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Case Report

Giant Inguinal Hernia: A Case Report

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Abstract

Giant inguinal hernia is rare. This may be asymptomatic or present with the complications. Contents vary from colon, small gut, vermiform appendix, mesentery, to omentum. A case of giant inguinal hernia in a 62-year-old male who presented with features of intestinal obstruction is reported. Patient had giant inguinoscrotal hernia which was tender, irreducible, and had no cough impulse. Emergency exploration via inguinoscrotal approach revealed that contents were small and large intestines, omentum, mesentery, and vermiform appendix. Right orchidectomy, reduction of contents into abdominal cavity after enlarging internal ring with a double layer closure of wall, and the reconstruction of scrotal skin were done. Giant inguinal hernia presenting as intestinal obstruction is rare.

Keywords: Giant; Inguinal; Hernia; Enlarging; Internal ring.

Introduction

Giant inguinal hernias are seen much less these days. In the West, they are almost not seen now. When inguinal hernia extends below the midpoint of inner thigh in standing position, it is a giant inguinal hernia (Sarkarbi et al. 2005). In a developing country, unseeking of medical advice and reluctance to get examined lead to gradual enlargement evolving into a giant hernia. These are always longstanding, present for years, and remain asymptomatic or present with an atypical presentations. Rarely, a giant hernia presents as an intestinal obstruction. Contents of giant inguinal hernia are gut, mesentery, or omentum. Surgical repair is often challenging and difficult because of loss of domain (King et al. 1986 and Veihelmann et al. 2001). Reduction of contents in giant inguinal hernia may lead to

cardiopulmonary arrest due to elevation of intra-abdominal pressure and elevation of diaphragm. Elective repair employs usually creating of pneumoperitoneum before repair. Emergency repair of giant inguinoscrotal hernia remains always challenging and may lead to morbidity. Reduction of contents via enlarging internal ring in giant inguinal hernia is rarely reported (Coetzee et al. 2011).

Case Report

A 62-year-old male presented with abdominal pain, vomiting, and constipation of 2 days duration. He had recurrent attacks of lower urinary tract infection and was a smoker. There was no history of chronic cough or constipation. General physical examination as well as systemic examination could not reveal any

significance. Patient was afebrile. Abdominal examination revealed distension and mild tenderness in abdomen. Bowel sounds were exaggerated. Examination of inguinal area revealed an inguinoscrotal swelling (34×17.7×9.7 centimeters) being present for the last 6 years which was asymptomatic and had gradual increase in size with thickened scrotal skin which had bluish discoloration. Left inguinal canal was normal and left testis was palpable. Penis was buried and right testis was not palpable. Inguinoscrotal swelling had no cough impulse and was tender and irreducible (Figures 1and 2). Serum electrolytes were normal. X-ray and ultrasonography abdomen were showing distension gut. Scrotal ultrasonography revealed distended gut loops in inguinoscrotal region. Patient had emergency exploration via inguinoscrotal approach. Peroperative findings revealed contents being terminal ileum, caecum with appendix,

ascending colon, omentum, and mesentery (Figure 3). Ipsilateral testis was markedly reduced in size. There were no signs of ischemia or any adhesions. Widening of deep inguinal ring was done, and reduction of contents into abdominal cavity was achieved. Right orchidectomy with the double-layered closure by prolene was done followed by reconstruction of the scrotal wall. Postoperatively, patient had massive scrotal edema which was managed conservatively, and he was regularly attending our follow-up clinics for the last 2 years.

