SPONTANEOUS RUPTURE OF INCISIONAL HERNIA: A CASE REPORT.

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ABSTRACT.

Background:

Spontaneous rupture with bowel evisceration is an uncommon feature of incisional hernia. There is increased risk of morbidity and mortality.

Aim: To report a rare clinical condition in which there was a spontaneous rupture of an abdominal incisional hernia and to increase awareness of this condition in our environment.

Case Report: A 31yr old woman presented with a history of loop of intestine protruding from a previous surgical scar in the lower abdomen. She had a colicky, and generalised abdominal pains, with vomiting of recently ingested food, progressive abdominal distention and constipation. She had had five previous Caesarian Sections. On examination she had about 15 centimeters of a loop of ileum eviscerated. Exploratory laparotomy after resuscitation revealed ileal herniation approximately 30 cm from the ileo-ceacal valve. A bowel resection, ileo-ileal anastomosis and a vertical Mayo's repair of the hernia were carried out. Her post-operative period was uneventful.

Conclusion: Spontaneous rupture of incisional hernia, a distressing clinical condition is uncommon and it is reported with the hope of increasing the awareness and possibly prevent this avoidable uncommon complication.

Keywords: Spontaneous rupture, incisional hernia, eviscerated bowel, vertical Mayo'sRepair.

INTRODUCTION:

Hernia is an abnormal protrusion of a viscus through a potentially weak point or opening. The word, hernia is derived from the Latin word for rupture. When a surgical scar is associated on the anterior abdominal wall, it is referred to as an incisional hernia. Therefore, an incision hernia is defined as an

abnormal protrusion of an organ or tissue through a surgical scarred defect in its surrounding walls. Few cases of spontaneous rupture of abdominal hernia are reported in the literature and the site of rupture also varies in reported cases; Hartley RC (1962) and Hamilton RW (1966) .

Case Report:

A 31 year old female presented to the Accident and Emergency Department of the University of Port Harcourt Teaching Hospital with a history of loop of intestine protruding from a defect in a previous surgical scar in the lower abdomen. She had colicky and generalised abdominal pains with repeated bouts of vomiting consisting of recently ingested food. There was a progressive abdominal distension, constipation and a high grade fever. She had had five previous Caesarian Sections. The last was about 10 months prior to presentation.There were no other significant symptoms elicited.

On examination she was dehydrated, febrile to touch, anicteric, no peripheral lymphadenopathy and no pitting pedal edema. Her respiratory rate was 24 cycles per minute, temperature was 380C, pulse was 96 beats per minute full volume and regular. Blood pressure was 150/90mmHg.

Abdominal examination revealed distended abdomen with an eviscerated and unhealthy loop of bowel fig 1. There was generalized tenderness with no organomegaly. The bowel sounds were present and hyperactive. Rectal examination revealed an empty rectum and the examining finger had no blood or mucous stain. The rest of the other systems were essentially normal.

A diagnosis of Spontaneous rupture of an incisional hernia with eviscerated loop of bowel was made. Investigations done included: Haemoglobin 11g/dl, Electrolyte Urea and Creatinine Na= 142mmol/l, k= 3.1mmol/l, Hco3= 24 mmol/l , Ur= 2.3mmol/l , Cr=75umol/l. Urinalysis showed normal findings .

She was commenced on intravenous antibiotics Ceftriaxone 1gm daily, Metronidazole 500mg 8hourly, Intravenous fluids and Analgesics, Nasogastric tube and Urethral Catheter were passed. Strict input and output monitoring and chatting of fluids were commenced. The eviscerated loop of intestine was clean and covered with gauze soaked in saline. She then had an emergency exploratory laparotomy after adequate resuscitation. At surgery, adhesions were released and the eviscerated bowel was resected enbloc and primary ileo-ileal anastomosis was done. A vertical Mayo's repair of the defect was done. Post-operatively, her outpatient follow-

