CASE REPORT

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Spontaneous Rupture of Incisional Hernia – A Rare Entity

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Abstract

Background: Spontaneous rupture of an abdominal hernia is very rare and usually occurs in incisional or recurrent groin hernia. It is a potentially fatal but preventable clinical condition demanding emergency surgery to prevent further obstruction, strangulation of bowel and to cover its contents to prevent fistulisation. It should be managed by primary repair if there is only minimal contamination, and by secondary repair if grossly contaminated.

Case report: We present the case of a 55-year-old lady admitted to the surgery department with ruptured incisional hernia and evisceration of the small gut through the lower half of an infraumbilical vertical scar from a total abdominal hysterectomy performed six years earlier.

Results: After dealing with the exposed contents, the gap in the rectus sheath was repaired anatomically by multiple 'X' sutures with no. 1 polypropylene [1]. After an uneventful recovery, the patient was discharged on the eleventh postoperative day. After one year of follow-up, no complication or recurrence has been noted.

Conclusion: Early surgical correction is the treatment of choice in the case of ruptured incisional hernia. Timely surgical intervention is always recommended in cases of incisional hernias to prevent this rare but potentially fatal complication.

Key words: *Incisional hernia; spontaneous rupture; complications; X-suture*

Introduction

An incisional hernia is caused by the escape of organs from their physiological position through an area of weakness in a surgical scar. Spontaneous rupture of an abdominal hernia is very rare and usually occurs in incisional and recurrent groin hernia [2]. Only a few cases of spontaneous rupture of an abdominal hernia are reported in the literature. The site of rupture differs among different studies. Hartley RC (1962) [3] and Hamilton RW (1966)[4] reported rupture through the lower midline incision, while Aggarwal PK (1986) [5] found herniation after upper abdominal surgery for a perforated duodenal ulcer.

Case report

A 55-year-old lady was admitted to the surgery department of Murshidabad Medical College and Hospital with spontaneous rupture of an incisional hernia with evisceration of the small gut. The patient had a five-year history of an incisional hernia through the lower half of an infraumbilical vertical incisional scar from a total abdominal hysterectomy performed six years earlier. The patient was haemodynamically stable with no signs of intestinal obstruction but was in sepsis. The exposed gut loops were engorged, oedematous and adhered to each other, but no perforation was noted. (Figure 1) A gap measuring approximately 6 cm in diameter was noted in the rectus sheath.

She was placed under spinal anaesthesia, the incision was extended vertically up and down from both ends of the ruptured skin, the neck dissected, and the unhealthy skin densely adhered to the containing small gut dissected and excised. During this procedure, a small gut injury occurred measuring 1 cm in length and of full thickness, which was repaired primarily. The gut was reduced and covered with omentum. The recti were approximated and the anterior rectus sheath was adequately mobilised and repaired by multiple 'X' sutures with no. 1 polypropylene.[1] The skin was closed after excising the redundant part and placing a drain beneath it. The postoperative period was uneventful and the patient was discharged home on the eleventh postoperative day and remains without recurrence at 1-year follow-up.

Discussion

Complications, such as adhesions, incarceration of the

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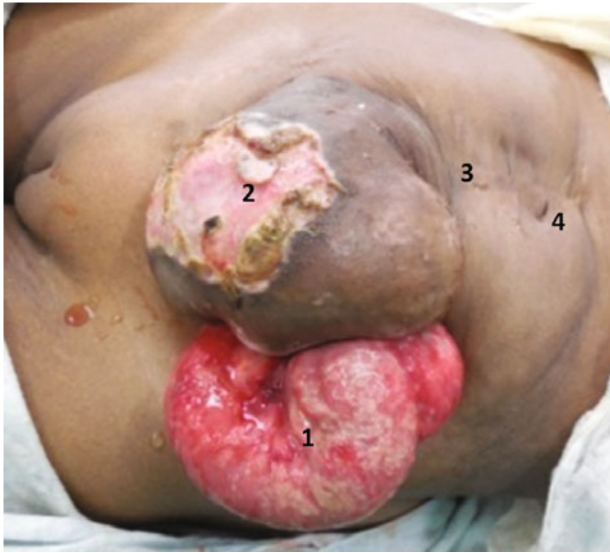

Figure 1. showing: 1. Exposed small gut through the ruptured skin of the incisional hernia. 2. Excoriated thinned-out skin covering the incisional hernia. 3. Part of the incisional scar through which the gut has herniated. 4. The umbilicus.

bowel and intestinal obstruction, are well documented in association with incisional hernia but spontaneous rupture is very rarely reported in the literature [4,6]. Although in theory, spontaneous rupture can occur with any type of abdominal hernia, it is more commonly reported in incisional herniae. The large incisional hernia is contained only by its sac and thin atrophic skin. The larger the hernia, the more atrophic and hypovascular the overlying skin, and this along with a thin sac leads to higher chances of rupture of incisional hernia [4]. Neglect for early operative intervention or delay in seeking the treatment for incisional hernia increases the risk of rupture [6,7]. The rupture may be sudden, following any event that can increase intra-abdominal pressure like coughing, lifting a heavy weight, straining at defaecation and micturition, or it may be gradual after developing an ulcer at the fundus [4]. Other factors which can contribute to rupture of a hernia are friction by the patient's external corset or abdominal support, lack of adhesions between the bowel, and the hernial sac allowing the bowel to act as a hammerhead upon the skin [3]. In our case, rupture of the incisional hernia occurred because of ulceration and necrosis of the thin atrophic avascular skin covering the hernia. Delay in seeking prior surgical treatment for incisional hernia was also a contributory factor. Rupture of an abdominal hernia demands emergency surgery to prevent further obstruction, strangulation of the bowel and to cover its contents to prevent fistulisation. The hernial contents can be covered primarily by mesh repair, if the general condition of the patient and local condition of the operative site allows, or can be covered by skin followed by delayed mesh repair [8]. In our case, since there was a gut injury leading to some local contamination, we did not opt for synthetic mesh repair; we chose to approximate the recti, mobilise the anterior rectus sheath and proceed to repair using multiple 'X' sutures with no. 1 polypropylene [1] taking 1cm of healthy tissue from the margin of the gap on either side. The vertical disposition of the previous scar and the resulting gap also facilitated this decision. However, despite its cost and non-availability outside urban advanced centres, a biological mesh can be used even in a septic field without much complication.

Conclusion

Spontaneous rupture of an abdominal hernia is a very rare complication and it usually occurs in incisional and recurrent groin hernia. The rupture of an abdominal hernia demands emergency surgery. This case is presented for its rarity and to emphasize the need for early operative intervention to prevent this rare but avoidable complication of incisional hernia.

Declaration

The authors declare that this article has not been published in any journal as yet.

Conflicts of Interest

The authors declare that they have no conflict of interest in writing this case report.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the editor-in-chief of this journal on request.

Acknowledgement

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