



A RARE CASE OF STRANGULATED FEMORAL HERNIA IN AN ELDERLY MALE PATIENT

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ABSTRACT

Femoral hernias account for a small fraction of all groin hernias and are overwhelmingly more common in females. Their presentation in elderly males is exceedingly rare. Due to the rigid anatomical boundaries of the femoral ring, these hernias carry a notoriously high risk of incarceration and strangulation. We present the case of an 85-year-old male with no known comorbidities who presented with a left-sided groin swelling and abdominal pain of 10 days' duration. The swelling, initially reducible, became irreducible and was followed by vomiting, reduced appetite, and obstipation for 6 days. After initial conservative management at an outside hospital failed and the patient's condition deteriorated, he was referred to our centre. Ultrasonography revealed a left inguinal hernia with no vascularity of the loops indicating an irreducible inguinal hernia. Contrary to the clinical suspicion of strangulated inguinal hernia when emergency surgical exploration was performed, a strangulated femoral hernia was found and was successfully managed. This case emphasizes the critical need for early clinical suspicion, prompt radiological imaging, and urgent surgical intervention to prevent catastrophic ischemic complications in elderly male patients presenting with groin swellings.

KEYWORDS : Strangulated femoral hernia, Elderly male, Bowel obstruction, Emergency surgery, Incarcerated hernia

INTRODUCTION

Groin hernias represent one of the most common surgical pathologies globally, yet femoral hernias remain relatively uncommon, comprising only 2% to 4% of all groin hernia presentations.[1] They originate through the femoral canal, positioned inferior to the inguinal ligament. Anatomically, the female pelvis is broader, making femoral hernias significantly more prevalent in multiparous women.[1]. In contrast, femoral hernias are rare in males and are often overlooked in the differential diagnosis of groin swellings [2,3]

Despite their low incidence, femoral hernias are of clinical significance due to their exceptionally high rate of complications like obstruction and strangulation. The femoral ring is bounded by rigid, unyielding structures—the inguinal ligament anteriorly, the pectineal (Cooper's) ligament posteriorly, the lacunar ligament medially, and the femoral vein laterally—creating a narrow space that predisposes herniated contents to vascular compromise [1]. In many instances, the first clinical presentation of a femoral hernia is a surgical emergency involving acute bowel obstruction, ischemia, or gangrene.[1,4]

Femoral hernias occurring in elderly patients are often associated with significant morbidity and mortality when diagnosis and treatment are delayed.[1,4] Diagnosis may be particularly challenging in male patients because femoral hernias are uncommon and may mimic the more frequently encountered inguinal hernias. [2,3] Early recognition and prompt surgical intervention are therefore essential to prevent serious complications.

We report a rare case of a strangulated left-sided femoral hernia in an 85-year-old male who presented with a 10-day history of progressive abdominal pain and groin swelling, developing acute intestinal obstruction. The patient was successfully managed with emergency surgical exploration, a conversion to midline laparotomy for segmental bowel resection with primary anastomosis, and an uneventful postoperative recovery.

Case Report

An 85-year-old male patient with no known known comorbidities presented to the surgical emergency department with a primary complaint of abdominal pain and

a swelling in the left groin region for the past 10 days. The patient reported that the groin swelling was initially reducible but became completely irreducible over the course of the illness.

This was accompanied by worsening systemic symptoms, including 2 to 3 episodes of vomiting per day for the last 6 days, a significantly reduced appetite for 6 days, and an inability to pass stool or flatus (obstipation) for 6 days. The patient had initially sought treatment at an outside hospital where conservative management was administered. However, due to progressive clinical deterioration and worsening symptoms of intestinal obstruction, he was referred to our centre for further management.

On examination, the patient appeared dehydrated and toxic. Vitals revealed tachycardia (pulse rate 110 bpm) and normal blood pressure. Abdominal examination demonstrated a distended abdomen with sluggish bowel sounds. Local examination of the left groin revealed 4x3 cm tense, tender, irreducible swelling with overlying erythema and absent cough impulse. Laboratory investigations revealed leucocytosis and electrolyte imbalances secondary to repeated vomiting.

