to reduce the content through a vertical medial pectineus muscle split incision.

CONSENT:

Written consent was obtained from both patients for publication of this case report and accompanying images.

CONFLICT OF INTEREST:

There is no conflict of interest behind this study.

FUNDING:

No source of funding or sponsor.

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