

CASE REPORT

Spontaneous Scrotal Faecal Fistula in an Adult: A Complication of Neglected Incarcerated Inguino-scrotal Hernia

Joseph A ABIAHU
Timothy U MBAERI

Author for Correspondence

Dr Joseph A ABIAHU
Department of Surgery
Nnamdi Azikiwe University
Nnewi Campus
Anambra State, NIGERIA

Phone: +234 806 231 8058

Email:

jabiahu2000@yahoo.com

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ABSTRACT

Spontaneous scrotal faecal fistula is a rare complication of incarcerated inguino-scrotal hernia in both adult and paediatric populations. We report a case of 55 year old man who presented with scrotal faecal fistula following neglected incarcerated right inguino-scrotal hernia. The cause and management were also discussed.

Key words: Scrotum, Faecal fistula, Late presentation, Hernia, Adult.

INTRODUCTION

A hernia is an abnormal protrusion of a viscus or its part through a defect or weakness in the wall of its containing cavity. Its classifications include the body area of its occurrence and the content of the hernia sac.¹ Inguinal hernia is a common surgical condition in children and adults.^{1,2,3} The indirect type which is the most common type of inguinal hernia can descend into the scrotum to form the inguino-scrotal hernia.¹ This increases the risk of complications in adults.

Diagnosis is clinical. Early diagnosis and treatment prevents complications.^{1,2,3,4}

Herniorrhaphy or hernioplasty is the standard treatment in uncomplicated inguino-scrotal hernia. Adoption of modifications in treatment may be necessary in the presence of complications. Common serious complications of neglected inguino-scrotal hernia include incarceration, obstruction and strangulation with associated sepsis sometimes.^{1,2,3}

Spontaneous rupture of gut through the scrotal wall in incarcerated hernia is a rare complication in adults.^{2,5} This report is the first in our centre and probably the third reported case in Nigeria.

CASE REPORT

We report a case of 55-year old labourer from rural area of Nigeria, West Africa. He presented with 2 year history of right inguino-scrotal swelling and 3 week history of faecal discharge from the scrotum. Swelling was initially limited to the right inguinal region, precipitated by strenuous activities with spontaneous regression at rest. This progressed with time into the scrotum with increasing difficulty in spontaneous regression necessitating occasional manual reduction. Two months prior to presentation, the swelling became irreducible with onset of pain 2 weeks afterwards. The pain was insidious, rapidly progressive with associated redness of scrotal skin. The swelling subsequently ruptured spontaneously with initial discharge of purulent, foul smelling fluid followed later by faeces. The scrotal pain resolved following the rupture and faeco-purulent discharge.

There was no abdominal pain, abdominal swelling, nausea or vomiting. Patient was passing normal stool per rectum until few days after onset of scrotal faecal discharge when he noticed gradual cessation. He had no history of cough, lower urinary symptoms or fever. No prior groin or scrotal surgeries was reported. Patient was not a known hypertensive or diabetic.

Clinical examination showed an anxious man, otherwise clinically stable. There was a right inguino-scrotal swelling with spectacle-like ulcer on anterior aspect of the right hemiscrotum. The ulcer floor led into an opening, and the proximal aspect exposed an oedematous mucosa of gut with discharge of semi-formed faeces (figure 1). The bridging and surrounding scrotal skins were erythematous. The right testis was not distinctly palpable. The left hemiscrotum and phallus were normal. There were no significant abdominal findings. Rectal examination revealed a collapsed rectum with no mass or lesion. The prostate was not significantly enlarged.

Investigation reports included: full blood count, fasting blood glucose and serum

electrolytes, blood urea and creatinine which were essentially normal. Abdomino-pelvic and scrotal ultrasound showed intra-scrotal herniation of large gut with reduced peristaltic motility, normal intra-abdominal viscera, thickened skin of right hemiscrotum and normal testes bilaterally. Fistulography outlined a fistulous tract between the caecum and scrotum. Other parts of the colon were normal in calibre and outline (figure 2).

A diagnosis of enterocutaneous fistula complicating ruptured incarcerated inguino-scrotal hernia was made and he was worked up for surgery. Mechanical bowel preparation was done for 3days. He had groin exploration and exploratory laparotomy. Intra-operative findings were ruptured anterior wall of caecum (it formed part of hernia sac's wall and content) with the stoma adherent to the anterior scrotal wall. A 2cm by 1cm sesamoid mass at the base of the appendix, mobile caecum with long ascending mesocolon, non-inflamed retro-caecal appendix measuring 20cm by 1.5cm, collapsed healthy small and large guts (figure 3).

Right hemicolectomy with ileo-colic end to end anastomosis, right inguinal herniorrhaphy and scrotoplasty were done. Right paracolic and right hemiscrotal drains were put in place (figure 3). A scrotal support was applied. Patient had a good post-operative recovery. He was discharged home on the 10th post-operative day. The follow up visits at 1week, 1month and 3months were satisfactory (figure 4).