Fig1. Bowel protruding through the defect in the hernial sac

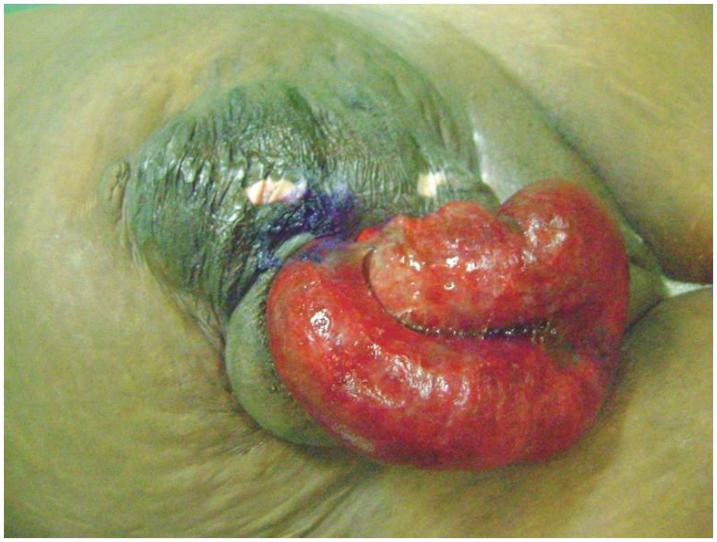


Fig2. Bowel protruding through the defect in the facial hernial sac with old nylon suture revealed.

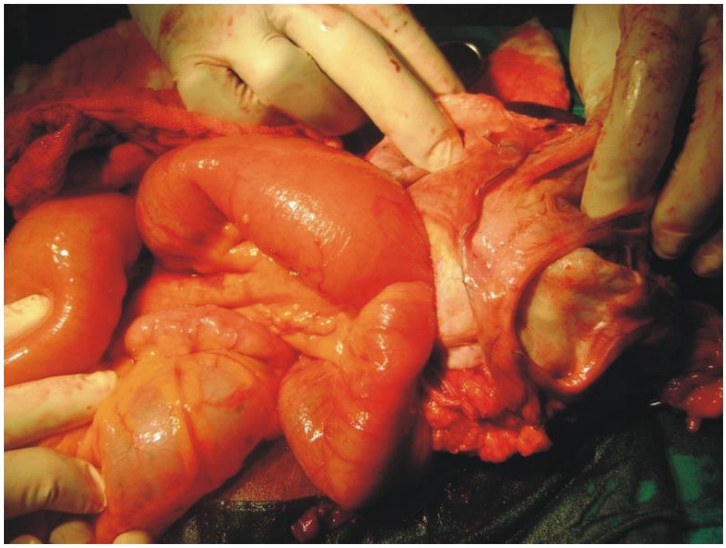
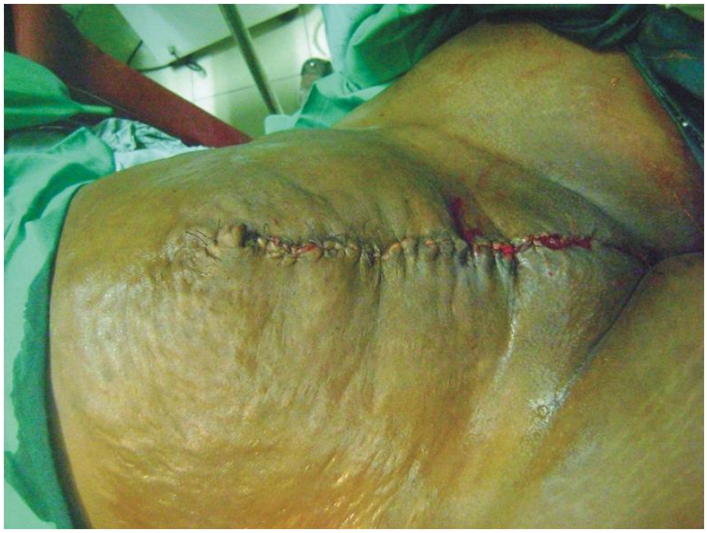


Fig 5. Skin closure following vertical Mayo's repair



DISCUSSION:

Spontaneous rupture of incisional hernia is rarely reported in literature3,. Complications such as adhesions, incarceration of bowel, intestinal obstruction, strangulation are well documented in association with incisional hernia5. It is known that spontaneous rupture could occur in any form of anterior abdominal hernia but it is more commonly reported in incisional hernia . Delay in early operative intervention or in seeking treatment for incisional hernia increases the risk of rupture4,. The rupture may be sudden following any event which can increase the intra-abdominal pressure such as coughing, lifting heavy weight, straining at defecation and micturation or it may be gradual after developing an ulcer at the fundus3. In our case, rupture of the incisional hernia may have occurred as a result of sudden increase in intra-abdominal pressure due to consumption of heavy meal, thin atrophic avascular skin covering of the hernia possibly from neglect and repeated abdominal operations. Poverty, ignorance and delay in seeking surgical treatment for the incisional hernia may have also contributed to the development of the ruptured incisional hernia.

