

## Case Report

# Spontaneous rupture of incisional hernia: A rare life-threatening complication of incisional hernia

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### Abstract

An incisional hernia develops in the scar of a surgical incision. Spontaneous rupture of an abdominal hernia is very rare and usually occurs in incisional or recurrent groin hernia. This is a report of 50-year-old female who presented with sudden spontaneous rupture of an incisional hernia. This hernia was repaired by mesh repair after repositioning the bowel into the peritoneal cavity and excising the excess atrophied skin. The patient recovered well and was discharge after the 4th day. Spontaneous rupture of abdominal hernia is a very rare complication. It is a potentially fatal but preventable clinical condition and should be managed by primary repair if there is only minimal contamination and by secondary repair if grossly contaminated.

**Keywords:** Incisional hernia, Spontaneous rupture, Complication

## 1. Introduction

Incisional hernia is the failure of the abdominal wall fascia to heal properly after laparotomy and is an important postoperative problem. Rarely, a particularly thin-walled large incisional hernia may actually ulcerate at its fundus so that omentum or bowel protrudes or there is even the development of an intestinal fistula. Spontaneous rupture of abdominal hernia is very rare and usually occurs in incisional and recurrent groin hernia.<sup>1</sup> These cases should be managed by primary repair if there is no gangrenous segment and the contamination is minimal, or by delayed repair if there is gross contamination and resection and if anastomosis is required. We present one such case in an elderly female who underwent laparotomy and developed rupture of incisional hernia.

## 2. Case report

A 50 years old lady presented to emergency with sudden evisceration of small bowel from incisional hernia scar after lifting heavy weight. She had developed incisional hernia following hysterectomy 10 years back. She was advised surgery for incisional hernia in the past but refused to undergo the same.

On general examination she was afebrile and haemodynamically stable. On abdominal examination the skin overlying the infra-umbilical midline incisional hernia was thinned out and a perforation of about 2 cm was seen in the skin and about a foot of small intestine loop was protruding outside through the defect. The bowel loop was congested but healthy (Figure 1, 2). Otherwise, the hernia was non-tender and reducible through a wide, easily palpable defect in the abdominal wall. The patient was diagnosed with ruptured incisional hernia. She was resuscitated with intravenous fluid and

nasogastric decompression, and then she was taken to the emergency 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. Post operative period was uneventful. Sutures were removed on the 10th post-operative day. Wound healed well without any infection. After 6 months of follow up patient was asymptomatic without recurrence.

**Figure 1** Abdominal examination the skin



**Figure 2** Showing infra-umbilical midline incisional hernia



### 3. Discussion

Incisional hernia is common and it may complicate up to 11% of abdominal wounds after 10 years.<sup>2</sup> There is equal incidence in male and female. It occurs most commonly in lower midline abdominal incisions but can occur at the site of any incision. Risk factors are poor surgical techniques like incorrectly placed incision, inadequate wound closure, haematoma, necrosis, sepsis, placing drains or stomas through wounds, age, diabetes, jaundice, renal failure, obesity, malignancy, gross abdominal distension due to obstruction or ascites. In incisional hernia the hernial sac protrudes through the scar. It represents a partial wound dehiscence where the deep layers of the abdominal wall separate, but the skin remains intact. 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. Complications such as adhesions, incarceration of bowel and intestinal obstruction are well documented in association with incisional hernia but spontaneous rupture is very rarely reported in literature.<sup>3</sup> Although theoretically spontaneous rupture can occur with any type of abdominal hernia but it is more commonly reported in incisional hernia.<sup>4</sup> This rupture may be sudden following increase in the intra-abdominal pressure like coughing or lifting a heavy weight, or it may be gradual after developing an ulcer at the fundus of the sac.<sup>5</sup>

In our case, rupture of the hernial sac occurred because of sudden increase in intra-abdominal pressure while lifting heavy weight. Neglect for early operative intervention or delay in seeking the treatment for incisional hernia increases the risk of rupture.<sup>6</sup> 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.<sup>7</sup> The aim of this case report is to draw attention to this exceptional but avoidable complication of incisional hernia. We strongly emphasize early operative intervention in such cases, not only in developed countries but also in developing countries.

### References

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