

Small Bowel Obstruction due to Obturator Hernia: A Forgotten Diagnosis in Elderly Woman

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ABSTRACT

Obturator hernia is a rare abdominal hernia and presents a diagnostic dilemma. It usually presents with intestinal obstruction in elderly women. Delayed diagnosis and surgical intervention causes high morbidity and mortality due to bowel ischemia and gangrene. Computed tomography is a valuable tool for preoperative diagnosis. This report presents the case of a 60-year-old female patient with a small bowel obstruction caused due to an obturator hernia. A computed tomography scan is valuable to establish preoperative diagnosis.

INTRODUCTION

An obturator hernia is a rare cause of all abdominal hernias commonly seen in females. Its clinical diagnosis is often difficult due to uncommon incidence, its deep location and infrequent symptoms and signs. It accounts for 0.05%–0.4% of all hernias¹ and 0.2%–1.6% of all cases of mechanical intestinal obstruction.¹ It is more common in thin, elderly females and has a high mortality rate between 13% to 40%.² Delay in its diagnosis causes increased morbidity and mortality. Early CT imaging establishes diagnosis and detects asymptomatic contralateral obturator hernia. The following case report highlights these diagnostic difficulties and reviews the current literature on diagnosis and management of such cases.

CASE REPORT

A 60-year-old woman presented to the emergency department with vague generalized abdominal pain, distention for 10 days followed by recurrent episodes of bilious vomiting. She underwent open cholecystectomy four years back. On general physical examination, she was conscious, afebrile, tachycardia of 100 per minute, blood pressure of 110/70 mm hg. Systemic examination revealed generalized abdominal distention with tenderness, palpable gut loops and absent bowel sounds. Digital rectal examination was normal. All biochemical parameters of blood and urine are in normal limits. Abdominal radiograph shows multiple air fluid levels and ultrasonography of abdomen shows multiple dilated content-filled gut loops in abdomen. Abdomen CECT shows loops of gut herniating through the left obturator foramen below the left superior pubic ramus with proximal dilation of small bowel loops, stomach and esophagus. Air fluid levels are present in small bowel loops. Distal to obstruction, bowel loops are collapsed.

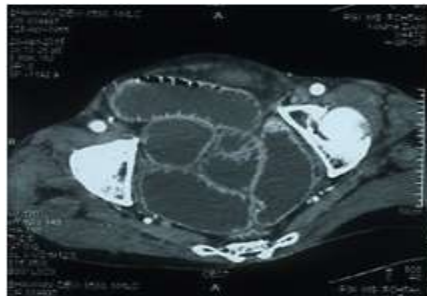


Figure 1 Abdominal CECT showing dilatation of gut loops. **Figure 1** Abdominal CECT Showing herniated small bowel in left obturator canal

The patient was taken to operating room for urgent surgery with diagnosis of intestinal obstruction due to incarcerated obturator hernia. Exploratory laparotomy was performed which confirmed obstructed left obturator hernia and the entrapped segment of bowel was released. Small bowel 100 cm proximal to ileocaecal junction was found to be gangrenous. Whole of small bowel was found to be edematous. Resection anastomosis was done with removal of 5 cm of ileum. The hernial defect was closed using prolene suture and round ligament used for strengthening the defect. Care was taken not to damage the obturator nerve. Post operative events was uneventful and outcome was satisfying. Patient was discharged from hospital after 2 weeks.



Figure 3 Showing strangulated segment of bowel in obturator canal



Figure 4 Showing left obturator foramen



Figure 2 Showing closure of defect with prolene and round ligament

DISCUSSION

Obturator hernias account for 0.07–1% of all hernias and 0.2–1.6% of all cases of mechanical obstruction of small bowel¹ having female to male ratio of 6:1. Female preponderance is due to large and more oblique incline of obturator canal. It occurs more on right side as sigmoid colon overlies left obturator foramen. Bilateral obturator hernias are seen in 6% of cases.³ Also known as “little old lady’s hernia”, its commonly seen in elderly females patients due to greater width of the pelvis, larger obturator canal and increased laxity of the pelvic tissues. Multiparity, COPD, constipation, ascites and causes of raised intra-abdominal pressure are its other predisposing factors.

Arnaud de Ronsil was the first to describe the obturator hernia in 1724 and Obre was the first to perform the successful operation in 1851.³ Obturator hernia occurs through obturator canal which is 1 cm wide and 2-3 cm long. The obturator foramen is formed by continuity of pubic and ischial bones and is covered by obturator membrane except in its anterosuperior aspect where it is perforated by obturator nerve, artery and vein. Clinical diagnosis of obturator hernia is difficult due to uncommon incidence, deep location and infrequent symptoms and signs. Early diagnosis is needed as delay in its recognition causes poor prognosis in patients. In general, obturator hernias are asymptomatic unless the hernia sac compresses the obturator nerve and produces the pathognomonic Howship–Romberg sign, which includes pain with or without paresthesia localised down the anteromedial thigh to the knee upon movement of the hip or thigh. The Howship–Romberg sign is positive in 15%–50% of cases.¹ The Hannington–Kiff sign, a clinical sign in which there is an absent adductor reflex in the thigh, is more specific but less known.⁴ Other symptoms include acute or intermittent small bowel obstruction with high risk of strangulation, weight loss and rarely a palpable mass. Delay in specific diagnosis causes increased morbidity and mortality as the only treatment available is surgical reduction and repair of hernia. Early CT imaging causes early diagnosis with reduced morbidity and mortality associated with obturator hernia. X-ray standing abdomen shows evidence of small bowel obstruction in cases of obstructed obturator hernia. Often it is misdiagnosed as inguinal or femoral hernia. Signs of small bowel obstruction are seen if it is obstructed and incarcerated. CT scan is diagnostic.

Various surgical approaches are described in the literature in cases of obstructed obturator hernia. Abdominal, inguinal, retropubic, obturator and laparoscopic approaches have been described. In our case, we preferred an abdominal approach utilizing a low midline incision because of the possibility of the strangulation of the obturator hernia. This method give better exposure of the obturator ring avoid obturator vessels and facilitate bowel resection. Methods of repair include simple suture closure, closure with adjacent tissue like omentum, broad ligament, uterine fundus, round ligament and mesh repair.⁵ After opening the parietal peritoneum, the hernia was repaired with prolene suture and strengthened with round ligament. Recently, laparoscopic surgery has been recommended in patients with low probability of strangulation and with definite preoperative diagnosis of obturator hernia. Both trans-abdominal and extra-peritoneal laparoscopic approaches have been described in the literature. Given these results and the fact that obturator hernias classically tend to occur in patients that have limited physiological reserve, an argument could be made for a shift in practice from open repairs towards laparoscopic repairs.^{6,7}

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