Rupture of abdominal hernia requires an emergency operation to prevent further complications like obstruction and strangulation of bowel. A Mayo's technique or mesh repair could suffice if the general condition of the patient and the local condition of the operative site is satisfactory otherwise the defect could be covered by skin followed by a delayed mesh repair. In a report by John JSM et al, about 3 feet of viable bowel eviscerated in a ruptured sub-umbilical incisional hernia. The defect was repaired with a

mesh. In our case, the bowel was ischaemic and unhealthy, hence it was resected and a modified vertical Mayo's repair - right overlapping the left rectus sheath was carried out. Adotey et al reported evisceration of abdominal viscus through a ruptured incisional hernia following traditional abdominal massage in labour. This was different in our case in which hernia occurred spontaneously. Gupta RK et al reported spontaneous rupture of incisional hernia as a rare cause of a life-threatening complication. They concluded that spontaneous rupture of abdominal hernia is a very rare complication and could occur in cases of incisional hernias. All these cases should be managed by primary repair if there is no associated gangrenous loop of bowel and the contamination is minimal, or by delayed repair if there is gross contamination requiring resection and anastomosis.

Husain M et al, stated that neglect for early operative intervention or delay in seeking treatment increases the risk of rupture. An evaluation of risk factors for outcome showed that incisional hernia following Caesarean section vertical midline incision, wound infection, malnutrition and poor surgical technique are common. Other associated factors include additional operative procedure, presence of postoperative abdominal distension, intra-abdominal sepsis, residual intra-abdominal abscess, wound dehiscence and postoperative fever12

Spontaneous rupture of incisional hernia associated with pregnancy has not been reported as yet but incidences of isolated traumatic, septic and spontaneous rupture of incisional hernia have been reported. Sometimes the hernia sac may contain a gravid uterus.

In a review article in 2006 by Adotey JM on incisional hernia, the incidence is noted to have increased with increase in performance of major abdominal surgery. The outstanding and the most consistent causative factor of incisional hernia is wound infection.

Direct suture is ideal only for smallest of defects when easy apposition of the edges can be archieved. Mesh repair with non-absorbable polypropylene material is recommended as the standard method for large defects. Mesh repair could be open or laparoscopic. In cases of complications like rupture, repair will vary pending on the finding, the expertise and facilities available.

Conclusion:

Spontaneous rupture of incisional hernia, a distressing clinical condition is uncommon and it is reported with the hope of increasing the awareness and possibly prevent this avoidable complication.

References.

1. Alade RB, Itayemi SO, Alufohai E. Hernia in: Adeloye, A. ed. Davey's Companion to surgery in Africa. 2nd ed. Church Hill Livingstone, Edinburgh, London Melbourne and New York 1987.

2. Hartley RC. Spontaneous rupture of incisional hernia. Br J Surg. 1961; 49:617

3. Hamilton RW. Spontaneous rupture of incisional hernia. Br J Surg. 1966; 53:477–479

4. Singla SL, Kalra U, Singh B, Naraula S, Dahiy P. Ruptured incisional hernia. Trop Doct. 1997;27(2):112–113

5. Ogundiran TO, Ayantunde AA, Akute OO. Spontaneous rupture of incisional hernia—a case report. West Afr J Med. 2001;20(2):176–178

6. Mudge M, Hughes LE. Incisional hernia: a 10 year prospective study of incidence and attitudes. Br J Surg. 1985;72:70–71

7. Sagar J, Sagar B, Shah DK. Spontaneous rupture of incisional hernia. Indian J Surg. 2005;67(5):280–281.

8. John JSM, Kalpana MS, Rajeshwara KV, Deepak J, Dayanand J

Spontaneous Rupture of Incisional Hernia—A Case Report Indian J Surg. 2011 January; 73(1): 68–70

9. Adotey JM, Akani CI, Ikimalo JI Evisceration of abdominal viscus through a ruptured incisional hernia following traditional abdominal massage in labour. Mlj. 2005;44 (6): 35-36.

10. Gupta RK, Sah S, Agrawal SC. Spontaneous rupture of incisional hernia: a rare cause of a life-threatening complication. BMJ case rep. 2011; 3:

11. Husain M, Mohsin M, Mir IS, et al. Spontaneous rupture of incisional hernia: a case report. Internet J Surg 2007;11:2.

12. Ndubuisi E. Spontaneous rupture of an incisional hernia. Highland Med. J.2006;4: 86–8.

13. Radha S, Rao H, Shankaregowda S. A case of herniated gravid uterus through a laparotomy scar. Indian J. Med.Sci.2006;60: 154–57.