

Case Report

Richter's type of obturator hernia with Howship Romberg sign: a case report

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ABSTRACT

Obturator hernia is a rare type of pelvic hernia in which intraperitoneal contents protrude through the obturator foramen and is most commonly found in females. It accounts for about 1% of all abdominal hernias and possesses a great diagnostic challenge due to the non-specific symptoms and meagre clinical signs. Hereby we report a case of obturator hernia in a nonagenarian emaciated fragile old lady who presented with features of acute Intestinal obstruction and was diagnosed using computed tomography as right sided obturator hernia and eventually was taken up for emergency laparotomy. The herniated segment was resected and anastomosis was done with primary closure of the defect. Postoperative period was uneventful and the patient was discharged on postoperative day 7.

Keywords: Obturator hernia, Howship-Romberg, Elderly female, Pelvic hernia

INTRODUCTION

Obturator hernia is a rare pelvic hernia with an incidence of 1% amongst all abdominopelvic hernias. It most commonly presents as acute intestinal obstruction or as multiple episodes of subacute intestinal obstruction involving the small bowel predominantly the distal ileum in majority of the cases. It can also contain the appendix, Meckel's Diverticulum or Omentum.²

The hernial sac passes through the obturator foramen, following the path of obturator nerves. Patients can present with pain on the medial aspect of the thigh radiating till the knee which is described as Howship-Romberg sign. The pain may get aggravated on coughing and medial rotation of the hip. Rarely there may be a palpable mass on the medial aspect of the thigh. However, the signs and symptoms are usually very inexplicit and hence high index of suspicion in high risk individuals with prompt imaging modalities can aid in diagnosing this rare cause of mechanical intestinal

obstruction. CT scan has a better sensitivity and accuracy in diagnosing the condition compared to ultrasound of the abdomen.²

CASE REPORT

A 91 year old fragile emaciated multiparous woman weighing 36 kgs presented to the emergency department with a 5 day history of nausea, vomiting, constipation and pain over the inner aspect of right thigh. Apart from left hip replacement for osteoarthritis 10 years back she did not undergo any major surgeries. Her abdominal examination revealed a distended abdomen with sluggish bowel sounds with no mass palpable per abdomen. There was no obvious swelling in the thigh. Bilateral hernial orifices were free of expansile impulse on coughing. Per rectal examination revealed an empty rectum. Her laboratory investigations were within normal limits except for an elevated leucocyte count of 12×10^3 / cumm with predominant neutrophils. X ray abdomen was taken which showed dilated bowel loops with air fluid levels suggestive of small bowel obstruction. CT was done

which showed a right-sided obturator hernia (Figure 1) with herniation of Distal ileal loops with features of small bowel obstruction. Patient was taken up for emergency laparotomy and was found to have a strangulated loop of distal ileum 45 cm from ileocaecal junction through the right obturator foramen. The loop was released to identify Richter's type of hernia. The herniated segment was resected and anastomosis was done with primary closure of defect in obturator foramen using interrupted sutures. Post-operative period was uneventful and the patient was discharged on POD 7.



Figure 1: Right sided obturator hernia. There is an artifact due to prosthesis in left hip following hip replacement.

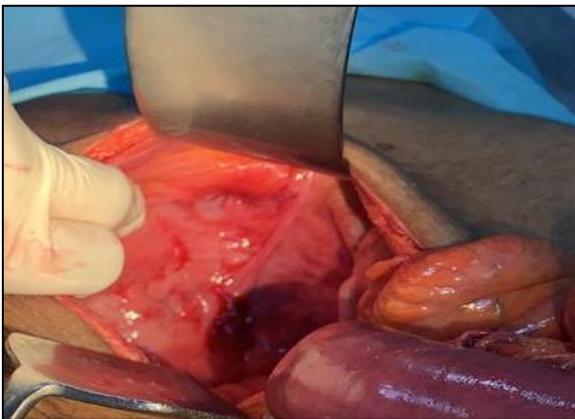


Figure 2: Obturator canal after releasing the contents.



Figure 3: Closure of defect in obturator canal with interrupted sutures.

