Case Report

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Small Bowel Obstruction Secondary to Femoral Hernia; Case Report and Review of the Literature

***Majid Akrami*[1], *Mohamamd Yasin Karami*[1*], *Vahid Zangouri*[1], *Iman Deilami*[1], *Mehrnoush Maalhagh*[2]**

[1]*Department of Surgery, Shiraz University of Medical Sciences, Shiraz, Iran*
[2]*Department of Ophthalmology, Shiraz University of Medical Sciences, Shiraz, Iran*

***Corresponding author:** *Mohammad Yasin Karami*
Address: Departement of Surgery, Faghihi Hospital, Shiraz University of Medical Sciences, Shiraz, Iran. **Tel:** +98-917-1800710; **Fax:** +98-71-32330724
e-mail: karamiy@gmail.com

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ABSTRACT

Femoral hernias account for 2% to 4% of groin hernias, are more common in women, and are more appropriate to present with strangulation and require emergency surgery. This condition may lead to symptoms of bowel obstruction or strangulation and possible bowel resection-anastomosis. To the best of our knowledge, there is few reports of strangulated femoral hernia. We herein present an 82-year-old lady who presented with a 5-day history of abdominal pain, nausea and vomiting. On examination, the patient had a generalized tenderness and distention. The working diagnosis at this time was a bowel obstruction. A computed tomography scan revealed the hernia occurring medial to the femoral vessels and below the inguinal ligament. Laparotomy was performed and patient was treated successfully with surgical therapy. Hernia was repaired and a small bowel resection was performed with end to end anastomosis. The postoperative course was uneventful, and the patient was doing well at a 12-month follow-up visit. Obstructing femoral hernia of the small bowel is rare and the physician should suspect femoral hernia as a bowel obstruction cause.

Keywords: Femoral hernia; Small bowel Obstruction; Strangulation.

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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 twenty percent happening in women versus 5% in men. This hernia is more common on the right side of 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 laterally 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 etiology is a controversial topic due to lack of data in condition of congenital versus acquired hypothesis.

The acquired theory is widely accepted with a general clarification of increased intra-abdominal pressure from chronic bronchitis and constipation leading to stretching of the femoral ring from a dilated femoral vein [3,4]. Clinical manifestation possibly the sensation of a bulge in the groin. Colicky abdominal pain and vomiting may persevere due to incarceration and obstruction or strangulation of small bowel. On examination, the hernia can be recognized below and lateral to the pubic tubercle; it may be generally irreducible and may be tender [3,5]. A femoral hernia needs to be distinguished clinically from other groin lump for example inguinal hernia, saphena varicocel, groin lymphadenopathy, lipoma, femoral artery aneurysm, and psoas muscle abscess. Generally diagnosis is clinically; but, imaging techniques such as ultrasound, CT, MRI or diagnostic laparoscopy [6] may be useful. The protruded viscous is strangulated and undergoes a tissue necrosis in the femoral hernias more than other types of hernia [7]. When diagnosed, femoral hernias should be electively repaired as soon as possible. The golden standard operative management to repair the defect are using either the McEvedy operation or totally extraperitoneal approach (TEP) or the transabdominal preperitonoeal approach (TAPP). Femoral hernia is a rare cause of gastrointestinal obstruction and is at high risk of strangulation due to the narrow femoral canal and femoral ring [8]. This report describes a case of a strangulated small bowel in right femoral canal hernia.

Case Presentation

An 82-year-old woman presented to our emergency department with abdominal pain, nausea and vomiting since 5 days prior to admission. On physical examination, she appeared to be ill, with diffuse abdominal distention; mild generalized tenderness, there were no clinical signs of peritonitis. All laboratory tests were unrevealing. The case is presented clearly with a coronal computed tomography (CT) and abdominal radiograph images (Figure 1). A hernia occurring medial to the femoral vessels and below the inguinal ligament was consistent with a femoral hernia. The patient underwent emergency laparotomy for resection of obstructed bowel loop and repair of the femoral hernia. There was incarceration of small bowel (short segment) about 100 cm to ileocecal valve in right femoral canal with necrosis and some degree of inflammation. There was fluid field, distended small bowel loop proximal to site of incarceration. Strangulated small bowel in right femoral canal was released and then femoral canal defect was repair via intra-abdominal approach with PDS sutures and figure of eight manner. The postoperative course was unremarkable, and the patient was doing well at a 12-month follow-up visit.

