



Drain Site Hernia in an Adult: A Case Report

Hernie Sur Siege De Drain, A Propos D'I Cas

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ABSTRACT

BACKGROUND: Surgical drains, as useful as they are, have been noted not to be without complications. Small bowel herniation through a previous drain site is a rare complication of abdominal drain insertion.

OBJECTIVE: To report a case of strangulated hernia through a drain site.

METHODS: A 46-year-old civil servant was referred to our hospital from a general hospital with a two-week history of progressive abdominal pain and bulge in the right lower quadrant. She was evaluated clinically as with an ultrasonography. Results of tests indicated a laparotomy.

RESULTS: She had a previous abdominal drain insertion when she had an emergency exploratory laparotomy for perforated typhoid enteritis in the same hospital 20 years prior to presentation. Exploratory laparotomy done revealed gangrenous loops of small bowel that herniated through a previous drain site with interstitial spread. Resection and end-to-end anastomosis was effected and internal end was closed with non absorbable suture (Nylon 1). *WAJM 2010; 29(6): 429–431.*

CONCLUSION: Careful insertion and management of surgical drains are necessary so as to prevent hernia complications.

Keywords: Adult, Hernia, Nigeria, Surgical drain.

RÉSUMÉ

CONTEXTE : Les drains chirurgicaux, malgré leur grande utilité sont connus pour ne pas être dénués de complications. Une hernie de l'intestin grêle à travers un site antérieur de drain est une complication très rare des drains intra abdominaux.

OBJECTIF : Rapporter un cas de hernie étranglée à travers un site antérieur de drain.

METHODES: une femme de 46 ans, fonctionnaire de l'Etat, a été référée d'un centre hospitalier pour prise en charge de « douleurs abdominales évoluant depuis 2 semaines sans rémission, avec bombement au niveau du Quadrant inférieur droit ». Au décours des explorations, aussi bien clinique, qu'échotomographique la décision finale sera l'indication d'une laparotomie.

RESULTATS: Elle avait déjà eu 20ans auparavant, une mise en place de drain dans les suites d'une laparotomie en urgence, pour une perforation iléite typhique.

La laparotomie exploratrice effectuée, objectiva une gangrène sur bride de grêle qui avait herniée à travers le site antérieur du drain, avec propagation locorégionale. La résection suivie d'une anastomoses Termino-Terminale furent effectuées, et l'anse afférente suturée avec du fil non résorbable.

CONCLUSION : une mise en place prudente ainsi qu'une bonne prise en charge des drains chirurgicaux sont indispensables pour la prévention des complications de type herniaire. *WAJM 2010; 29 (6): 429–431.*

Mots clés : Adulte, Hernie, Nigeria, Drains chirurgicaux.

INTRODUCTION

An intra-peritoneal drain, when indicated, is usually inserted in abdominal surgery for the purpose of preventing fluid accumulation such as peritoneal fluid, blood or inflammatory exudates, and early detection of anastomotic leakage.^{1,2} However, such a drain has been noted not to be without complications such as secondary infection, intestinal perforation, adhesions, hemorrhage, and migration.¹⁻³ Small bowel herniation through the drain site is a rare and long term complication of abdominal drain insertion.⁴ We report a case of strangulated hernia through a drain site in a Nigerian woman

Case Report

AF was a 46-year-old female civil servant, was referred to our hospital from a general hospital with a two-week history of progressive abdominal pain and bulge in the right lower quadrant. She had had an emergency exploratory laparotomy for perforated typhoid enteritis in the same hospital 20 years prior to presentation. During that admission she had intra peritoneal drain insertion in the same area. The drain was said to have been removed five days after the operation and subsequently drain site healing was reportedly adequate within a week, without evidence of surgical site infection.

Physical examination showed an obese woman with BMI of 38. She was not pale and afebrile with a temperature of 37.2°C. The cardiopulmonary status was normal with a radial pulse rate of 80, blood pressure of 130/84mmHg. The lung fields were clear. The right lower abdomen was full, with a previous midline scar. There was a vague mass around the previous drain site (Fig 1) which had no positive cough impulse and was irreducible. The preoperative diagnostic dilemma allowed consideration for caecal mass, appendiceal mass and pedunculated uterine fibroid.

Haemogram and urine examination were normal. Abdomino-pelvic ultrasonography revealed a vague right iliac fossa mass with poor echogenicity. The abdominal pain, discomfort and mass remain the same after five days of antibiotics and rehydration. This necessitated

exploratory laparotomy, which was done after bowel preparation. Loops of small bowel were seen to have herniated through a previous drain site with interstitial spread (Fig 2). Eighteen centimeters of gangrenous herniated bowel was resected and an end to end anastomosis effected. The previous drain site (4cm internal diameter (Fig.3)) was closed with non absorbable suture (Nylon 1). Post-operatively, she did well and was discharged home on the 10th postoperative day. On follow up after 4 months of discharge she had no complaints and was doing well.

DISCUSSION

The efficacy and safety of using abdominal drains following abdominal surgery have been contentious.^{1,2} Drain site hernia after abdominal surgery is a long term and rare complication of drain insertion.⁵ However, a few cases have been reported in the past. Iwase *et al*⁶ reported an incarcerated perforated Richter's hernia through a drain site. Nomura *et al*⁷ reported two cases of bowel perforation due to pressure necrosis caused by open silicon drain. Commonly involved intestinal segments were small bowel and appendix.^{8,9} Increased morbidity and mortality have been noted in patients with drain site hernia especially if strangulation of the loops of bowel sets in.⁹⁻¹¹

Most reported cases involved a drain site with an external diameter of greater than 10mm and the herniation of loops of bowel commonly occur within two weeks of removal of the drain.¹² In this case the drain was removed 20years prior to development of symptoms. Perhaps, the herniation, which probably might have taken place shortly after removal of the drain, remained quiescent for 20 years.

Predisposing factors for herniation through a drain site include general debility, increased intra abdominal pressure and steroid administration.^{11, 13} Lee *et al*¹³ suggested that old age and long term steroid therapy may delay wound healing; interfere with fibrosis and adhesions around the drain site. Weakness of the wall as result of this interference and occasionally deposition of abnormal collagen may encourage



Fig. 1: Previous Drain Site Scar.

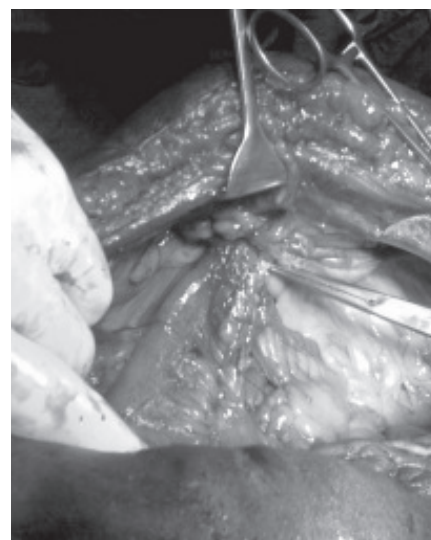


Fig. 2: Herniated Loops of Bowel



Fig. 3: Internal Opening of Previous Drain Site