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A Case Report on Obturator Hernia

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Abstract: ***Herniation of abdominal contents most often small bowel through obturator canal is known as obturator hernia. The obturator hernia is a rare pelvic hernia that often presents with symptoms of bowel obstruction. Obturator hernia corresponds to 0.5 - 1.4% of all abdominal hernias. But late presentation and delayed diagnosis is associated with significant mortality and morbidity. Entrapment of an intestinal segment within the obturator orifice, most often the ileum, less frequently Meckel's diverticulum or omentum, can cause intestinal obstruction. Females are 6 - 9 times more likely than men to be subject to the pathology, mostly occurring in a multiparous, emaciated, elderly woman so it is also called "the little old lady's hernia. " Risk factors such as chronic constipation, chronic obstructive pulmonary disease, ascites, kyphoscoliosis, and multiparty, can predispose patients to herniation. Surgery is the only treatment. Prognosis depends mostly on early diagnosis and presentation. Here we are presenting a case of 80 years old female who presented to us with complaints of abdominal pain and vomiting associated with constipation since 3days.***

Keywords: obturator hernia, little old lady's hernia, small bowel obstruction, Howship rhomberg sign, obstructed hernia

1. Introduction

Anatomy

The obturator foramen is formed anteriorly and inferiorly by the rami of the ischium and pubis. It is closed by the obturator membrane, except for a small area, the obturator canal. Obturator canal bounded Superiorly and laterally by obturator groove of the pubis, Inferiorly Free edge of the obturator membrane and the internal and external obturator muscles. The obturator canal is the ring of the obturator hernia. It is a tunnel 2 to 3 cm long, which begins at the pelvis and passes obliquely downward to end outside the pelvis in the obturator area of the thigh. The obturator artery, vein, and nerve pass through the canal. If incarceration occurs, an incision should be made at the lower margin of the ring.

Obturator hernia is a pelvis hernia, although it accounts for only 1% of all abdominal wall hernias, obturator hernia has relatively higher morbidity and mortality (15 - 25%), mainly due to delayed diagnosis with infarcted bowel (60 - 75%). Right sided hernia is more common than left as left obturator foramen is covered with sigmoid colon.

A sign such as Howship Rombergi. epain over medial aspect of thigh and knee pain due to geniculate branch of obturator nerve passing through canal and Hannington - kiff are specific and should be associated with CT scan findings

2. Case Report

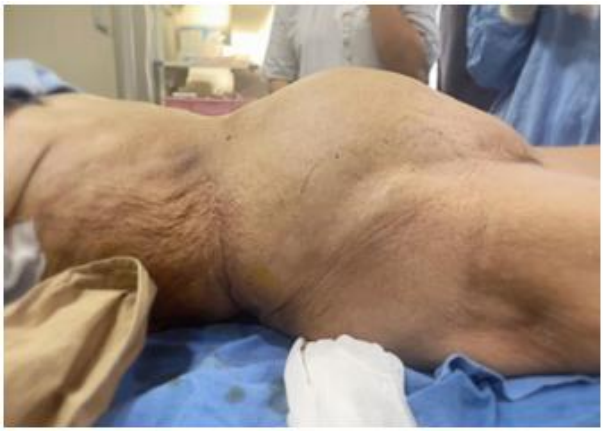
A 80 years old female patient presented to emergency General Surgery department of P. D. U. medical College with abdominal pain and vomiting associated with constipation since 3 days.

Patients was conscious, oriented and having tachycardia of 104 beat/min and Blood pressure of 110/72 mmHg. Abdominal pain was insidious in onset and rapidly Progressive, moderate to severe in intensity and located mainly over pelvic region, non radiating and non migrating, aggravated by taking meal and relieved on medication. Pain was associated with multiple episodes of vomiting, contents being undigested food particles and gastric fluid, non bilious and non projectile

There was no history of fever with chills, weight loss, anorexia, night sweats, blood in stool and black colour stool. No previous experience of similar complaints.

Abdominal examination revealed distended lower abdomen, umbilicus was displaced upwards, abdomen was soft, mild tenderness in left hypochondrium with no any signs of peritonial irritation. Hypertympanic note with hyperactive bowel sounds were noticed. All the hernial orifices were normal and having no cough impulse and digital rectal examination was unremarkable.

