Spontaneous Rupture of Incisional Hernia—A Case Report

John J. S. Martis · Kalpana M. Shridhar ·
K. V. Rajeshwara · Deepak Janardhanan ·
Dayanand Jairaj

Received: 18 December 2008 / Accepted: 2 January 2009 / Published online: 16 November 2010
© Association of Surgeons of India 2010

Abstract Spontaneous rupture of an abdominal hernia is very rare and usually occurs in incisional or recurrent groin hernia. The rupture of abdominal hernia demands emergency surgery, to prevent further obstruction, strangulation of bowel and to cover its contents. 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. We report a case of spontaneous rupture of incisional hernia in a 60 years old lady who had developed incisional hernia following tubectomy and managed by mesh repair.

Keywords Spontaneous rupture · Incisional hernia

Introduction

An incisional hernia is represented by escape of organs from their physiologic position through an area of weakness in the surgical scar. Spontaneous rupture of abdominal hernia is very rare and usually occurs in incisional and recurrent groin hernia [1]. Only few cases of spontaneous rupture of abdominal hernia are reported in the literature. The site of rupture is different in different studies. Hartley RC (1962) [4] and Hamilton RW (1966) [6] reported rupture through lower midline incision, while Aggarwal PK (1986) [3] found herniation after upper abdominal

surgery following perforated duodenal ulcer. We report a case of spontaneous rupture of incisional hernia in a 60 years old lady who had developed incisional hernia following tubectomy.

Case Report

A 60 years old lady presented in casualty with ruptured incisional hernia following a bout of cough. She had developed incisional hernia following tubectomy since the age of 30 years. She was advised surgery for incisional hernia in the past but refused to undergo the same.

On general examination she was afebrile with normal haemodynamic status. On examination of the abdomen it was found that about 3 feet of bowel was out side, which was healthy but slightly oedematous. The incisional hernia was large and the skin over the hernial sac was atrophic, depigmented and thinned out with an ulcer (Fig. 1).

Emergency surgery was planned and the patient was shifted to operation theatre. At operation the defect was enlarged, bowel repositioned into the peritoneal cavity after washing with normal saline. After removing all the atrophic avascular and scarred skin, hernia repair was done using prolene mesh (Figs. 2 & 3). Post operative period was uneventful. Sutures were removed on the 10th post operative day. Wound healed well without any infection. After 3 months of follow up patient was asymptomatic.

Discussion

Complications such as adhesions, incarceration of bowel and intestinal obstruction are well documented in

J. J. S. Martis (✉) · K. M. Shridhar · K. V. Rajeshwara ·
D. Janardhanan · D. Jairaj
Fr. Muller Medical College Hospital,
Mangalore, Karnataka, India
e-mail: martisjohn@yahoo.co.in

Fig. 1 Bowel protruding through the defect in the hernial sac

Fig. 3 Skin closure following mesh repair

association with incisional hernia but spontaneous rupture very rarely reported in literature [2, 6]. Although theoretically spontaneous rupture can occur with any type of abdominal hernia but it is more commonly reported in incisional hernia [7].

The large incisional hernia is contained only by its sac and thin atrophic avascular skin. Larger the hernia more atrophic and avascular is the overlying skin and this along with thin sac leads to higher chances of rupture of incisional hernia [6]. Neglect for early operative intervention or delay in seeking the treatment for incisional hernia increases the risk of rupture [2, 5]. The rupture may be sudden following any event which can increase the intra-

abdominal pressure like coughing, lifting heavy weight, straining at defecation and micturation or it may be gradual after developing an ulcer at the fundus [6]. 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 [4]. In our case rupture of incisional hernia occurred because of sudden increase in intra-abdominal pressure due to excessive coughing and thin atrophic avascular skin covering of the hernia. Delay in seeking prior surgical treatment for incisional hernia was also a contributed factor.

Rupture of abdominal hernia demands emergency operation to prevent further obstruction, strangulation of bowel and cover its contents. 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].

Fig. 2 Hernia repair with prolene mesh

Conclusion

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

References

1. Zinner MJ, Schwartz SI, Ellis H (1997) Incisions, Closures, and management of the wound. *Maingot's abdominal surgery*. Vol. 1, 10th edn. Appleton and Lange, USA, p 423
2. Singla SL, Kalra U, Singh B, Naraula S, Dahiy P (1997) Ruptured incisional hernia. *Trop Doct* 27(2):112–113
3. Aggarwal PK (1986) Spontaneous rupture of incisional hernia. *Br J Clin Pract* 40(10):443–444
4. Hartley RC (1961) Spontaneous rupture of incisional hernia. *Br J Surg* 49:617–618
5. Mudge M, Hughes LE (1985) Incisional hernia: a 10 year prospective study of incidence and attitudes. *Br J Surg* 72:70–71
6. Hamilton RW (1966) Spontaneous rupture of incisional hernia. *Br J Surg* 53:477–479
7. Ogundiran TO, Ayantunde AA, Akute OO (2001) Spontaneous rupture of incisional hernia—a case report. *West Afr J Med* 20(2):176–178
8. Sagar J, Sagar B, Shah DK (2005) Spontaneous rupture of incisional hernia. *Indian J Surg* 67(5):280–281