Small Bowel Obstruction Secondary to Femoral Hernia

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ABSTRACT

Introduction: 2% to 4% of groin hernias are femoral hernias. They are more common in females. They usually present in emergency department when get strangulated and require emergency surgery. This presents with symptoms of bowel obstruction and usually surgical treatment with bowel resection-anastomosis is required. There are only few reports of strangulated femoral hernia.
Case report: We herein present a 68 year old lady who presented with a 3-day history of abdominal pain, nausea and vomiting. On examination, the patient had a generalized tenderness and distention with swelling of size 3×2cm over right side of groin. The working diagnosis at this time was a small bowel obstruction. Laparotomy was done and herniated contents small bowel reduced from swelling through opening occurring medial to femoral vessels and below the inguinal ligament. Hernia was repaired. The postoperative course was uneventful. The patient was followed up for 12-months without any complaints.
Conclusion: Obstructed femoral hernia is a rare cause of bowel obstruction. Surgeons should suspect this as one of the causes of acute bowel obstruction in emergency.

Keywords: Femoral Hernia, Small Bowel Obstruction, Strangulation.

INTRODUCTION

A femoral hernia is an extension of a viscous in the course of the femoral canal and exit via the saphenous opening due to a defect in the femoral ring. It is the third commonest hernia and 20% incidence in women versus 5% in men. This hernia is more common on the right side in multi-parous old women. The femoral ring is bordered anteriorly by the inguinal ligament, posteriorly by the iliopectineal ligament, medially by the lacunar ligament, and laterlly by the femoral vessels. The narrow femoral canal and rigid femoral ring are the main cause of bowel incarceration, strangulation and bowel resection which has been shown to have increased mortality and morbidity.[1,2] The clear cut etiology is not established due to lack of data in condition of congenital versus acquired hypothesis. The acquired theory is widely accepted which says that increased intra-abdominal pressure due to chronic bronchitis or constipation leads to stretching of the femoral ring.[3,4]
Most common clinical presentation is as a bulge in the groin. Colicky abdominal pain and vomiting may be present when there is incarceration and obstruction or strangulation of small bowel. On examination, the hernia can be recognized below and lateral to the pubic tubercle; which may be irreducible and tender.[3,5] A femoral hernia needs to be distinguished clinically from other groin lump for example inguinal hernia, saphenavaricocel, groin lymphadenopathy, lipoma, femoral artery aneurysm, and psoas muscle abscess.
Generally diagnosis is clinical; but, imaging techniques such as ultrasound, CT, MRI or diagnostic laparoscopy may be useful.[6] The protruded viscous gets strangulated and undergoes a tissue necrosis in the femoral hernias more frequently than other types of hernia.[7] Femoral hernias should be electively repaired as soon as possible. The golden standard operative managements to repair the hernia defect are using either the McEvedy operation or totally extraperitoneal approach (TEP) or the transabdominalpreperitonoeal approach (TAPP).[6] Femoral hernia is a rare cause of gastrointestinal obstruction with high risk of strangulation due to the narrow femoral canal and rigid femoral ring.[8] This report describes a case of a strangulated small bowel in right femoral canal hernia.

CASE REPORT

A 68-year old woman presented to our emergency department with abdominal pain, nausea and vomiting since 3 days prior to admission. On physical examination, she appeared to be ill, with diffuse abdominal distention; mild generalized tenderness with swelling of size 3×2 over right side of groin. there were no clinical signs of peritonitis. All laboratory tests were unrevealing. The case is presented clearly with abdominal radiograph images shows multiple gas fluid levels.
The patient underwent emergency laparotomy. Bowel was dilated and a loop of small bowel goes through opening medial to femoral vessels and below the inguinal ligament communicate with right groin lump. Right groin lump dissected and small bowel released from right femoral canal intra-abdominaly. Right femoral was closed by suturing the inguinal ligament to ilo-pectineal line by non absorbable sutures. The postoperative course was unremarkable, and the patient was doing well at a 3-month follow-up visit.

DISCUSSION

Femoral hernia is not common event. Rogers reported a review on 170 cases of femoral hernia and its complications.[5] Two study report bilateral femoral hernia.[8,9] Femoral hernia is acquired. This hernia could include: stomach, omentum, colon, small intestines (the partially strangulated small intestine wall called Richter's hernia), the appendix (De Garengeot hernia), urinary bladder, fallopian tube and ectopic testis.[10,11] The differential diagnosis of femoral hernia includes inguinal lymph nodes, direct and direct inguinal hernia, hydrocele of the cord or canal of Nuck, the greatest saphenous vein varices, femoral artery aneurysm, ectopic testis and psoas abscess.[10,11]
Obstructed or strangulated femoral hernia is a life threatening condition. Patients usually presents in emergency with a painful

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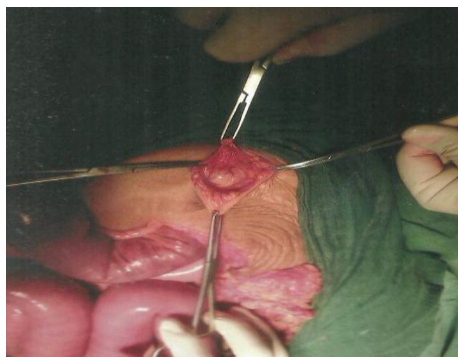

Figure-1: Right femoral hernia.

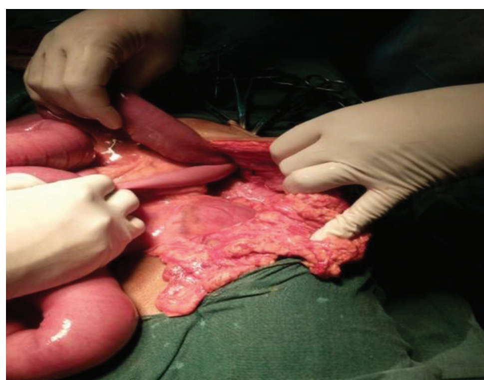

Figure-2: Bowel loop goes inside femoral opening.

bulge on the medial aspect of the thigh which may not be easy to palpate in overweight patients. The clinical symptoms are often vague and mainly depends on the type of contents which get strangulated in hernia sac. Particularly, in this case we applied a midline laparotomy incision as patient presented symptoms unique for the gastrointestinal obstruction. Midline incision was planned as it facilitates exploration of other causes of obstruction as well. One should suspect this as one of the causes of acute bowel obstruction in emergency.

Aged fragile patients especially with obstructed femoral hernias may present with unusual symptoms of abdominal pain, nausea, and vomiting. Therefore, careful clinical examination including methodical examination of both inguinal areas, complemented by correct radiological survey, is necessary in the diagnosis of hernias. Morbidity and mortality of the patient amplifies with delay in diagnosis and intervention. Hernias must forever be considered as an etiology if one presents with symptoms of abdominal tenderness or obstruction. There is increased incidence of mortality and morbidity in emergency surgeries. Thus repairing hernias in an elective situation is advocated rather than watchful waiting in patients with femoral hernias, even in those who are asymptomatic and stable.

In conclusion, strangulated/obstructed femoral hernia of the small bowel is rare and the general surgeon should be familiar with femoral hernia as one of the etiologies for bowel obstruction.

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