INTERNATIONAL JOURNAL OF HEALTH & MEDICAL RESEARCH

ISSN(print): 2833-213X, ISSN(online): 2833-2148

Volume 05 Issue 03 March 2026

DOI : 10.58806/ijhmr.2026.v5i3n13

Page No. 253-255

Transverse Colon Necrosis Secondary to Strangulated Right Inguinoscrotal Hernia: A Rare Surgical Emergency

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ABSTRACT:

Background: Inguinoscrotal hernias are common in elderly males. Although incarceration and strangulation are well-known complications, involvement of the transverse colon with subsequent necrosis remains uncommon and may present without classical signs of bowel obstruction.

Case Presentation: We report the case of a 71-year-old male, chronic smoker (40 pack-years), with a one-year history of a progressively enlarging right inguinoscrotal hernia. The hernia became irreducible and painful 24 hours prior to admission, without cessation of flatus or stool and without bowel transit disturbance. On examination, the patient was hemodynamically stable and afebrile. Abdominal examination revealed a painful, irreducible, non-expansile right inguinoscrotal hernia without inflammatory skin changes. Emergency surgery revealed a small amount of reactive peritoneal fluid and necrosis of the mid-transverse colon after reduction of the hernia contents. A segmental transverse colectomy with resection of necrotic greater omentum was performed, followed by a diverting transverse colostomy (Bouilly–Wolkman procedure). Hernia repair was completed using the Bassini technique. The remainder of intra-abdominal exploration was unremarkable.

Conclusion: Strangulated inguinoscrotal hernia may occur without classical obstructive symptoms. Early surgical exploration remains mandatory in irreducible painful hernias, even in the absence of bowel obstruction signs, to prevent catastrophic complications such as colonic necrosis.

KEYWORDS: Inguinoscrotal hernia, Strangulation, Transverse colon necrosis, Emergency surgery, Bassini repair

INTRODUCTION

The protrusion of any viscus (covered by a peritoneal sac) through the inguinal region of abdominal wall is known as inguinal hernia. Inguinal hernia is the most common hernia (73%) because the muscular anatomy in the inguinal region is weak and also due to the presence of natural weakness like deep ring and cord structures. Indirect is more common than direct[1] Inguinal hernias are almost always symptomatic, a minority of patients is asymptomatic. and the only cure is surgery.[2]

We present a rare case of transverse colon necrosis secondary to a strangulated right inguinoscrotal hernia without signs of intestinal obstruction.

CASE PRESENTATION

A 71-year-old man presented with acute right inguinoscrotal pain. His medical history was notable for chronic tobacco use of 40 pack-years, which was ongoing, and a history of occasional alcohol consumption, with abstinence for the past 10 years.

He reported a one-year history of progressively increasing right inguinoscrotal swelling that had previously been reducible and asymptomatic. Twenty-four hours prior to admission, the swelling became irreducible and painful. He denied nausea, vomiting, abdominal distension, cessation of stool or flatus, or any disturbance in bowel habits. He also reported no fever or other systemic symptoms.

On physical examination, the patient was conscious and hemodynamically stable. His blood pressure was 110/80 mmHg, heart rate 88 beats per minute, respiratory rate 17 breaths per minute, and temperature 36.2°C. Abdominal examination revealed a soft abdomen without prior laparotomy scars. A painful, irreducible right inguinoscrotal hernia was noted, without cough impulse or overlying skin inflammation. No palpable abdominal mass or lymphadenopathy was detected. Digital rectal examination showed normal sphincter tone and normally colored stool on the glove.

In view of the irreducibility and pain, a diagnosis of strangulated inguinoscrotal hernia was suspected, and emergency surgical intervention was indicated.

Figure 1 : image of the inguinoscrotal hernia

Intraoperative exploration revealed a small amount of reactive peritoneal fluid, which was sampled and evacuated. After reduction of the hernia contents, necrosis of the mid-portion of the transverse colon was identified, along with associated necrosis of the greater omentum. No other intra-abdominal abnormalities were found.

A segmental resection of the transverse colon was performed, including excision of the necrotic greater omentum. A diverting transverse colostomy was created using the Bouilly–Wolkman procedure. The right inguinoscrotal hernia was repaired using the Bassini technique because of the contaminated surgical field. The procedure was completed without intraoperative complications.

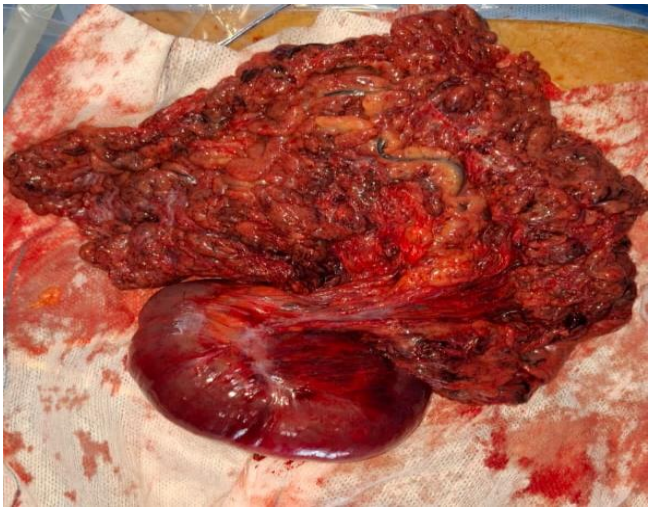

Figure 2 : transverse colon and omental necrosis

The postoperative course was uneventful: the patient was discharged on postoperative day 3 with a soft abdomen, a clean dressing, and a functional stoma.

DISCUSSION

Inguinal hernia means protrusion of abdominal viscera through a defect in the inguinal region of anterior abdominal wall[3] they are the most common type of hernia in adults, where abdominal contents protrude through the inguinal canal, They are more common in men, with about a 25% lifetime risk of developing an inguinal hernia[4] Patient developing inguinal hernia are found to have a higher proportion of collagen III (having less tensile strength) as compared to collagen I. The pooled prevalence of inguinal hernia worldwide is reported as 7.7 % whereas the lifetime risk of inguinal hernia in male and female is 27 % and 3 % respectively[3]

Strangulated Inguinal hernia is one of the most common surgical emergencies dealt with by surgeons worldwide. It is the most common cause of intestinal obstruction in all age groups[5]Approximately 10% of inguinal hernias become incarcerated rendering them irreducible. If the blood supply to the incarcerated tissue is compromised, the hernia becomes strangulated[4]

Worldwide, inguinal hernia repair is one of the most common surgeries, being performed in more than 20 million people annually[6] The choice of surgical technique and repair method should be individualized based on patient anatomy, hernia characteristics, and the clinical context, to ensure durable repair while minimizing the risk of recurrence and complications[7]

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Incarceration of inguinal hernia occurs in approximately 10% of cases which in turn can lead to intestinal obstruction, strangulation and infarction. Among these complications, strangulation is the most serious with potentially lethal sequelae.[1] It is necessary to treat inguinoscrotal hernias, since organ perforation can occur, potentially causing peritonitis and sepsis It is proved that early elective operations are associated with less fatal complications than emergency interventions[8] Laparoscopic or hybrid approaches allow excellent visualization, safe resection of inf lamed tissue, and layered closure of hernia defects.[9]

CONCLUSION

Strangulated inguinoscrotal hernia can lead to transverse colon necrosis even in the absence of classical intestinal obstruction symptoms. Painful irreducibility should prompt urgent surgical exploration. Early diagnosis and appropriate surgical management are critical to reducing morbidity and preventing life-threatening complications.

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