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## Spontaneous evisceration through an incisional hernia: A rare complication in surgical practice

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### ABSTRACT

Incisional hernias complicate 2%–20% of laparotomies. They rarely eviscerate spontaneously, and when they do they pose a serious threat to the protruding bowel and the patient's life if timely intervention is not instituted. We reported a case of spontaneous rupture of an incisional hernia in a 56 years old female who underwent laparotomy twenty years before presentation to the Accident and Emergency Department of Cape Coast Teaching Hospital. She presented with a 4-h history of evisceration of bowel after bouts of cough. An emergency laparotomy and hernia repair was done after initial resuscitation. The patient's recovery was uneventful and shortly after tested positive for HIV I. She was however lost to follow up. Neglect for early operative intervention or delay in seeking the treatment for an incisional hernia increases the risk of rupture.

## 1. Introduction

An incisional hernia is a partial internal abdominal wall defect that is in close proximity to the scar of a previously closed full thickness ventral abdominal wall incision<sup>[1]</sup>. They continue to be a significant problem for patients as well as surgeons, complicating between 2% and 20% of laparotomies<sup>[2,3]</sup>. The highest incidence occurs following lower midline or transverse incisions<sup>[1]</sup>. Spontaneous evisceration is a rare but serious complication of an incisional ventral hernia<sup>[2–4]</sup>. Particularly, thin-walled large incisional hernia may ulcerate at its fundus so that omentum/bowel protrudes through the defect<sup>[4]</sup>.

We reported a case of spontaneous rupture of an incisional hernia in a 56-year-old female who underwent laparotomy twenty years before presentation.

## 2. Case report

The middle aged woman presented to the Accident and Emergency Centre of the Cape Coast Teaching Hospital with an

acute abdominal pain, vomiting and protrusion of viscus through an incisional hernia. She initially tried reducing the eviscerated viscus, but to no avail and reported to the hospital about 4 h after the incident occurred. She had five episodes of vomiting which initially contained clear secretions that subsequently became bilious. Three days prior to the presentation, she noticed an ulcer distal to the site of the scar which was subsequently associated with swelling and a foul smelling discharge. The past medical history revealed the patient had an abdominal surgery over 20 years prior to presentation (the indication and details of the procedure was unclear). Two years after the surgery, she developed two protrusions in her lower abdomen in proximity to the scar. There was no history of trauma or application of herbal medicine on the hernia. She also reported a chronic cough with associated weight loss over a six-month period.

Clinically, the patient appeared cachectic and mildly dehydrated. She was pale, afebrile and hemodynamically stable. Abdominal examination revealed generalized tenderness. There was a subumbilical midline scar. About 40 cm of the small intestine was protruding through the anterior abdominal wall, and these loops were congested but healthy at large (Figure 1). There was a discharge of serosanguinous fluid, mildly offensive. Just superior to the eviscerated bowel was an intact incisional hernia, about 10 cm diameter. A hernia was nontender and was reducible through a wide, easily palpable defect (about 4 cm) in the anterior abdominal wall (Figure 1). The skin overlying the hernia was thinned out.

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**Figure 1.** Photograph showed ruptured incisional hernia with bowel evisceration at presentation.

The patient was diagnosed with a ruptured incisional hernia and was planned for an emergency exploration after resuscitation. Hematological examination revealed hemoglobin of 11.1 g/dL, white blood cell count was  $8 \times 10^9/L$  and platelets  $238 \times 10^3/L$ . The patient was rehydrated with intravenous fluids until urinary output was adequate. Intravenous antibiotics (ceftriaxone, ciprofloxacin, and metronidazole) and an analgesics (paracetamol) were given as the patient was prepared for surgical intervention. Laparotomy was done and extensive adhesions between bowel and the anterior abdominal wall were noted. The eviscerated loops of bowel were identified as ileal loops which remained viable. Some adhesiolysis was done and the abnormal fascia was excised. The bowel was then returned into the peritoneal cavity and the fascia closed with nylon 2. Excess lax and thinned out skin was trimmed and the skin closed with vicryl 0. Recovery was uneventful. An HIV serological test done after patient's consent was obtained turned out to be positive for HIV I. She was counseled referred to the medical team for management of the HIV infection. The patient was discharged on the 4th postoperative day and was to dress wound daily at a nearby clinic. She was to return on the 10th postoperative day for review and removal of stitches. Patient was lost to follow-up upon discharge from the hospital.

### 3. Discussion

A large incisional hernia is usually contained by a thin hernia sac and atrophic a vascular skin<sup>[5]</sup>. The continuous friction between a hernia and the abdominal wall, the hernia and external garments, in combination with moisture and warmth, is likely to cause dermatitis and lead to ulceration. In addition, some patients may apply traditional herbal medicines in an attempt to treat a hernia, and this often causes inflammation, necrosis and sometimes gangrene of the skin resulting in ulcers which may precipitate spontaneous rupture of a hernia<sup>[5-8]</sup>. The rupture may be sudden following an increase in intra-

abdominal pressure such as during bouts of cough, straining at defecation and micturition, during pregnancy and vaginal deliveries, and lifting heavy weights<sup>[6,7]</sup>.

In our patient, the rupture was probably precipitated by damage to the overlying skin which was stretched, thinned and ulcerated. The immediate precipitant for our patient, however, was likely to be a sudden increase in intra-abdominal pressure due to a chronic cough. Though poor wound healing has been associated with immunodeficiency states<sup>[9]</sup>, the role of HIV infection as a risk factor for the spontaneous rupture of an incisional hernia is unclear and needs to be further evaluated.

Neglect for early surgical intervention for incisional hernias increases the risk of many avoidable complications including evisceration. Early repair of incisional hernias is therefore advocated to prevent associated morbidity. Once ruptured, primary repair is should be done if no gangrenous or gross contamination is found at laparotomy.

### Conflict of interest statement

The authors report no conflict of interest.

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