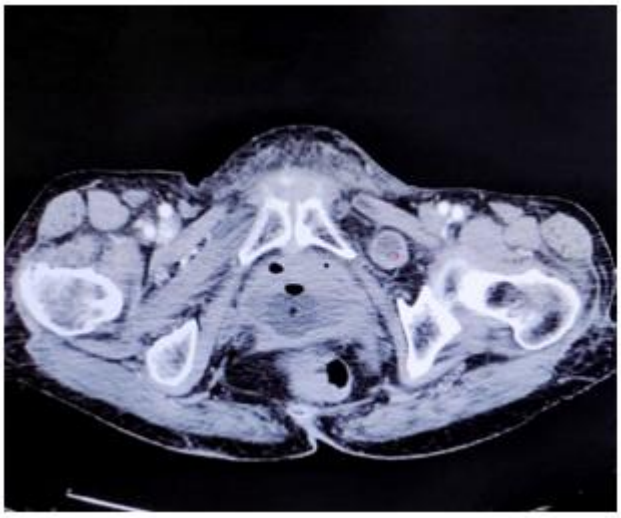
Nasogastric tube insertion showed bilious gastrointestinal content, basic laboratory Investigations were within normal limits, total counts being 6900/cumm with left shift (neutrophils 81%)

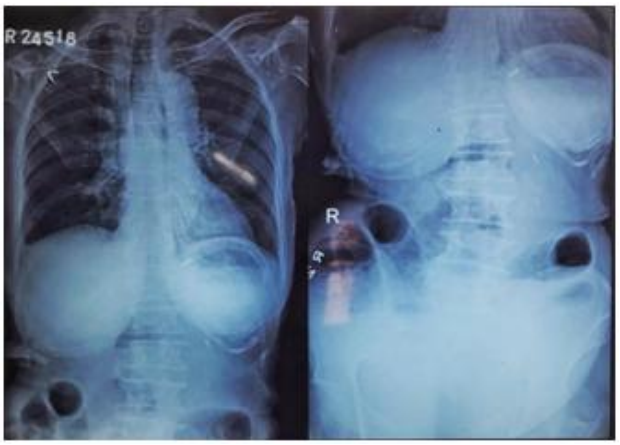


- Preoperative image showing distended lower abdomen

Plain abdominal xray showed dilated small bowel loops with air fluid levels

We Investigated patient with CECT abdomen and Pelvis which revealed left side obturator hernia with herniation of small bowel through wall defect of 13.5mm s/o small bowel obstruction.



