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Case Report

Obstructed obturator hernia containing Meckel's diverticulum: a case report

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ABSTRACT

An obturator hernia is a rare type of hernia and unusual cause of acute intestinal obstruction. The combination of diagnostic difficulty and high mortality rates make obturator hernia a serious diagnosis that can be potentially overlooked. We present a case of an elderly multiparous woman presented at the emergency room with complaints of abdominal distension, pain, vomiting and constipation for the last 4 days. On examination abdominal tenderness with distension was noted. Hernial orifices were normal. A CT and MRI reports were suggestive of right obstructed obturator hernia. Patient underwent emergency exploratory laparotomy. The hernial sac contained a narrow neck Meckel's diverticulum with perforation of proximal ileum. Resection of perforated segment along with Meckel's diverticulum was done and end to end ileo-ileal anastomosis was performed. Obturator foramen was closed with simple polypropylene sutures. CT/MRI scan is of immense help in preoperative diagnosis. Once the diagnosis is suspected or confirmed, patient should be taken for surgery as early as possible.

Keywords: Hernia, Meckel's diverticulum, Obstructed, Obturator

INTRODUCTION

Obturator hernia is a pelvic hernia in which a segment of bowel protrudes through the obturator foramen adjacent to the obturator vessels and nerve. It occurs more frequently in patients with ascites, chronic constipation, and chronic obstructive pulmonary disease and in thin, elderly multiparous women.[1] The most common clinical symptom is strangulation combined with mechanical intestinal obstruction.

Obturator hernias occur frequently in elderly patients with accompanying diseases, and therefore the morbidity and mortality rates are high.[2] Currently, diagnostic imaging, especially computed tomography, is widely used to diagnose obturator hernias before surgery in the early stages of the disease.[3] The aim of this report was to present the case of a patient with obstructed obturator hernia with content as a Meckel's diverticulum.

CASE REPORT

A 70-year-old female patient weighing 50kg presented to the ER with a four-day history of abdominal pain, abdominal distention, nausea, vomiting and absolute constipation. On physical examination abdominal distention, tenderness and hyperactive bowel sounds were present. Hernial orifices were normal. Abdominal x-ray images obtained in a standing position revealed dilated loops in the small intestines and multiple air fluid levels. Her MRI results showed a small intestine loop herniated through the obturator foramen and dilatation in the proximal small bowel (Figure 2). The patient was diagnosed with obturator hernia and was taken to the

operation theatre for exploration and opened by a midline lower vertical incision transperitoneally. During surgery, a strangulated small intestine segment containing Meckel's diverticulum extending through the right obturator foramen was detected with gross fecal peritonitis (Figure 1). Resection and end to end ileo-ileal anastomosis was done. Obturator foramen was closed with simple sutures, no mesh repair was done because of fecal peritonitis.

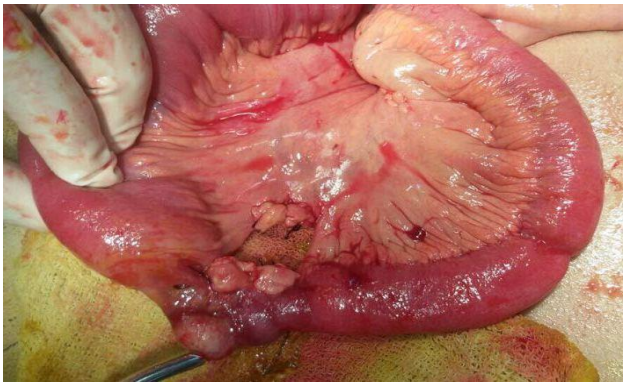

Figure 1: Gross photograph showing ileal loop and the meckel's diverticulum, proximal ileum is seen distended and the distal one collapsed.

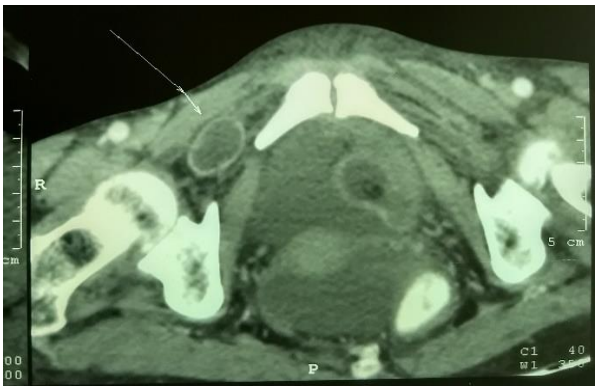

Figure 2: MRI image showing the small bowel loop descending into the right obturator canal anterior to the obturator externus muscle.

DISCUSSION

An obturator hernia is a rare type of hernia of the pelvic floor in which pelvic or abdominal contents protrude through the obturator foramen. It is much more common in multiparous older women who have recently lost a lot of weight. Obturator hernia is associated with four cardinal findings. The most common clinical manifestation is intestinal obstruction, which occurs in over 80% of patients. This is often in the form of acute obstruction secondary to hernia strangulation.[4] The second most common finding is the Howship-Romberg sign, seen in about one-half of patients with obturator hernia. With this sign, patients characteristically complain of pain along the medial surface of the thigh that may radiate to the knee and hip joints.[5,6] The third finding, observed in 30% of patients, is a history of repeated episodes of bowel obstruction that pass quickly and without intervention. This is likely due to periodic incarceration of the hernia sac in the obturator canal.

Finally, a fourth finding is a palpable mass in the proximal medial aspect of the thigh at the origin of the adductor muscles. The only treatment for obturator hernia is surgery. The operative approaches include Inguinal, Retropubic and Transperitoneal.

In emergency setting, the abdominal approach via a low midline incision is commonly favoured as it allows adequate exposure of the obturator ring and the same approach was chosen in our case also. Abdomen was opened by a midline lower vertical incision transperitoneally. Exploration revealed gross fecal peritonitis and a reflection of peritoneum passing inferiorly behind the superior pubic ramus. The hernia sac was very edematous and stuck snugly in the obturator canal. The opening was tried to be dilated but it was very rigid and could not be dilated.

Therefore, we gave another incision over thigh just below the inguinal ligament. A site for thigh incision can be decided by pushing the finger from inside palpating the obturator foramen. Usually hernia may not be felt in thigh as it lies superficial to obturator externus and deep to pectineus muscle. Once the thigh was opened, the sac could be visualized and it was pushed up. This maneuver of traction and counter-traction gave result and the sac was reduced. Contents of the sac were examined which revealed a narrow neck Meckel's diverticulum which showed the signs of compromised vascularity and a small perforation in the proximal ileum.

Hence resection and end to end ileo-ileal anastomosis was done, sac was ligated and excised. Obturator foramen was closed with simple sutures, no mesh repair was done because of fecal peritonitis. Thorough peritoneal lavage was done and wound closed in layers. Patient was shifted to I.C.U. and treated with broad spectrum antibiotics.

CONCLUSION

Obturator hernia is an extremely rare cause of intestinal obstruction but when you come across an emaciated multiparous old lady with acute intestinal obstruction, this diagnosis should be kept in mind. The hernial sac may contain appendix, Meckel's diverticulum (as in our case), ovary, fallopian tubes, etc. CT scan is of immense help in preoperative diagnosis. Once the diagnosis is suspected or confirmed, patient should be taken for surgery as early as possible.

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