

**THE HIDDEN DANGER IN THE GROIN: A CASE OF STRANGULATED FEMORAL
HERNIA****¹Dr. Parthasarathi Hota, ²Dr. Dishant Aagaal, ³Dr. Shubham Gupta**¹Associate Professor, Department of General Surgery, Ananta Institute of Medical Sciences, Udaipur, Rajasthan, India.²Senior Resident, Department of General Surgery, Ananta Institute of Medical Sciences.³Junior Resident, Department of General Surgery Ananta Institute of Medical Sciences.***Corresponding Author: Dr. Parthasarathi Hota**Associate Professor, Department of General Surgery, Ananta Institute of Medical Sciences, Udaipur, Rajasthan, India. DOI: <https://doi.org/10.5281/zenodo.23802802>**How to cite this Article:** ¹Dr. Parthasarathi Hota, ²Dr. Dishant Aagaal, ³Dr. Shubham Gupta. (2026). The Hidden Danger In The Groin: A Case of Strangulated Femoral Hernia. European Journal of Pharmaceutical and Medical Research, 13(11), 328–331.

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ABSTRACT

Femoral hernias are uncommon among groin hernias but carry a high risk of incarceration and strangulation because of the narrow, rigid femoral ring. They are often mistaken for other groin swellings, and omentum alone as the hernial content is a less frequently described finding. Here we present a 42-year-old woman who presented with a right groin swelling of six months' duration with on and off episodes of pain and persistent mild pain for three days. The swelling was non-reducible and tender, measured 3 x 6 cm and had a negative cough impulse. There was no history of vomiting, fever or trauma, and she was haemodynamically stable. Ultrasonography suggesting a femoral hernia with possible vascular compromise. Emergency surgery was performed under general anaesthesia by a modified McEvedy approach. A long-standing non-reducible groin swelling in a woman with a negative cough impulse should raise suspicion of a strangulated femoral hernia, and early ultrasonography followed by prompt surgery is essential.

KEYWORDS: Femoral hernia, strangulated hernia, omentum, McEvedy repair, groin swelling.**INTRODUCTION**

Femoral hernias account for only a small proportion of groin hernias (roughly 2-4%), but they are much more common in women and are responsible for a disproportionate share of emergency hernia presentations.^[1,2] The femoral ring is bounded by rigid structures, namely the inguinal ligament anteriorly, the pectineal ligament posteriorly, the lacunar ligament medially and the femoral vein laterally, so the contents are prone to obstruction and strangulation.^[3] Because the swelling is often small and the symptoms vague, the diagnosis is frequently delayed or missed.^[4] We present a case of strangulated right femoral hernia with omentum as the sole content, which had been present for six months, in a 42-year-old woman, and discuss the diagnostic features and the choice of repair.

CASE REPORT

A 42-year-old woman was admitted with a swelling in the right groin of six months' duration. The swelling was

initially small and increased gradually in size. During this period she had on and off episodes of pain at the site. For three days before admission she had persistent mild pain over the swelling. There was no history of vomiting, fever or trauma. The patient was vitally stable. Local examination of the right groin showed a swelling measuring 3 x 6 cm. It was non-reducible and tender, with no local rise of temperature and a negative cough impulse.

Routine blood investigations were sent before surgery. Ultrasonography of the whole abdomen (Figures 1 and 2) showed an approximately 16 mm defect in the inferior aspect of the right inguinal region through which omentum and peritoneal fluid had herniated. The herniated fat showed inflammatory changes, and the herniated content lay medial to the common femoral vein. The radiologist's impression was a femoral hernia with possible vascular compromise. Minimal free fluid was seen in the peritoneal cavity. A diagnosis of

strangulated right femoral hernia was made. Differential diagnoses considered were inguinal hernia, hydrocele of

the canal of Nuck, inguinal lymphadenopathy and saphena varix.

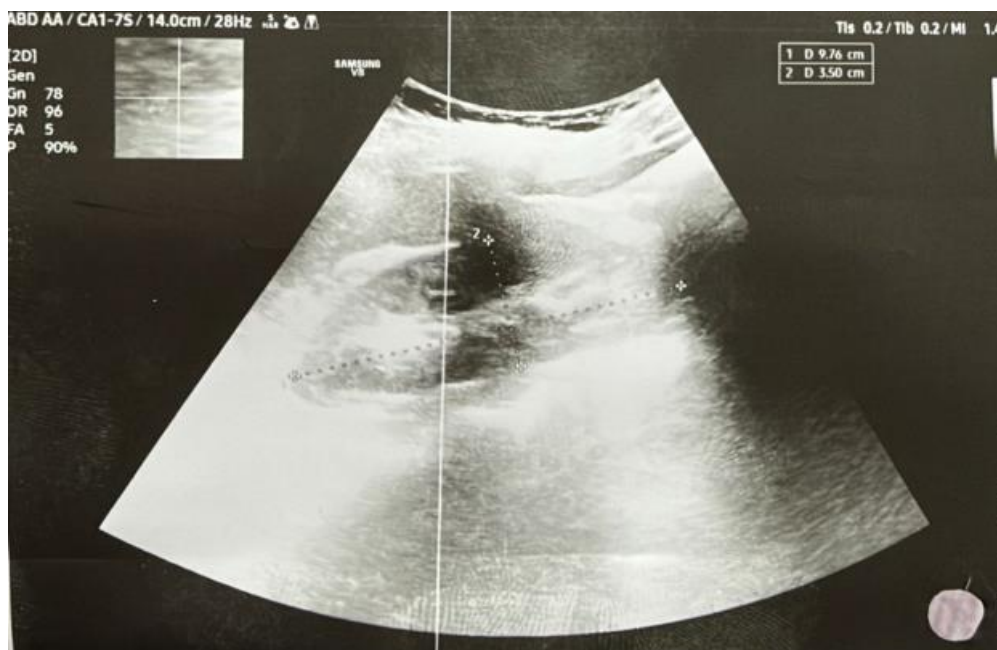


Figure 1: Pre-operative ultrasonography image.



