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Case Report

An inguinal surprise: strangulated femoral hernia

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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. There are few reports of strangulated femoral hernia. Femoral hernias, often, are usually delegated to a secondary differential or if even rarer not considered at all during dubious presentations as groin swellings which are irreducible without the classical features which have usually been described in our surgical literatures, Inguinal being forefront for diagnosis. We herein present a 45-year-old female had come to the outpatient department at MVJ MC and RH with the complaints of swelling in the left groin for 5 years and pain for 8 days sudden onset with irreducibility, with no features of small bowel obstruction. She was diagnosed as having a left side obstructed inguinal hernia after appropriate radiological investigations and underwent inguinal exploration. Intraoperative diagnosis of left sided strangulated femoral hernia with omentum as its content was made. Omentectomy with herniorrhaphy was done and post-operative period was uneventful, and patient was discharged with regular follow up. Femoral hernias are more common in women and lead to a substantial over risk for an emergency operation, and consequently, a higher rate of bowel resection and mortality. Femoral hernias should be operated with high priority to avoid incarceration and be repaired with a mesh.

Keywords: Femoral hernia, Strangulated, Emergency surgery

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. 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 main cause of bowel incarceration, strangulation and bowel resection which has been shown to have increased mortality and morbidity.[1,2]

The aetiology 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]

On occasion, some femoral hernias will present over the inguinal canal. In this case, the femoral hernia sac still exits inferior to the inguinal ligament through the femoral canal but ascends in a cephalad direction.[5]

CASE REPORT

In our case, a 45-year-old female patient presented to the Outpatient department of MVJ medical college and research hospital with the complaints of swelling in the left groin for 5 years and pain along with irreducibility for 8 days. A swelling was noted along the left groin

crease which was irreducible and showed no cough impulse. Relation to pubic tubercle and inguinal ligament was suggestive of inguinal origin.

An ultrasound imaging showed it to be a strangulated hernia with omentum as its content of inguinal origin, relation to femoral vessels could not indicate it to be of femoral origin.

An inguinal exploration was planned on emergency basis and an indeterminate incision was made above swelling keeping in mind differential diagnosis of inguinal/femoral hernia Intraoperatively the sac was found inferior to the inguinal ligament with a narrow neck medial to femoral vessels confirming the diagnosis of a strangulated femoral hernia (Figure 1). Sac was opened and content was confirmed to be gangrenous omentum and a decision to perform low Lockwood approach was taken. Omentectomy done with excision of sac. Herniorrhaphy was performed by approximating the inguinal and Cooper's ligament medial to femoral vein (Figure 2 and 3) hemostasis achieved and skin was closed.

Post-operative period was uneventful, and patient was discharged and followed up regularly and had no complications.

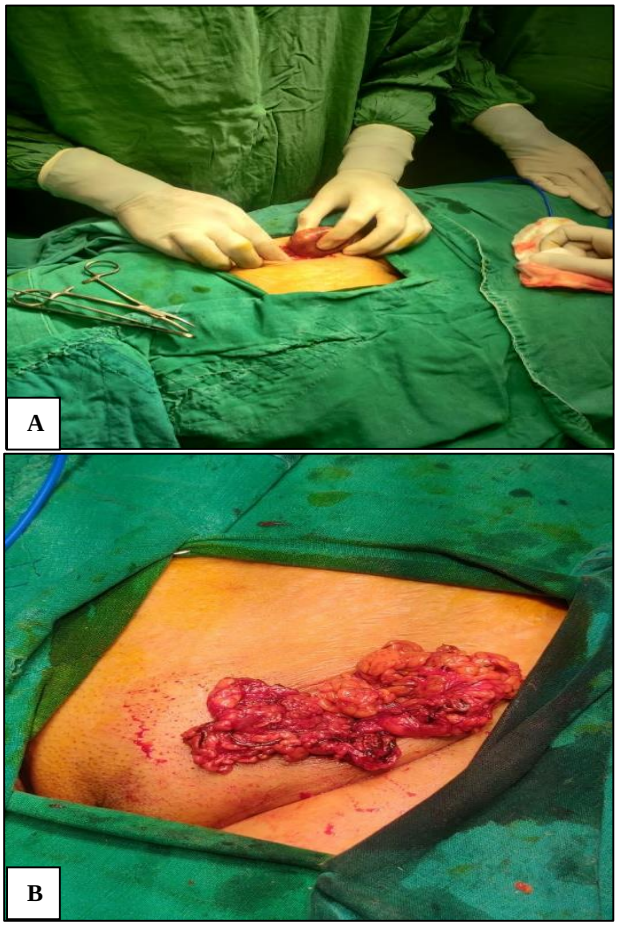

Figure 1 (A and B): Hernial sac and contents of sac after opening of sac. Necrotic Omentum noted.