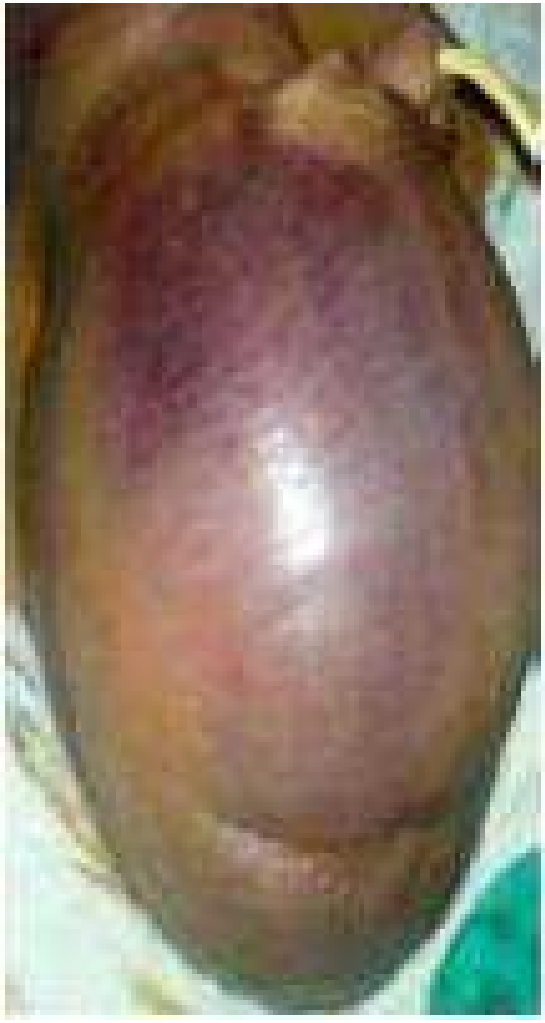

Figure 1: Giant Hernia with Buried Penis

Figure 2: Giant Hernia with Inguinal Contents

Figure 3: Contents of Giant Inguinoscrotal Hernia

Discussion

Giant hernias are rare in present times. They are present due to neglect (Patsas et al. 2010). The use of local anesthesia for hernioplasty techniques that encourage patients to undergo an operation shortly after diagnosis leads to rare occurrence of giant inguinal hernia today. The patient may remain asymptomatic or present with acute renal failure, perforation with concomitant peritonitis (Goonetille et al. 2010 and Gaedecke et al. 2013). In such giant hernia, ulceration, dermatitis, or candidiasis of scrotal skin could usually lead patients to seek medical care. There is a case report in which the incident of a gastric rupture in context with a giant left scrotal hernia has occurred (Walgenbach et al. 2001). Walking, sitting, simply lying down, and voiding may become extremely difficult for the patient. Penis could be buried,

and only one testicle could be palpated. Usual content is gut, and sometimes the entire mesenteric small bowel and the entire colon may be lodged appendix, omentum, or bladder (Conda Sanchez et al. 2001 and Tahir et al. 2008). Rarely malrotated intestine could be present in a giant inguinal hernia (Lee 2012).

Due to rarity of condition, repair of giant inguinal hernia is always challenging, demanding to the surgeon, and stressful to the patient. Surgical management has to be tailored to the individual situation of the patient using all therapeutic options (Zippel et al. 2001). Loss of domain, recurrence and residual scrotal skin, and scrotal hematoma are the major problems encountered in management of such hernias (Coetzee 2011). A proper preoperative preparation for surgery in patients with giant hernias is desirable, especially involving respiratory status.

In elective repair, preoperative use of progressive pneumoperitoneum is effective in the treatment of large inguinal hernias (Piskin et al. 2010). Creation of pneumoperitoneum leads to optimal space for reduction of herniated contents into abdominal cavity and avoids abdominal morbidity in form of bowel resection, abdominal compartment, and extended abdominal wall reconstruction by the use of mesh (Vasiliadis et al. 2010). Laparoscopic component separation technique has been recommended to increase the capacity of the abdominal cavity to facilitate closure and reduce postoperative complications in patients who had loss of domain (Hamad et al. 2013).

El-Dessouki (2001) presented a technique for giant inguinal hernia in which hernia sac is pulled up to the abdomen and

fashioned as a rotation flap to augment and close the peritoneum over the replaced contents; a giant polypropylene mesh is inserted in the preperitoneal space to cover the midline defect created and to buttress both inguinal regions. Zuvela et al. (2003) described the Rives technique (direct inguinal approach) in the treatment of large inguinoscrotal and recurrent hernias. Merret et al. (2009) advocated a technique for giant inguinal hernia involving the reduction of hernia; the repair of hernial orifices with Marlex mesh and the creation of a midline abdominal wall defect to increase the intra-abdominal capacity followed by covering this defect with Marlex mesh with a rotation flap of inguinoscrotal skin. Lichtenstein technique has also been advocated for repair of giant inguinal hernia (Bierca et al. 2013). A multistage operation for giant inguinal hernia with scrotal ulcer has been recommended where insufflation and prosthetic mesh

are not available. In first stage, resection of ulcer and surrounding scrotal skin and partial reduction of hernia sac content are done. Partial reduction of hernia sac contents and resection of scrotal skins are done in stage two. In the last stage, bowel resection, ileocolic anastomosis, hernia repair, and resection of scrotal skin are done (Groen et al. 2011).

In an emergency, surgical treatment of giant abdominal hernias includes reduction of the hernia content and tension-free closure of the abdominal wall. Surgical treatment in complicated cases may require debulking the contents of the hernia sac by performing a right hemicolectomy and a small bowel resection and reconstruction of the abdominal wall using Marlex mesh and a tensor fasciae latae flap (Mehendal et al. 2000 and Goonetilleke et al. 2010). Inguinal incision aided by midline infraumbilical

incision aids in the reduction of contents into abdominal cavity in giant inguinal hernia (Tahir et al. 2010).

Conclusion

Giant inguinal hernia presenting as intestinal obstruction is rare. Reduction of contents into abdominal cavity in giant inguinal hernia may be done by enlarging internal ring.

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