

JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH

How to cite this article:

GHRITLAHAREY RAJENDRA K, SHRIVASTAVA D K, KUSHWAHA A S. SPONTANEOUS SCROTAL FAECAL FISTULA IN INFANT: A CASE REPORT AND LITERATURE REVIEW.

Journal of Clinical and Diagnostic Research [serial online] 2007 August [cited: 2007 Aug 1]; 4:303-306.

Available from

[http://www.jcdr.net/back_issues.asp?issn=0973-](http://www.jcdr.net/back_issues.asp?issn=0973-709x&year=2007&month=August&volume=1&issue=4&page=303-306&id=77)

[709x&year=2007&month=August&volume=1&issue=4&page=303-306&id=77](http://www.jcdr.net/back_issues.asp?issn=0973-709x&year=2007&month=August&volume=1&issue=4&page=303-306&id=77)

CASE REPORT

Spontaneous scrotal faecal fistula in infant: A case report and literature review

GHRITLAHAREY R K, SHRIVASTAVA D K, KUSHWAHA A S

ABSTRACT

A one month old infant presented with an irreducible right inguino-scrotal swelling and faecal discharge from the scrotum for a week. Inguinal exploration revealed an incarcerated right inguinal hernia containing loop of small intestine, Meckel's diverticulum and a perforation of the small intestine measuring 3 cm. Resection of part of ileum containing the diverticulum and perforation was done and end-to-end anastomosis was performed. Spontaneous intestinal - scrotal fistula from incarcerated inguinal hernia in neonates and infants is a rare occurrence and hitherto only seven such cases have been reported in the world literature.

Key words: Incarcerated inguinal hernia, neonates, scrotal faecal fistula

Introduction:

Inguinal hernia repair is one of the most common general neonatal and paediatric operations. The reported incidence of inguinal hernia varies from 0.8% to 4.4% in children. [1] The risk of incarceration of inguinal hernia in children varies between 5 to 23.6%, the highest reported being 60% in the first 6 months of life. The risk of strangulation following incarcerated inguinal hernia in infants is very low and ranges between 0 to 1.8% [2],[3]. On rare occasion incarcerated bowel can perforate leading to formation of entero – scrotal cutaneous fistula. In this paper a case of entero – scrotal cutaneous fistula is described and the literature reviewed.

Case History:

A one-month-old boy was admitted to hospital

with a chief complaint of persistent swelling at the right inguino-scrotal area and discharging faeces from the scrotum for a week. He was a first of a set of twins born at term normally at hospital and his postnatal condition was good. His mother noticed a reducible right inguino-scrotal swelling since birth. However he did very well until a week before admission when mother noticed that it was irreducible and discharging faeces from scrotum. He also had associated vomiting, feeds refusal and had not passed motion, cough and cold for which he was treated at primary health centre for three days before admission.

Examination revealed that he was 2.25 kg, ill, dehydrated and his abdomen was mildly distended without visible loops of bowels. At admission, he was hypothermic, peripheral cyanosis and scleraema were also noticed. An irreducible right inguinal hernia was noted with gangrene of the right scrotum. Faecal matter was seen discharging from the scrotum [Table/Fig 1]. The left inguino-scrotal area was normal.

Department of Pediatric Surgery, Gandhi Medical College & Associated Kamla Nehru & Hamidia Hospitals Bhopal, M. P. 462 001 INDIA

Corresponding Author: Dr. Rajendra K Ghritlaharey, Associate Professor, Department of Pediatric Surgery, Gandhi Medical College & Associated Kamla Nehru & Hamidia Hospitals Bhopal, M. P. 462 001 INDIA. E-mail - drrajendrak1@rediffmail.com

Examination of other systems did not demonstrate any abnormality.

Table/Fig 1



Clinical photograph of patient Showing - Obstructed right inguino-scrotal hernia, gangrene of scrotal skin and faecal discharge

Routine laboratory investigations gave the following results; Hb-10gm% (needed blood transfusion), total and differential WBC counts was 9800/cmm, P 78, L 20, M 02, B 00. His serum electrolyte was; Na -131.2 mmol/L, K - 3.4 mmol/L. C-Reactive protein was not done. Blood culture showed heavy growth of pseudomonas species. Gas shadow was seen at the right inguinal region and the right scrotum on plain radiograph of the abdomen and pelvis. There was no evidence of free air on the radiograph [Table/Fig 2].

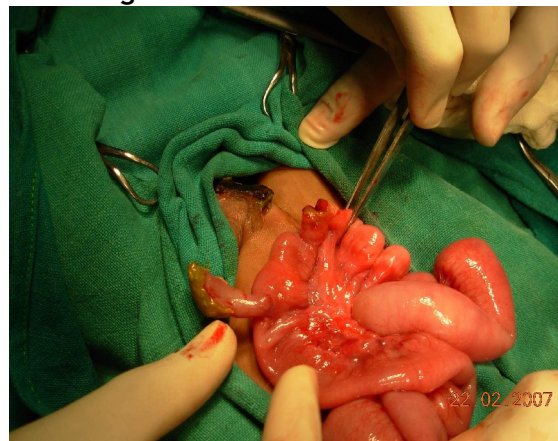
Table/Fig 2



Plain skiagram of abdomen and pelvis Showing - Presence of gas shadow at right inguino scrotal area without air fluid levels and free gas under diaphragm

Exploration of the inguinal canal under general anaesthesia was carried out after initial stabilization of the patient and this revealed an inguino scrotal hernia containing a loop of intestine and Meckel's diverticulum. A perforation at the ante-mesenteric border 6 cm proximal to the Meckel's diverticulum was observed [Table/Fig 3]. Resection of part of ileum containing the perforation and diverticulum was performed and end-to-end anastomosis was made. The right testicle appeared normal. Herniotomy and debridement of the scrotal skin was also done and the scrotal skin closed with a drain. He received a combination of ceftriaxone + tazobactam, amikacin, and metronidazole to which ampiclox was added on fourth postoperative day. His general condition did not improve much after operation; his scleraemia persisted, developed pneumonitis and unfortunately died of septicaemia on the fifth postoperative day.