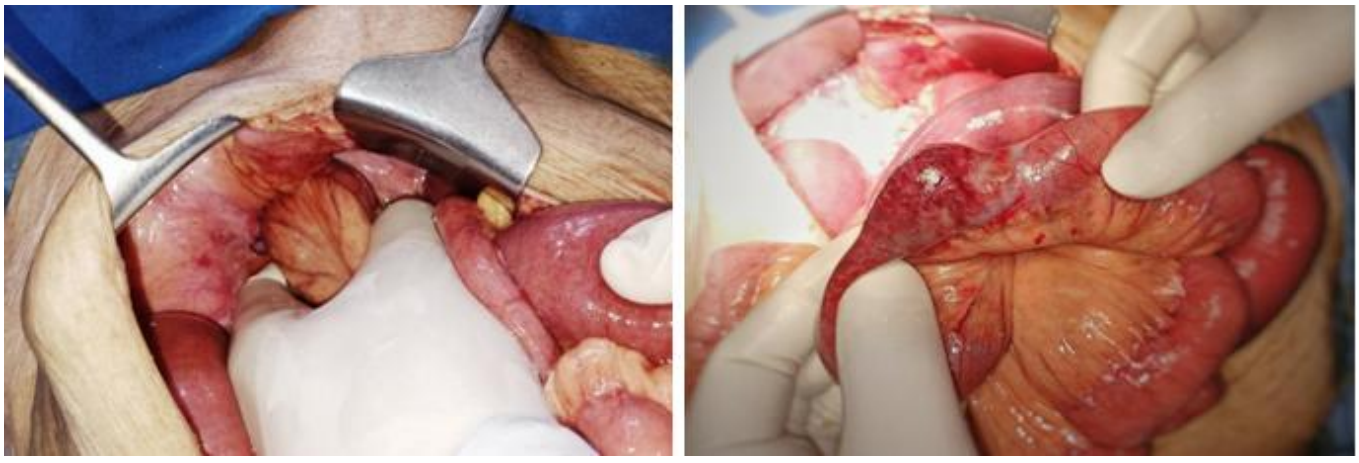


- Axial computed tomography scan showing a left - sided obturator hernia

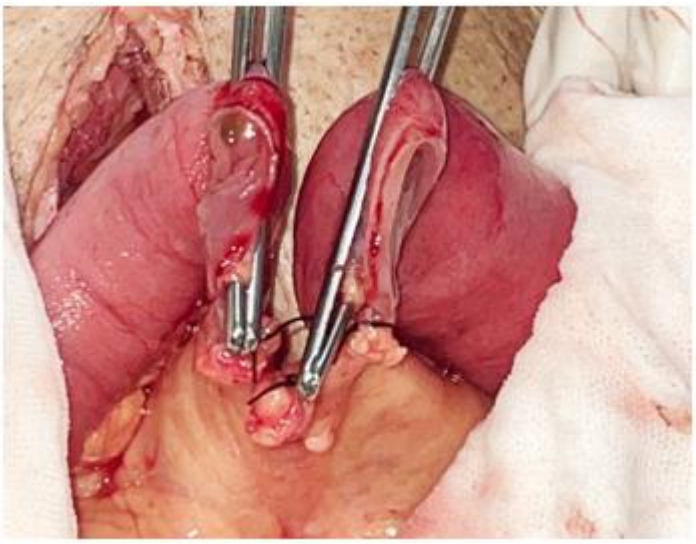
With the diagnosis of small bowel obstruction in obstructed obturator hernia, Patient was prepared and operated through lower midline laparotomy incision. Intraoperatively, there was herniated anti - mesenteric side of ileum about 100cm proximal to ileocecal junction through the left obturator foramen, it was reduced and orifice of the obturator canal was closed
The bowel proximal and distal to the hernia was normal. Upon reduction, the herniated loop was having constriction rings with compromised blood supply. Continous warm saline wash with 100% oxygenation was given for 5 minutes and again vascularity was checked. As vascularity was not regained, 10cm of ileal loop was resected and ileo - ileal anastomosis was done and laparotomy incision was closed in layers.

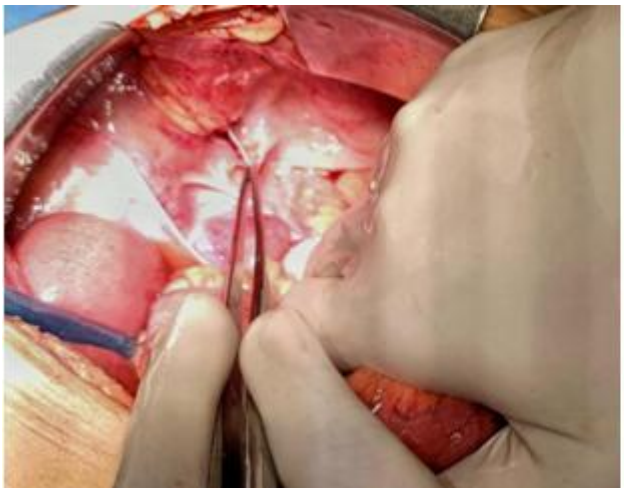
Subsequently, the patient showed a remarkable improvement with no post operative complications

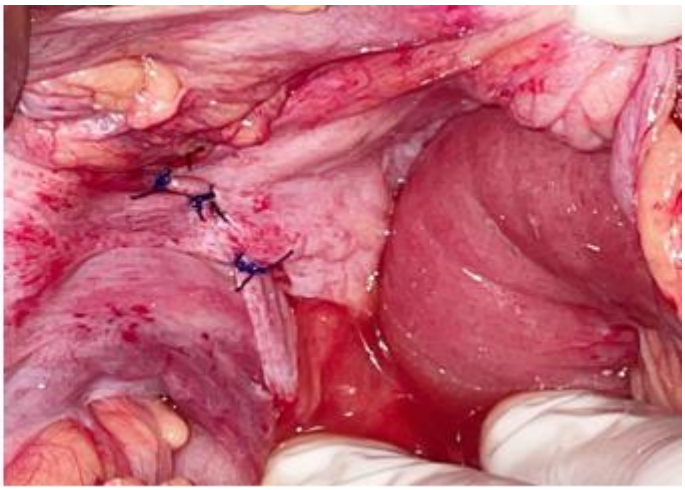
- Intraoperative image showing obstructed ileal loop in obturator foramen.



- Intra - operative image showing resection of involved ileal loop







Hernia defect seen after the reduction of the proximal ileal loop

3. Discussion

Obturator hernia is the protrusion of abdominal viscera through obturator canal in which the obturator nerve and vessels pass. This hernia is about six to nine times more common in women than men due to their broader triangular pelvis and greater transverse diameter. It affects women of around 70 - 90 years of age, the reason being attributed to atrophy of the preperitoneal fat around the obturator vessels in the canal thereby predisposing hernia formation and hence the name "little old woman's hernia'.

Obturator canal is an opening in the superolateral part of the obturator foramen containing the obturator nerve and vessels. It is 2 - 3 cm long and 1 cm wide, and is usually filled with fat, allowing no space for hernia. Loss of body fat and increase in intra - abdominal pressure are the major factors that lead to the development of hernia. Weakened pelvic floor with multiple pregnancy, older age and emaciation are contributing factors in our patient. The commonest content of the sac is ileum with about 50% being of the Richter's type

Diagnosis of obturator hernia at earliest is very difficult as it presents with non specific signs and symptoms like abdominal pain, distension, vomiting and constipation, can also have recurrent attacksof intestinal obstruction in the past. Use of CT scan leads to rapid diagnosis and commonest finding on CT is herniated small bowel loop in between pectineus and obturator externus muscle. Since the use of CT scan preoperative diagnosis rate of obturator hernias has been improved according to some reports.

Conflict of interest: Nil declared

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