Spontaneous scrotal faecal fistula: A rare complication of incarcerated inguinal hernia in infancy

O. A. Sowande, O. Adejuyigbe, O. O. Ogundoyin, A. F. Uba, J. Y. Chinda
Paediatric Surgery Unit, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Osun State, Nigeria

Correspondence: Dr. Sowande OA, Department of Surgery, Obafemi Awolowo University Teaching Hospital, PMB 5538, Ile-Ife, Osun State Nigeria. E-mail: drshow286@yahoo.com

ABSTRACT

Spontaneous scrotal faecal fistula is a rare complication of incarcerated inguino-scrotal hernia in the neonate and infants. Only five previous cases have been reported in the English medical literature. We report another case of a 28-day-old neonate, who presented with fecal fistula following prolonged incarceration of a right inguino-scrotal hernia. The etiology and management of this rare complication is discussed.

KEY WORDS: Faecal fistula, incarcerated inguinal hernia, neonate

INTRODUCTION

Inguinal hernia is one of the commonest pediatric surgical condition, which can be complicated by incarceration and intestinal obstruction. The risk of incarceration of inguinal hernia is higher in the neonatal period and early infancy and is easily prevented by early diagnosis and treatment. Early reduction of the hernia followed by elective herniography is the standard treatment if there is incarceration. Emergency surgical intervention is, however, required in case of suspected or established strangulation. A very rare complication of incarcerated inguinal hernia in infancy is the development of spontaneous bowel necrosis with entero-scrotal cutaneous fistula.

We report here a case of spontaneous scrotal faecal fistula in a 28-day-old infant following prolonged incarcerated right inguino-scrotal hernia.

CASE REPORT

28-day-old infant was referred to our unit from a remote town in southwestern Nigeria with a 2-day history of discharge of faecal matter from the right hemiscrotum. The mother had noticed a previously reducible right inguino-scrotal swelling since birth, but the swelling became irreducible 10 days earlier to presentation. This was associated with progressive abdominal distension, irritability and vomiting of feeds by the infant. The skin over the swelling became progressively inflamed culminating in spontaneous sloughing and faecal discharge from the scrotum. This was followed also by gradual reduction of the abdominal distension. Examination of the infant revealed marked weight loss and dehydration otherwise he was well looking. The vital signs were normal. There was a right irreducible inguino-scrotal hernia with shiny overlying skin that extends to involve the left hemiscrotum. On the ventral surface of the right scrotal wall was an area of skin necrosis measuring approximately 2 by 3 cm discharging frank faeces (Figure 1). The abdomen was slightly distended, but soft with a reducible umbilical hernia and no area of tenderness. The packed cell volume and the electrolytes and urea were normal.

Figure 1: Obstructed right inguino-scrotal hernia with scrotal faecal fistula
After full hydration, the infant had right inguinal exploration. The hernia sac was opened and the incarcerated bowel delivered into the wound. A gangrenous loop of terminal ileum was involved in the incarceration with a 2 cm perforation on its antimesenteric border. The testis was apparently normal. The gangrenous segment was resected and bowel continuity re-established. Routine herniotomy was done and the wound closed in layers the scrotal wound was debrided and left to heal by secondary intention. Post-operative course was complicated by peritonitis necessitating laparotomy to close an anastomotic leak. Thereafter the child did well. After 24 months follow up there has been no recurrence and no evidence of testicular atrophy.

**DISCUSSION**

Inguinal hernia is one of the commonest pediatric surgical problem and when treated early and appropriately is associated with negligible morbidity and very rarely any mortality. The risk of incarceration of inguinal hernia in children varies between 5 and 23.6% in many series[7-10] and occurs more frequently in neonates and infants. With early presentation, incarcerated hernia can be managed using initially conservative means by sedation, elevation of the foot of the bed and taxis if necessary provided there is no strangulation. Elective herniotomy is then done later. Unrelieved incarceration may be followed by strangulation with bowel gangrene and perforation. However, the risk of strangulation following incarcerated inguinal hernia in infants is very low and ranges between 0 and 1.8%. [1,2,7,8] In this instance, emergency exploration becomes indicated. Spontaneous bowel necrosis and entero-scrotal cutaneous fistula as reported in our patient is rarely reported. To the authors’ knowledge, only five previous cases have been reported in the English medical literature.[3-6] All, reported cases were due to delayed presentation and occurred in the developing countries (India and Nigeria) where access to health care facilities is difficult and often expensive for people living in the rural areas. With prolonged incarceration, there is a high risk of testicular ischaemia from vascular compression. This may progress to frank gangrene of the testis requiring Orchidectomy. In two of the previously reported cases orchidectomy was necessary, but in our patient the testis was viable at surgery. This we believe is due to the spontaneous decompression via the fistula thereby reducing the pressure on the testicular vessels. Our patient has not shown any sign of testicular atrophy 24 months after.

Also, the presence of the fistula allowed for decompression of the bowel and temporary relief of the intestinal obstruction. Unrelieved strangulation will, however, increase the likelihood of septic complications and mortality associated with neonatal intestinal obstruction. Therefore urgent surgical exploration with bowel resection and end-to-end anastomosis is necessary to avert this.

Early presentation and management of incarcerated inguinal hernia in infancy would go a long way in preventing this rare complication and it is hoped that with education as well as provision of adequate health care facilities, which is easily accessible this complication of incarcerated inguinal hernia would become rarer still and its attendant morbidity prevented.

**REFERENCES**