Table/Fig 3



Operative photograph of patient Showing - Part of ileum with perforation and Meckel's diverticulum

Discussion:

Congenital inguinal hernia is one of the commonest surgical conditions in children. Congenital inguinal hernia in children is a result of the failure of the processes vaginalis to obliterate. Boys are 10 to 12 times more affected than girls. It is also reported more frequently in premature. The risk of incarceration has been reported to be as high as 60% in the first 6 months of life[3]. Perforation of the intestine through the scrotal wall of incarcerated inguinal hernia is extremely rare and only seven such

cases has been reported in the world literature till date [2],[4-8]. Summary of above cases are given in [Table/Fig 4]. This complication appears to occur only in developing countries (India and Nigeria) and was due to late presentation, including our case.

Out of eight cases (including our) of spontaneous entero-scrotal faecal fistula in neonates and infants, there were right side involvement in seven and only one patient had left side presentation. This is because of predominance of right-sided inguinal hernia in children. The ipsilateral testis is always at risk of ischemia / necrosis because of compression of the spermatic cord structures by the strangulated / incarcerated inguinal hernia. In review of eight cases including our; at two occasion

orchidectomy was needed [4],[5]. Morbidity of incarcerated and strangulated inguinal hernia in newborn is high with an attended risk of bowel gangrene and testicular infarction.

The preferred and gold standard management of incarcerated inguinal hernia in children without evidence of strangulation is non-operative reduction under analgesia and sedation followed by an elective planned herniotomy after 48 – 72 hrs. When strangulation is present, surgery is mandatory to avoid septicaemia, even in patients decompressing intestine through scrotal fistula. The principle of early referral and repair of inguinal hernias should be encouraged to avoid morbidity and possible avoidable mortality [7], [9],[10].

Series No.	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8
Ref No	4	5	6	7	7	8	2	Present case
Age at presentation (Days)	20	20	60	29	43	21	28	30
Duration (days)	-	-	8	7	8	7	10	7
Side of involvement	Right	Right	Left	Right	Right	Right	Right	Right
Exploration	Inguinal	Inguinal	Inguino scrotal	Inguinal	Inguinal	Inguinal	Inguinal	Inguinal
Operation done	R/A* of ileum, Herniotomy & Scrotal debridement	R/A of ileum, Herniotomy & Scrotal debridement	R/A of ileum, Herniotomy & Scrotal debridement	R/A of ileum, Herniotomy & Scrotal debridement	Repair of fistula, Herniotomy & Scrotal debridement	R/A of ileum, Herniotomy & Scrotal debridement	R/A ileum, Herniotomy & Scrotal debridement	R/A ileum, Herniotomy & Scrotal debridement
Condition - Ipsilateral testis	Gangrenous needed Orchidectomy	Gangrenous needed Orchidectomy	Normal	Normal	Normal	Normal	Normal	Normal
Complication if any	Nil	Nil	Nil	Scrotal wound infection	Nil	Nil	Anastomotic leak	Septicaemia
Country	India	India	India	Nigeria	Nigeria	Nigeria	Nigeria	India
Outcome	Survived	Survived	Survived	Survived	Survived	Survived	Survived	Died

Foot notes: R/A – Resection and anastomosis

Table/Fig 4: Summary of cases of spontaneous scrotal faecal fistula in infants and neonates

References:

- [1] Lloyd DA, Rintala RJ. Inguinal hernia and hydrocele. In: O'Neill JA, Rowe MI, *et al* editors. *Pediatric Surgery*. 5th ed. Mosby Year Book Inc 1998:p1071-86.
- [2] Sowande OA, Adejuyigbe O, Ogundoyin OO, Uba AF, Chinda JY. Spontaneous scrotal faecal fistula: a rare complication of incarcerated inguinal hernia in infancy. *J Indian Assoc Pediatr Surg* 2006;11:244-45.
- [3] Haynes JH. Inguinal and scrotal disorders. *Current practice in pediatric surgery*. *Surg Clin N Am* 2006;86:371-81.
- [4] Gupta DK, Rohatgi M. Inguinal hernia in children: an Indian experience. *Pediatr Surg Int* 1993;8:466-8.
- [5] Rattan KN, Garg P. Neonatal scrotal faecal fistula. *Pediatr Surg Int* 1998;13:440-1.
- [6] Kasat LS, Waingankar VS, Kamat T, Anil Kumar, Bahety G, Meisheri IV. Spontaneous scrotal faecal fistula in an infant. *Pediatr Surg Int* 2000;16:443-4.
- [7] Ameh EA, Awotula OP, Amoah JN. Spontaneous scrotal faecal fistula in infants. *Pediatr Surg Int* 2002;18:524-5.
- [8] Chirdan LB, Uba AF, Iya D, Dakum NK. Spontaneous scrotal faecal fistula in a neonate: report of a case. *Nigerian J Surg Research* 2004; 6:59-60.
- [9] Ameh EA. Morbidity and mortality of inguinal hernia in the newborn. *Niger Postgrad Med J* 2002;9:233-4.
- [10] Marinkovic S, Bukarica S, Cvejanov M, Pekovic-Zrnic V, Jokic R, Dobanovacki D. Inguinal herniotomy in prematurely born infants. (Article in Croatian) *Med Pregl* 1998;51:228-30.