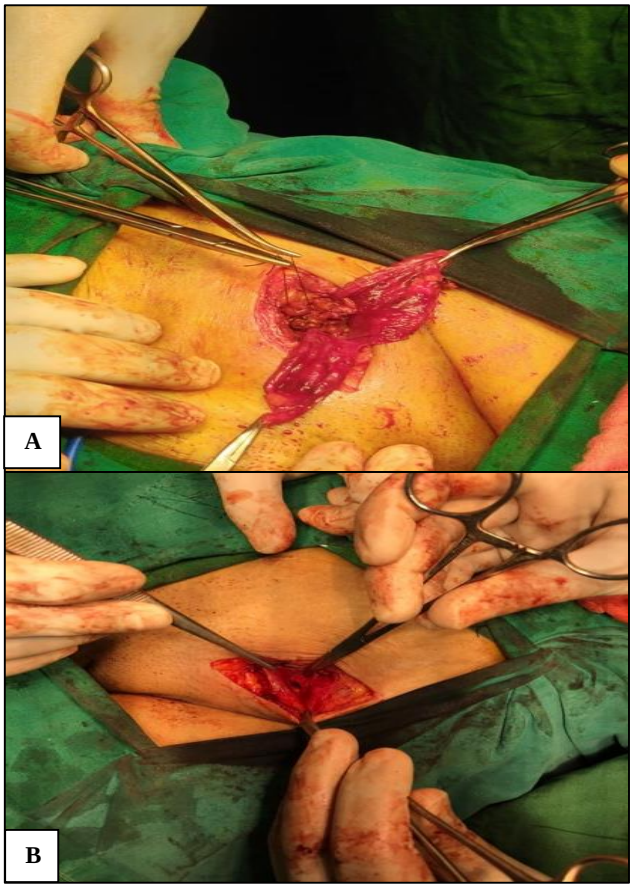

Figure 2 (A and B): Post partial omentectomy showing sac divided and neck of hernial sac noted.

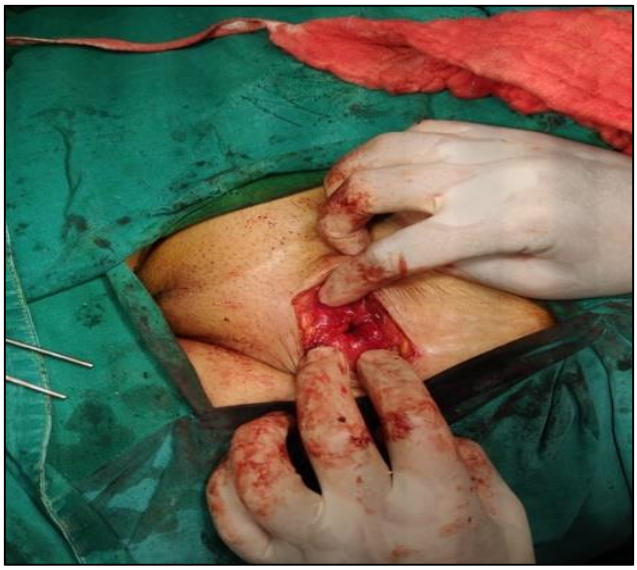

Figure 3: Femoral ring visualized post content reduction and hernial sac excision

DISCUSSION

A femoral hernia occurs through the femoral canal, which is bounded superiorly by the inguinal ligament, inferiorly by Cooper ligament, laterally by the femoral vein, and

medially by the Lacunar ligament. A femoral hernia produces a mass or bulge below the inguinal ligament.[5]

On occasion, some femoral hernias will present over the inguinal canal. In this case, the femoral hernia sac still exits inferior to the inguinal ligament through the femoral canal but ascends in a cephalad direction.[5]

The diagnosis of a femoral hernia is usually clinical. Most patients present as an emergency with symptoms and signs of intestinal obstruction. A typical femoral hernia presents as a tender, nonreducible swelling with no cough impulse and is situated below and lateral to the pubic tubercle. On exploration, it often contains only omentum, or may contain a knuckle of bowel known as Richter's hernia. The differential diagnoses include inguinal hernia, lipoma, saphena varix, enlarged lymph nodes, femoral artery aneurysm, sarcoma, obturator hernia, psoas abscess, psoas bursa, and in males, ectopic testis.[6]

A femoral hernia can be repaired by the standard Cooper ligament repair, a preperitoneal approach, or a laparoscopic approach. The essential elements of femoral hernia repair include dissection and reduction of the hernia sac and obliteration of the defect in the femoral canal, either by approximation of the iliopubic tract to Cooper ligament or by placement of prosthetic mesh to obliterate the defect. The incidence of strangulation in femoral hernias is high; therefore, all femoral hernias should be repaired, and incarcerated femoral hernias should have the hernia sac contents examined for viability. In patients with a compromised bowel, the Cooper ligament approach is the preferred technique because mesh is contraindicated.[5]

A small prosthetic plug can then be inserted into the empty space previously occupied by the femoral hernia and sutured to Cooper ligament posterior, the lacunar ligament medially, and the inguinal ligament superiorly using an absorbable suture. No suture fixation is placed medially near the femoral vein.[5]

In our case the femoral hernia had presented as a strangulated hernia at the inguinal region increasing the dilemma of its origin. However, with intraoperative vigilance and a keen eye this hernia was correctly identified and dealt with.

CONCLUSION

Strangulated femoral hernia is not a common event. Rogers reported a review on 170 cases of strangulated femoral hernia and its complications in which he quoted "The clinical signs and symptoms are less dramatic and severe when the strangulation does not involve bowel". Thus, it is always imperative that a surgeon remains well acquainted with all differentials to prevent any misshapen in the operative management of the same. We present a rare case of a left sided strangulated femoral hernia with gangrenous omentum as its contents, and which has presented with dubious clinical presentation masquerading as a left sided strangulated inguinal hernia. However, with on table vigilance and a keen eye the diagnosis was confirmed and handled appropriately. This case report would serve as a reminder to all surgeons to keep an open and cool minded approach to each and every case, hernia and otherwise, he/she would operate in their lifetime.

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