Discussion

Strangulated femoral hernia is not common event. Rogers [5] reported a review on 170 cases of strangulated femoral hernia and its complications. Two study report strangulated 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 [10-14]. The differential diagnosis of femoral hernia includes inguinal lymph nodes, direct and indirect inguinal hernia, hydrocele of the cord or canal of Nuck, the greatest saphenous vein varices, femoral artery aneurysm, ectopic testis and psoas abscess [10,14].

Strangulation of femoral hernia is seriously life threatening event. The most important symptom is typically a painful bulge, placed on the medial

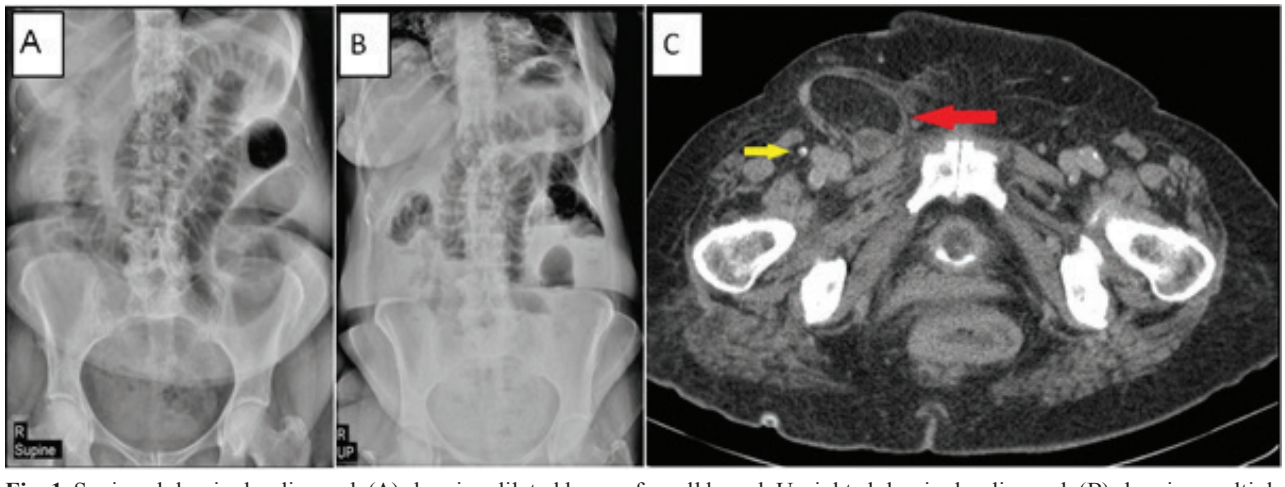

Fig. 1. Supine abdominal radiograph (A) showing dilated loops of small bowel. Upright abdominal radiograph (B) showing multiple air-fluid levels in dilated small bowel, and air-fluid level in the stomach. CT of the abdomen (C), which was performed on admission, showing a fluid-containing structure in the Right groin, medial to the femoral vein and artery (Red arrow). The sac contains a small amount of extra luminal fluid and a loop of thickened, enhancing small bowel. Femoral artery and vein (medial to artery) is shown by yellow arrow.

aspect of the thigh, regularly not easy to palpate in overweight patients. The clinical symptoms are often vague and mainly reliant on the contents of the hernia sac. In the clinical case mentioned above, the patient presented symptoms unique for the gastrointestinal obstruction (constipation and obstipation). Particularly. In the presented case we applied a midline laparotomy incision due to unknown symptoms source. However, throughout this entrée resection of the ischemic intestine segment is not difficult to perform. Moreover, exploration of other cause is possible in this way. This case report strangulated femoral hernia reinforces the value of femoral hernia because of their high risk of incarceration and strangulation. One should be watchful in patients presenting with intestinal symptoms, particularly in case of evocative of bowel obstruction.

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 these hernias. Any delay or breakdown to accomplish this diagnosis would result in an appreciably amplified risk of morbidity and mortality for the patient. Hernias must forever be considered as a source if one presents with symptoms of abdominal tenderness or obstruction. The morbidity and mortality raise appreciably in patients undergoing emergent surgery. This highlights the consequence of repairing hernias in an elective situation and suggests that watchful waiting is not a practical approach in patients with femoral hernias, even those who are asymptomatic and stable.

In conclusion, strangulated femoral hernia of the small bowel is rare and the general surgeon should be familiar with femoral hernia as a bowel obstruction source.

Conflict of Interest: None declared.

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