Figure 1. Clinical picture at presentation

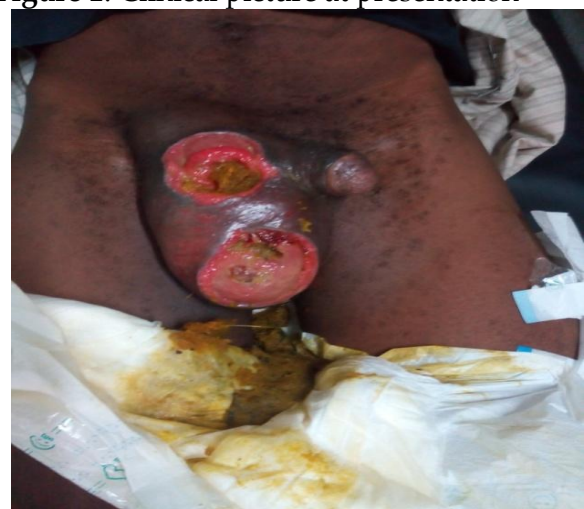


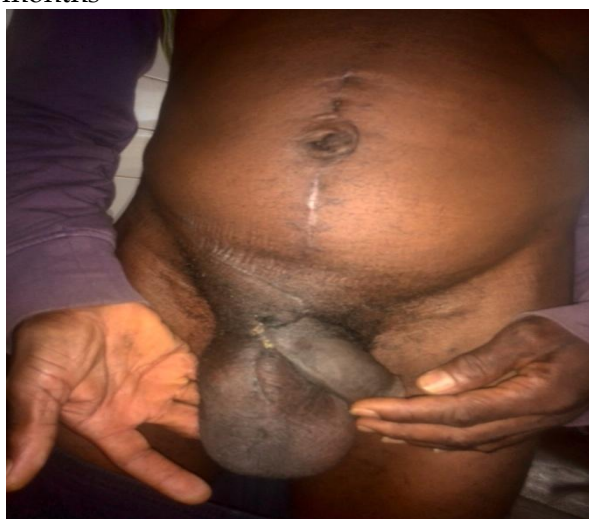
Figure 2. Fistulogram of index patient



Figure 3. Immediate post-operative clinical picture



Figure 4. Post-operative clinical picture at 3 months



DISCUSSION

Inguino-scrotal hernia is a common surgical condition in both adults and children.^{1,2,3} The incidence of incarceration and risk of strangulation in adult is unknown. However, the risk of incarceration of 5%-23.6% with 0-1.8% of strangulation were reported in paediatric population.^{2,6,7} Development of spontaneous rupture following incarcerated hernia are rarer among adult population compared to children.^{2,5}

The common occurrence of spontaneous scrotal faecal fistula in resource poor areas of developing countries was highlighted in several reports.^{2,3,5,8} Ignorance, poverty and non-availability of proper healthcare were identified major factors of delayed treatment with increased complications.^{1,2,3} This was also highlighted in our report. Sowande, *et al.* mentioned a high risk of testicular gangrene from prolonged vascular compression and ischaemia.² This may necessitate orchidectomy. However, early spontaneous decompression via fistula with reduction in testicular vascular compression may avert this as observed in our patient. Risk of testicular gangrene may be rarer in adult due to fairly developed and resilient testicular vasculature that can withstand the compressive pressure until early spontaneous decompression via fistula formation.

The right sidedness of this condition in our report was observed in other reports.^{2,3} This conforms to the more common occurrence of inguinal hernias on the right¹. However, inherent congenital anomaly like a very mobile (wandering) caecum as noted in our report may be a risk factor for right-sidedness especially the Richter-type strangulation. Our patient may be the third reported case of spontaneous scrotal faecal rupture in Nigeria due to strangulated Richter's hernia. The duration between hernia incarceration and rupture is 10-14 days. Abdul and colleague, and Sowande, *et al.* reported total duration of 10 days.^{2,3} In our report, a period of 14 days was noted. Local signs and symptoms usually improve soon after spontaneous rupture as noted in most reports.^{2,3} This was also highlighted in our report. We found barium

enema and fistulography useful in defining this pathology as also observed by Abdul, *et al.*

Surgical intervention is the standard care after optimization of patient.^{1,2,3} Surgical approach is guided by the pathology. Sequential approach may be necessary. Initial groin exploration will give initial assessment of pathology, determines further surgical intervention and offers access for proper hernia repair. This was highlighted in our report.

Primary or secondary closure of groin and scrotal wounds is also an issue of discuss. Secondary wound closure was reported in some reports.^{2,3} In our report, primary wound

closure was done over a drain after preoperative local wound care and bowel preparation. Our patient's postoperative hospital stay was 10days with smooth recovery. There is need for further research on this.

CONCLUSION

This case report highlights the need for an early diagnosis, prompt and proper treatment of inguino-scrotal swellings and its rare complication of spontaneous scrotal faecal rupture. The possible factors for delayed treatment were also pointed out. There is a need for good health policies to improve education, awareness and availability of care in developing countries to prevent this.

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