Radiological Findings The ultrasonography (USG) of the abdomen and groin reported a left-sided inguinal hernia containing bowel loops with an absence of internal vascularity, leading to a preoperative radiological diagnosis of a strangulated inguinal hernia.

Operative Findings Following rapid intravenous fluid resuscitation and medical optimization, the patient was taken for emergency surgical exploration under general anaesthesia. An initial left groin incision was made. Intraoperatively, upon dissection, the swelling was found to arise from below the inguinal ligament, with a tight constriction ring at the femoral canal strangulating a loop of the small bowel. This confirmed a strangulated femoral hernia, contrary to the initial suspicion of an inguinal hernia.

Given the gangrenous nature of the entrapped bowel and the need for adequate exposure, the surgical decision was made to convert to a midline laparotomy. The strangulated bowel segment was formally resected, and primary end-to-end

bowel anastomosis was performed.

Postoperative Course The patient had an uneventful postoperative recovery. He was managed with intravenous fluids, broad-spectrum antibiotics, and supportive care. Bowel function returned on postoperative day 3, at which point oral feeds were gradually introduced and well-tolerated. The patient showed satisfactory clinical improvement and was discharged in stable condition with advice for regular surgical follow-up.



FIGURE 1. Clinical picture showing Left groin swelling



FIGURE 2 : clinical picture of the abdomen showing distention and the swelling

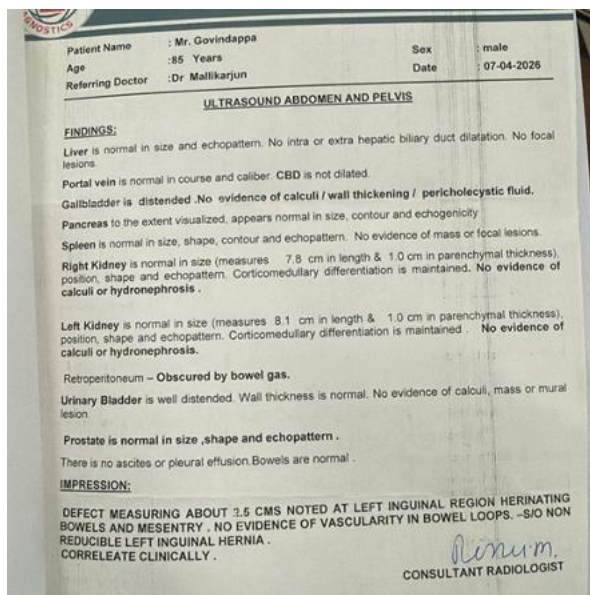


FIGURE 3: Ultrasound report of the abdomen and pelvis showing Irreducible left inguinal hernia



FIGURE 4. Intraoperative picture showing the origin of the swelling below the inguinal ligament

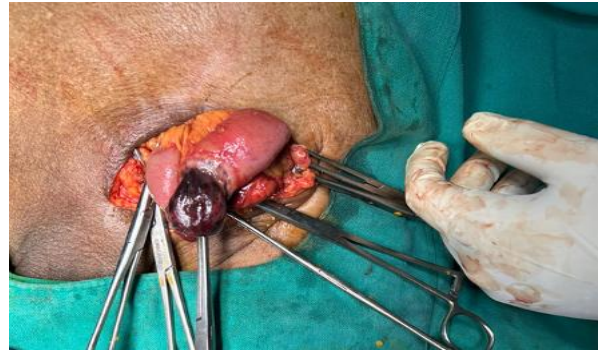


FIGURE 5. Intra operative picture showing the strangulated portion of bowel



FIGURE 6. Intra operative photograph showing the anastomosis of the resected portion of the bowel with sutures

DISCUSSION

Femoral hernias are uncommon groin hernias, accounting for approximately 2–4% of all groin hernias, and are significantly less frequent in males compared to females.[1] The rarity of femoral hernias in male patients contributes to diagnostic difficulty and may result in delayed recognition, particularly when presenting as groin swellings. Previous case reports have emphasized that femoral hernias in males are unusual clinical entities and require a high index of suspicion for accurate diagnosis. [2,3] In our patient, this clinical ambiguity was further compounded by an initial ultrasonography (USG) report that misidentified the pathology as a strangulated inguinal hernia.