DISCUSSION

Obturator hernia was first described by Arnaud de Ronsil in 1724 and was successfully treated for the first time by Henry Obre in 1851.³ Obturator hernia protrudes through the circle surrounded by the superior ramus of the pelvic bone in the front, the obturator membrane and the internal and external obturator muscles on the inferior side, and the obturator vessels and the nerves on the posterolateral aspect. Obturator hernia accounts for 0.2%-1.6% of cases of mechanical intestinal obstruction and is more common in elderly females.^{1,5} Recent studies have shown a higher incidence of 6% and suggested that the true incidence may be higher if more patients underwent radiological evaluation prior to definitive management. The higher occurrence in women is believed to be due to the difference in anatomy of the female pelvis, where there is an increased transverse diameter and a steeper oblique orientation of the obturator canal.^{5,8,9} An increase in the laxity of pelvic tissues secondary to atrophy of preperitoneal fat around the obturator vessels has been highlighted as a predisposing factor in the development of an obturator hernia.⁵ This is frequently seen in underweight older women (70–90 years old); thus, the obturator hernia has been nicknamed the 'Little Old Lady's Hernia'.^{5,10} The most common locations of an obturator hernia are between the internal and external obturator muscles, between the superior and medial fasciculi of the external muscles, and between the pectineus and external obturator muscles.⁵

Due to the nonspecific signs and symptoms, obturator hernia is difficult to diagnose.¹ The preoperative diagnosis rate is reported as only 10–30%.² More than 90% of patients with obturator hernia are admitted to the hospital with acute intestinal obstruction, presenting with abdominal pain, nausea, and vomiting.⁹ The most specific clinical symptom of an obturator hernia is intermittent obturator neuralgia which is exacerbated by medial rotation, adduction or extension.⁵ Flexion tends to result in relief of symptoms. This pain pattern is known as the Howship–Romberg sign and when associated with small bowel obstruction is pathognomonic of an incarcerated obturator hernia and is present in 50% of patients. This sign can be misinterpreted for osteoarthritis in the older patients. Another clinical sign of obturator hernia is the Hannington-Kiff sign in which the adductor reflex is absent in the thigh.³

There should thus be a high level of suspicion of an obturator hernia in underweight, multiparous, older women who present with small bowel obstruction and features of obturator nerve compression. Prompt radiological evaluation, preferably with CT, aids in diagnosis and timely intervention.¹ The only treatment for obturator hernia is surgery. Surgical repair with non-absorbable sutures is the mainstay of treatment performed with open or laparoscopic techniques.² There are a variety of operative approaches including inguinal, retropubic and transperitoneal approach. In the emergency setting,

the abdominal approach via a low midline incision is most commonly favoured, as it allows adequate exposure of the obturator ring as well as the identification and resection of any ischaemic bowel. Laparotomy via low midline incision was done in this case. Repair of a contralateral obturator canal defect is rarely attempted due to a low recurrence rate and the need for additional operative time.⁴

Recently, laparoscopic repair for obturator hernia has been gaining momentum due to less postoperative pain, shorter hospital stay and lower complications.¹ However, it is usually reserved for uncomplicated hernia because of more challenging techniques. Both transabdominal and extraperitoneal approaches have been described.² Transabdominal approach is appropriate for the emergency setting, as it allows exploration of the abdominal cavity, diagnosis of the cause of the bowel obstruction, reduction of the hernia, thorough inspection and identification of ischaemic bowel, and resection of bowel if required.² The laparoscopic total extraperitoneal (TEP) approach is more feasible if the diagnosis is established before surgery in symptomatic patients.² More often than not, obturator hernia is detected during TEP repair for inguinal hernias. This reflects the importance of inspecting all the myopectineal orifices during the TEP approach to allow for the diagnosis and repair of asymptomatic obturator hernias.

Since our patient presented with acute intestinal obstruction exploratory laparotomy through a midline incision was made and resection and anastomosis of the strangulated segment of distal ileum was done along with primary closure of the defect in right obturator canal using 1- prolene in interrupted sutures.

CONCLUSION

Obturator hernia, a rare cause of mechanical intestinal obstruction can be easily missed if proper suspicion and prompt investigations are not carried out and more so due to the very nonspecific symptoms and meagre clinical signs. Abdominopelvic CT carries higher sensitivity in diagnosing the condition and can aid in early surgical intervention hence significantly reducing the morbidity and mortality. Hence Obturator hernia should be amongst the differential diagnosis in cases of acute intestinal

obstruction with unknown cause especially in the elderly age group.

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