CASE REPORT

SPONTANEOUS RUPTURE: AN UNCOMMON COMPLICATION OF VENTRAL HERNIA

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ABSTRACT

BACKGROUND: Literature is scarce about spontaneous rupture of hernia because spontaneous rupture of here is uncommon (1). Reported cases are complications of incisional hernias, recurrent inguinal hernia, and umbilical hernias. It is potentially life threatening (1) because the ensuing entrapment and tension on bowel mesentery may lead to vasovagal shock or strangulation.
In addition to systemic problems and increased intra-abdominal pressure that lead to the herniation, the spontaneous rupture and evisceration is usually preceded by other factors such as inflammation that weaken the hernia covering (1, 2).We a report a case of spontaneous rupture of an incisional ventral hernia referred to the University of Ilorin teaching hospital.
KEYWORDS:--spontaneous, rupture, incisional, hernia, pathogenesis

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CASE REPORT

The patient was a 34 year old petty trader who presented at our emergency department (ED). She was referred from a private hospital where she had two previous abdominal operations. The reason for referral was evisceration of her bowel loops through a defect in a previous abdominal incision scar.

She was a multiparous woman who had two previous caesarean sections through the same lower midline abdominal incision. The later of the two operations was 10 months before the index presentation and the indication was transverse lie of the fetus. Five days after the later operation, she noticed serosanguinous discharge from the wound which was diagnosed as surgical site infection. After the removal of the wound stitches at the 8th postoperative day, there was dehiscence of the wound which was treated with gauze dressing until epithelialization. Six months later, she noticed a painless bulge in the distal half of the scar and a diagnosis of incisional hernia was made. Repair of the hernia was delayed due to uncontrolled hypertensive heart disease.

Earlier on the day of presentation at our ED, she had felt a "give" in her abdomen and dampening of her clothes while having an unheated conversation with one of her customers. She also noticed that the bulge which she had formed in the previous operation scar about four months earlier had become unusually painful. She was alarmed but did not report to the hospital until the evisceration became apparent later the same day after she felt another "give" while attempting to lift a 25L keg of water. This prompted her to report to the referring hospital where the exposed bowel was packed with damp sterile gauze and supported with a gauze sling (Figure1). Prior to the day of presentation, she had not experienced pain in the bulge; there had been no ulceration of the skin, and there had been no discharge from the bulge. On examination, she was calm and her vital signs were within normal limits. Abdominal examination revealed bowel loops protruding through the distal part of a lower midline hypertrophic scar (Figure1).

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Fig 1: Eviscerated bowel loops protected from desiccation with damp sterile gauze and supported by a gauze sling to prevent vasovagal shock and mesenteric vascular spasm

She had an emergency exploration. At exploration, about 40cm of bruised but viable ileal loop was found protruding through a rent in the distal part of the previous operation scar. The rent in the scar was about 3-5cm. The midline defect in the fascia through which the herniation formed was 10cm long. The covering skin was paper thin and there were no suture fragments on the fascia.

The eviscerated bowel loops were irrigated and returned to the abdominal cavity. The facial edge was redefined and the defect was closed with non-absorbable interrupted stitches. The redundant skin was excised before the skin was closed primarily. She was followed up for over 12 months without evidence of recurrence.

DISCUSSION

In adult surgical practice, the common causes of evisceration are burst abdomen, stab, and gunshot abdominal injuries. Rarely, spontaneous rupture of hernia also presents with evisceration (1-3). This report is one of such rare cases

In this report, the factors that contributed to the formation of ventral hernia were reopening of previous scar at a second cesarean operation, use of non-absorbable suture for fascia repair, and unrecognized complete dehiscence that was dressed to epithelialization-an inadvertent open-abdomen-like therapy. Spontaneous ruptures of incisional hernias are rare (1, 2, 4). Before this case, we had not encountered spontaneous rupture of an incisional or ventral hernia in our practice, but in the future, we suspect that we may encounter more of such cases because the inadvertent management of complete dehiscence with daily dressing until epithelialization that led to an incisional hernia with a thin covering in this patient is now intentionally employed in the management of some critically ill patients that develop complete abdominal wound dehiscence.

The preferred management of complete abdominal wound dehiscence is immediate closure. However, in some of our patients, the risk of reoperation is not permissive. In such patients, if the exposed bowel is physiologically fixed by postoperative fibrinous adhesions; a state described as impenetrable visceral block by Schecter et al. (5), as a last resort we employed the open-abdomen like therapy where we allowed granulation tissue and epithelialization to form over the exposed bowel thereby converting it to a ventral hernia. This management is akin to treatment of enteroatmospheric fistula and sometimes abdominal compartment syndrome following trauma or abdominal sepsis (5, 6).

Irrespective of the pathogenesis of the ventral hernia, a factor that increases the risk of rupture is delayed repair of the defect (1, 2). In our patient, the cause of the delay was medical. The more common causes of delay are neglect of the defect, fear or unwillingness to undergo another major surgical operation, and financial constraints. The delay in repair leads to worsening of the protrusion and attenuation of the covering from pressure, stretching and ischemia (1, 3, 7).

This report adds to the scarce literature about spontaneous rupture of hernia; it reiterates the importance prompt repair and the use of non-absorbable sutures for abdominal fascia closure. This report also exposes the open-abdomen like treatment of complete dehiscence as probable pathogenesis for more cases of ruptured ventral hernia in the future.

Spontaneous rupture of hernia is an uncommon presentation. We have reported a case of incisional hernia arising from open abdomen-like treatment of complete abdominal wound dehiscence: a probable pathogenesis of future occurrences.

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