

Internal hernia of the Broad Ligament leading to acute intestinal obstruction: a case report

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ABSTRACT

Acute intestinal obstruction is a frequently encountered surgical emergency but cases arising from internal herniation through the broad ligament are very rare. We report a case of a middle aged lady with intestinal obstruction due to internal herniation of small bowel through the right side of broad ligament and managing her successfully by timely and immediate surgical intervention.

Key Words: Acute Intestinal Obstruction, Broad Ligament, Internal Hernia

INTRODUCTION

Acute intestinal obstruction (AIO) is a commonly encountered surgical emergency requiring immediate intervention. Although, internal hernia as a cause of AIO is found in a limited number of cases but the incidence of intestinal obstruction due to broad ligament hernia is even rarer. Internal hernia is defined as herniation of the hollow viscus through an opening, natural or unnatural within the peritoneal cavity.^[1] The reported incidence of internal hernia is 0.2-0.9% and the most common site of internal hernia is paraduodenal.^[2] However, the hernia through the broad ligament are had a reported incidence of 4-7% of internal hernias.^[3] Broad ligament hernia are difficult to detect preoperatively and their diagnosis is confirmed during laparotomy at most of the time. We present a case of right side broad ligament hernia leading to acute intestinal obstruction which was diagnosed during surgery and successfully managed.

CASE REPORT

A 55 year old lady patient was admitted to Dr Rajendra Prasad Government Medical College Kangra, at Tanda in the emergency for absolute constipation since 2 days and colicky abdominal pain for 1 day, which was localized in the lower abdomen and was moderate in intensity. It was accompanied with 3 episodes of bilious vomiting and fever since one day. The patient did not give any positive history regarding previous anaesthesia/surgical exposure.

On physical examination patient was dehydrated with compromised haemodynamic variables (Heart Rate=110 per minute, Blood Pressure=90/68 mm of Hg). On performing abdominal examination, slight distention was seen with tenderness in the right lower quadrant without guarding/rebound tenderness. Bowel sounds were exaggerated. Digital rectal examination and per vaginal examination did not reveal any abnormality. Laboratory/Radiological investigations (Haemogram, Renal function tests, Serum Electrolytes, Radiological Investigations, EKG) were within normal limits. Abdominal radiographs in standing and supine position revealed multiple air fluid levels and dilated small bowel loops. Ultrasonography of the abdomen showed dilated small bowel loops measuring up to 36 mm with minimal inter-loop fluid. Diagnosis of acute intestinal obstruction was made and patient was prepared for exploration. On laparotomy dilated small bowel was found from ligament of treitz up to 1.5 feet proximal to ileocaecal junction. Ileum was herniating through a defect of approximately 3 cm in size in the broad ligament on the right side posteriorly [Figure 1]. Ileum was reduced manually and was viable. The defect in the broad ligament was closed. Postoperative period was uneventful and patient was discharged on eighth postoperative day.

DISCUSSION

Quain was first to report a case on hernia through the defect in the broad ligament on autopsy in 1861.^[4] Hunt broadly divided broad ligament hernia into two types: fenestra type, which has a complete fenestration from the defect in the broad ligament and pouch type in which there is a defect in the anterior or posterior aspect of the broad ligament.^[5] Broad ligament hernia may be bilateral or unilateral.^[3] Most frequently ileum

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is seen herniating through the defect, but colon, ureter and ovary can also herniated.^[6]

The defect in broad ligament may be acquired or congenital.^[3,6] Although the exact cause of these defects has not been established, the reasons attributing to defects are previous surgeries, pelvic inflammatory disease obstetric trauma and congenital defects.^[7] Cystic structures are seen in the broad ligament, which were believed to be remnants of the mesonephron of the mullerian ducts by Gray and Skandalakis, and the rupture of these cystic structures leads to defects through the broad ligament.^[8]

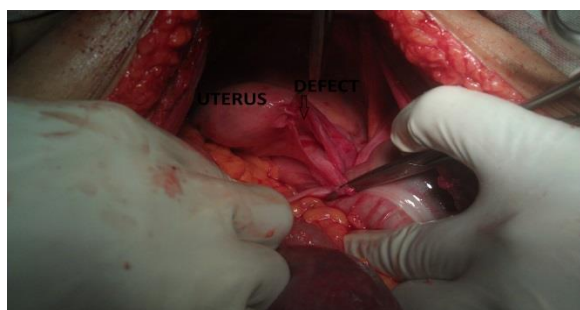


Figure 1: Intraoperative picture of the internal hernia of the broad ligament

Preoperative diagnosis is often difficult to establish as mentioned earlier due to non-specific symptoms, signs and a very low index of suspicion and because of the common presentation of bowel obstruction.^[1] Abdominal radiographs also show features of bowel obstruction. Computed tomography can suggest the presence of an internal hernia, but to diagnose the hernia through a defect of the broad ligament is not possible.^[1,3]

Treatment of these defects is surgical and it includes simple manual reduction, which can reduce morbidity and mortality from strangulation.^[3] Laparoscopic techniques have also been described for the treatment of internal hernia. However, in our case Computed tomography could not be done as the patient was in compromised haemodynamic state and had to undergo surgery quickly. We successfully managed this case with immediate laparotomy and proper closure of the defect was done.

CONCLUSION

Internal hernia through the broad ligament leading to intestinal obstruction is rare entity and proper preoperative diagnosis although difficult but warrants good patient outcome. Our case advocates the historical view of abdomen as Pandora box (sun should not set and should not rise) in a case of intestinal obstruction holds true. Morbidity and mortality can be avoided if timely surgical intervention is undertaken in these cases.

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