Figure 2: Pre-operative ultrasonography image.

Because of the non-reducible, tender swelling and the USG suggestion of vascular compromise, the patient was taken up for emergency surgery on the day of admission. Preoperatively she received injection cefuroxime 1.5 gm, injection pantoprazole 40 mg, tetanus toxoid 0.5 ml and intravenous fluids. Under general anaesthesia, a modified McEvedy femoral hernia repair was performed. In modified McEvedy approach, a transverse incision given in the suprapubic region on side of hernia instead of longitudinal paramedian incision as described in the original McEvedy procedure. A defect was identified in

the right femoral canal with omentum herniating through it. The hernial sac seen protruding through femoral ring into the thigh with omentum alone was the content. The omentum was adherent with the sac and was reduced gently with the finger manipulation both intra & extra-peritoneally. The reduced omentum was seen to be devitalized with patchy gangrenous changes. Partial omentectomy was then performed. The defect was repaired by suturing with Polypropylene 2-0. No mesh was used.



Figure 3: Intra-operative picture showing femoral ring bounded above by the inguinal ligament & below by the pectineal ligament. The instrument is seen passing through the ring.



Figure 4: Intra-operative picture showing femoral ring closed by approximating inguinal & pectineal ligaments with polypropylene suture.

Postoperative recovery was uneventful. Discharged on 4th postoperative day.

DISCUSSION

Femoral hernia is the least common of the groin hernias in most series but has the highest risk of complications.^[4,5] Emergency presentation with obstruction or strangulation is common, and a substantial proportion of patients present urgently as their first contact with healthcare.^[2,6,7] The narrow femoral ring, bounded on all sides by unyielding ligamentous and vascular structures, explains why even a small sac or small amount of content can become obstructed. In our patient the content was omentum alone, so there were no

features of intestinal obstruction (no vomiting, distension or constipation), which can falsely reassure the clinician.

A cough impulse is usually present in a reducible hernia, but it is typically lost once the contents become adherent or the neck is occluded, as in this patient. A non-reducible, tender groin swelling with a negative cough impulse in a woman should therefore raise the suspicion of an obstructed or strangulated femoral hernia. The main differentials are inguinal hernia, saphena varix, inguinal lymphadenopathy, femoral artery aneurysm, psoas abscess and, in women, a hydrocele of the canal of Nuck.^[4,5]

Ultrasonography is a quick and useful adjunct when the clinical diagnosis is uncertain: here it identified the defect, its position medial to the common femoral vein, the omental content and inflammatory change in the herniated fat, and this supported the decision for emergency operation. Free fluid in the hernial sac, as seen here, is one of the sonographic signs described for incarcerated hernias.^[8]

Femoral hernias may be approached by the low (Lockwood), inguinal (Lotheissen) or high (McEvedy) route.^[5] The high extraperitoneal approach described by McEvedy gives good access to the femoral ring from above, which allows safe reduction of the contents, inspection of bowel viability and resection if needed, and it is generally preferred for obstructed and strangulated hernias.^[3,9] In McEvedy's original description, the femoral ring is reached through a vertical pararectal incision placed over the lateral border of the rectus sheath. The rectus muscle is retracted medially and the extraperitoneal space is entered, so that the neck of the hernia is exposed from above the inguinal ligament.^[9] This gives direct control of the femoral ring, allows the contents to be freed and withdrawn under vision, and makes it possible to extend the exposure or open the peritoneum if bowel has to be inspected or resected. The main drawback of the vertical incision is that it weakens the abdominal wall musculature, which can predispose to a direct inguinal hernia, and a modification using a skin crease incision instead of the vertical incision has been described.^[10] Another proposal is a single skin incision about 1 cm above the medial half of the inguinal ligament, which allows the low, trans-inguinal and high approaches to be used as the operative findings dictate, so that the incision does not have to be changed if compromised bowel is found.^[11] The femoral ring is classically closed by approximating the inguinal ligament to the pectineal ligament, taking care not to compress the femoral vein.^[3,5] In our patient a modified McEvedy approach was used with a transverse suprapubic incision which allowed safe release of dense adhesions between the omentum and the defect. Omentectomy was performed for the strangulated omentum. Mesh repair is widely used in elective femoral hernia repair, but in the emergency setting with inflammatory change, tissue repair without mesh is a reasonable option, particularly when contamination is a concern.^[1,10] We closed the defect with Polypropylene 2-0 sutures.

The learning points from this case are: (1) a non-reducible groin swelling of long duration may be a strangulated femoral hernia even in the absence of vomiting or fever; (2) a negative cough impulse does not exclude a hernia; (3) omentum alone can be the content of a strangulated femoral hernia, and omentectomy may be needed; and (4) early imaging and prompt surgery are essential once strangulation is suspected.

CONCLUSION

Strangulated femoral hernia may present with a long-standing, non-reducible groin swelling and without systemic features, particularly when omentum is the only content. A high index of suspicion, ultrasonographic confirmation and early surgery using a modified McEvedy approach gave an uneventful recovery in this patient.

Conflict of interest: None.

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