

Spontaneous Groin Enterocutaneous Fistula following Neglected Inguinal Hernia in 3-month Infant spontaneous enterocutaneous fistula following neglected inguinal Hernia Leading to Groin Enterocutaneous Fistula in 3-Month Infant

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Abstract

Hernia is defined as a protrusion of part or whole of a viscera through an abnormal opening in the wall of the cavity containing the viscera. Strangulation of the viscera within the hernial sac is a common complication in our environment, and this occurs in both adult and children. We study the presentation and management of a 3-month-old infant with groin enterocutaneous fistula following a neglected inguinal hernia. A 3-month-old infant presented late with perforated intestine in an inguinal hernia and managed by the resection and anastomosis of the small intestine. The outcome of a neglected inguinal hernia is still poor in our environment.

Keywords: Fistula, inguinal hernia, strangulation

INTRODUCTION

Hernia is defined as a protrusion of part or whole of a viscera through an abnormal opening in the wall of the cavity containing the viscera. Inguinal hernia is a common problem in both children and adults. The two common complications of inguinal hernia are obstruction and strangulation.^[1]

Hernias are more common in men than in women. Males are eight times more likely to develop a hernia during their lifetime than females.^[2] There are two basic types of inguinal hernia, direct and indirect, which are defined by their relationship to the inferior epigastric vessels. While the direct inguinal hernias occur medial to the inferior epigastric vessels, the indirect inguinal hernias occur lateral to the inferior epigastric vessels. The indirect hernia which is more common in children occurs due to the failure of embryonic closure of the processus vaginalis.^[2,3]

The treatment of inguinal hernias is mainly surgical, to avoid complications, which involves herniotomy in children

and herniorrhaphy in adult. The operation if done early, the outcome is good. However, if a neglected obstruction, strangulation or even rare complication of enterocutaneous fistula may occur.^[4,5]

We present a rare complication of enterocutaneous fistula following a neglected inguinal hernia.

CASE REPORT

MS is a 3-month-old boy who presented with a history of the right inguinal swelling noticed in the first 1 week of life which initially reduces spontaneously on lying down but appears whereas crying or coughing, the swelling progressively increases in size and became persistent 8 days

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Received: 25-12-2020 Revised: 07-02-2021 Accepted: 31-10-2021 Available Online: 23-06-2022

Access this article online

Quick Response Code:



Website:
www.afripaed.org

DOI:
10.4103/ajps.AJPS_183_20

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How to cite this article: Abdullahi LB, Atiku M. Spontaneous groin enterocutaneous fistula following neglected inguinal hernia in 3-month infant spontaneous enterocutaneous fistula following neglected inguinal hernia leading to groin enterocutaneous fistula in 3-month infant. Afr J Paediatr Surg 2022;19:176-8.



Figure 1: Post-anaesthesia (spinal)



Figure 2: Pre-operative picture of the patient



Figure 3: Intra operative picture

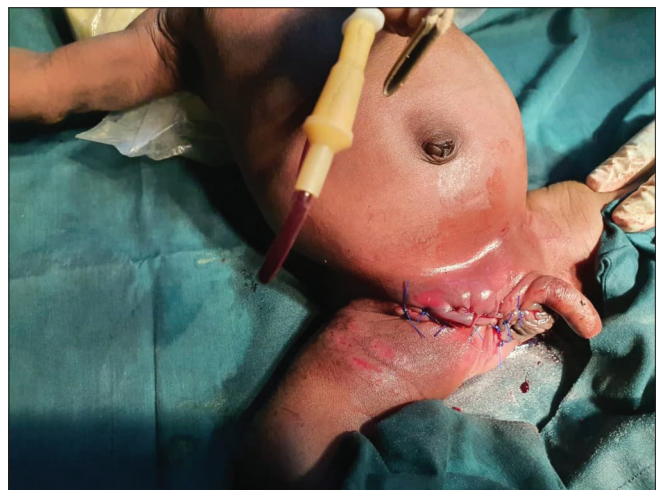


Figure 4: Post-operative picture

before presentation. Three days before the presentation, the swelling spontaneously ruptured discharging faecal matter with associated low-grade fever and abdominal distension; he had three episodes of vomiting before the presentation. Had history of cough and catarrh but no history of difficulty in breathing. No cry on micturition, urethral discharge or haematuria. No history of trauma before the presentation and no surgical intervention before the presentation. No history of traditional incision or any intervention.

On examination, he was found to be febrile with a temperature of 37.8°C, not pale, not jaundice but wasted. The patient has nasal discharge with mild congestion, but chest auscultation revealed a clear lungs field.

The pulse rate as 112beats/minutes and the Abdomen was slightly distended, moving with respiration and bowel sounds were present. The perineum was soiled with faecal matter with eviscerated intestine through the groin discharging faecal matter from an opening in the wall of the intestine [Figures 1 and 2].

An assessment of a neglected inguinal hernia with enterocutaneous fistula was made, and the patient was

resuscitated with intravenous (IV) fluid, IV antibiotic, urgent full blood count showed a packed cell volume of 32%, serum urea and electrolytes were essentially normal, serum protein to assess the nutritional status could not be done because of the emergency presentation. He was prepared and had exploration with resection and anastomosis of the intestinal segment containing the fistula [Figure 3]. The surgical procedure which was done under a regional anaesthesia (spinal) with sedation was uneventful [Figure 4]. The patient initially did well in the first 3 days post-operatively but developed surgical site infection with fever on the 4th day after the operation. The patient died 4 days post-operative from suspected overwhelming septicaemia.

DISCUSSION

Hernia is defined as a protrusion of part or whole of a viscera through an abnormal opening in the wall of the cavity containing the viscera. Inguinal hernia is a common problem in both children and adults, the two common complications of inguinal hernia are obstruction and strangulation.^[6-8] It is a

common condition affecting both men and women. Inguinal hernia is among the most common problems encountered by the surgeons and may be associated with significant complications. Hospital data from some Teaching Hospital in Africa indicate that inguinal hernia is the most common external hernia seen accounting for 70.5% of over 2000 cases and more common in men. Over the past three decades or more, strangulated inguinal hernia is still the most common cause of acute bowel obstruction in some parts of Africa.^[3]

The most common complications of inguinal hernia are intestinal obstruction and strangulation. Strangulation is said to be more common in primary hernia than recurrent and more in smaller hernia than large or giant hernia.^[9] The prevalence of strangulation is said to be as high as 2.9% in adult and some studies reported higher prevalence in children where a prevalence of as high as 50% was documented in the neonatal period.^[10,11] Indirect inguinal hernia which is more common in children is found to have more prevalence of strangulation than direct hernias. The right side is most commonly affected 2:1 than the left side.^[12] Considerable morbidity and mortality are associated with untreated, neglected inguinal hernias.^[13,14] Few cases of intestinal fistula following strangulated inguinal hernia were reported in the literature.

We present a case of spontaneous enterocutaneous fistula following a neglected inguinal hernia in a 3-month-old infant; the patient was resuscitated with IV fluids, antibiotic and had resection and anastomosis a day after the presentation. Some surgeons attempted laparotomy for intestinal fistula following neglected inguinal hernia; however, it was found to be associated with high peritoneal contamination by the faecal matter and exteriorised bowel segment with increased risk of peritoneal abscess and septicaemia.^[15,16] Our patient had resection and anastomosis through the inguinal approach which is thought to have lower risk of peritoneal contamination. The morbidity and mortality in patients with enterocutaneous fistula following strangulated inguinal hernia is found to be high in some studies. Our patient developed surgical site infection 3 days after the operation with subsequent fever and vomiting and died 5 days after the operation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other

clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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