

# Scrotal Enterocutaneous Fistula, a Rare Complication of Inguinal Hernia, Case Report and Literature Review

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## Abstract

Scrotal enterocutaneous fistula is a rare complication of inguinal hernia. We report a case of scrotal enterocutaneous fistula in a 42-year-old male who presented with painful right inguino-scrotal swelling, abdominal distention and constipation. The patient was treated by a native doctor initially with conservative measures leading to spontaneous rupture of the incarcerated bowel and formation of an enterocutaneous fistula. We also review the literature for this rare complication of inguinal hernia.

## INTRODUCTION

Inguinal hernia is a common surgical condition. It is easy to diagnose and manage. However, delay in the diagnosis and surgical treatment can cause several complications including strangulation, incarceration, obstruction and rarely fistulas. In countries like India with limited resources, lack of knowledge and financial constraints this is quite common and leads to increased morbidity related with hernias. We report a case of scrotal enterocutaneous fistula, a rare complication of incarcerated inguinal hernia due to late presentation, neglect and lack of proper management.

## CASE REPORT

Several days before coming to our emergency department, a 42-year-old healthy male presented to a local native doctor with 15 days history of painful swelling in the right inguino-scrotal area. The pain was gradually getting worse. It was associated with abdominal distention and constipation. He had a history of spontaneous reducible inguinal swelling for about 27 years which was now irreducible and painful during the last month. He was managed with local remedies but without an adequate response. After 5 days the skin of the right side of the scrotum had sloughed off and there was feco-purulent discharge from the wound with symptomatic relief. After this episode, the patient came to our institution for further management.

In the emergency department, the patient denied abdominal pain, nausea and vomiting. There was no associated fever and chills. His vitals were stable. On physical examination, his heart rate and rhythm were normal with normal S1 and

S2 and no murmurs. His lungs were clear to auscultation. His abdomen was soft with no distention, tenderness, rigidity and guarding. His right groin showed an oblong swelling with no tenderness and his right scrotum showed a wound with oozing of feco-purulent discharge. Laboratory testing (complete blood count, complete metabolic profile, coagulation test) revealed anemia (Hemoglobin 7gm/dl). Chest radiograph, abdominal X-rays and electrocardiogram were unremarkable. Ultrasound of the abdomen showed multiple enlarged retroperitoneal lymph nodes with bowel loops in the right inguinal canal and scrotum.

Based on that evaluation, the patient was admitted to our hospital with a diagnosis of scrotal enterocutaneous fistula secondary to spontaneous rupture of obstructed/incarcerated inguinal hernia. He was started on intravenous broad-spectrum antibiotics and intravenous fluids, taken immediately to the operation theater and an emergency exploratory laparotomy was performed. A 30cm loop of the incarcerated ileum with a large 3x3cm perforation about 60cm from the ileocaecal junction was noted. There was sloughing of the right testis with no peritoneal contamination. The ileal loop was reduced. Resection of 15cm of the ileal segment containing the perforation with end to end anastomosis was done. The deep inguinal ring was closed with purse string suture. The scrotal wound was debrided and daily dressings were done. Intraoperatively, two units of blood were transfused. After 48 hours the patient was started on oral feeding which was well tolerated. However, on the 5<sup>th</sup> postoperative day, he developed sudden respiratory distress and cardiac arrest. The patient

succumbed despite resuscitation. The presumed cause of death was pulmonary embolism.

## DISCUSSION

Scrotal enterocutaneous fistula is a rare complication of incarcerated inguinal hernia. Five cases of scrotal enterocutaneous fistula in the pediatric<sup>1-4</sup> and four cases in the adult<sup>5-8</sup> age group have been reported in the literature so far. Two case reports of scrotal fistulae following spontaneous rupture of strangulated Richter's hernia have been reported from Nigeria.<sup>5</sup> One case has been reported from Pakistan<sup>6</sup> and other case from Bhopal in India<sup>7</sup>. This complication occurs mainly in the developing countries<sup>1-6</sup> and is usually the result of poverty, lack of knowledge, neglect, late presentation and lack of proper management.

This case report has been presented due to the rarity of this complication in the adult age group and total absence in the western world. Our case presents a unique situation in which the patient presented to the native doctor before the fistula developed unlike in other cases. However, due to his own neglect and improper management of the condition by the native doctor he developed this rare complication. We

believe that appropriate early surgical management could have prevented the formation of the enterocutaneous fistula. The principle of early referral and repair of inguinal hernias is the key for prevention of this complication as well as the associated morbidity and mortality. This case reflects the state of health care in the developing world and needs to be addressed by the concerned authorities.

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