The clinical importance of femoral hernias lies in their strong tendency toward incarceration and strangulation. This is attributed to the rigid and narrow boundaries of the femoral canal, including the inguinal ligament anteriorly, lacunar ligament medially, pectineal ligament posteriorly, and femoral vein laterally.[1] These anatomical constraints predispose herniated bowel loops to rapid vascular

compromise. A national registry-based study has shown that femoral hernias are more likely to present as emergencies compared to other groin hernias, often requiring urgent surgical intervention.[4] In the present case, the patient presented with progressive groin swelling, abdominal pain, vomiting, and obstipation, consistent with progression from incarceration to strangulation.

Diagnosis of femoral hernia can be challenging, especially in male patients where inguinal hernia is often the initial clinical consideration. While clinical examination remains the cornerstone of diagnosis, imaging plays an important adjunct role. Ultrasonography is commonly used as a first-line investigation but may have limitations in differentiating femoral from inguinal hernias, particularly in emergency settings or when anatomical visualization is suboptimal.[5] Computed tomography (CT) is useful in identifying the hernia sac in relation to femoral vessels and assessing complications such as bowel obstruction or ischemia.[5] However, clinical signs of strangulation should take priority, and surgical management should not be delayed for imaging once the diagnosis is strongly suspected.

The surgical approach to a strangulated femoral hernia must achieve three essential goals: safe release of the constricting femoral ring, thorough assessment and management of the compromised bowel, and a durable repair of the anatomical defect. While low infra-inguinal approaches are suitable for elective or uncomplicated repairs, they provide inadequate exposure when bowel gangrene is suspected. In this case, upon identifying a tight constriction ring at the femoral canal containing non-viable bowel, the decision to proceed with a midline laparotomy was crucial. This approach provided optimal exposure, allowing for a safe, controlled segmental bowel resection and a primary end-to-end anastomosis.

The choice of hernia repair technique in emergency settings depends on the presence of contamination. In clean-contaminated or contaminated fields, many surgeons prefer tissue-based repair techniques due to concerns regarding infection risk associated with prosthetic mesh placement.[6] Accordingly, a non-mesh repair was performed in this case to minimize the risk of postoperative infection while ensuring adequate closure of the femoral defect.

Postoperative recovery in these vulnerable, geriatric patients depends heavily on minimizing the time from strangulation to surgical release. Despite the patient's advanced age of 85 years and a prolonged 10-day history of illness, early surgical intervention following transfer to our center drastically improved his outcome. The patient experienced an uneventful postoperative recovery with a return of bowel function by day 3, highlighting that prompt, decisive surgical management can avert catastrophic ischemic complications and yield favourable clinical outcomes.

CONCLUSION

Strangulated femoral hernias in elderly males represent an uncommon but high-risk surgical emergency. The rigid anatomy of the femoral canal leads to a rapid progression from incarceration to strangulation, making timely clinical diagnosis and urgent surgical intervention imperative. This case highlights the dangers of delayed presentation and initial conservative management in the setting of acute groin swellings. A definitive surgical approach, ensuring bowel viability and secure anatomical repair, remains the cornerstone of reducing morbidity and mortality in these vulnerable patients.

Future Directions

While surgical principles for managing strangulated hernias are well established, future focus must shift toward community

and primary care education to prevent delayed referrals. In elderly populations where atypical presentations are common, establishing standardized, rapid-triage ultrasound protocols at peripheral centers could dramatically reduce the time from incarceration to surgical release. Additionally, further large-scale registry data is needed to better understand the long-term recurrence rates of tissue vs. biological mesh repairs in contaminated emergency hernia fields.

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