



LARGE POST-SURGICAL INCISIONAL HERNIAS: CASE REPORTS AND A REVIEW OF BARRIERS AGAINST EARLY PRESENTATION AND REFUSAL TO CONSENT TO SURGERY

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ABSTRACT: *Incisional hernias, otherwise known as postoperative ventral hernias, are post-surgical fascial defects in the abdominal wall through which fat and viscera protrude. They are preventable causes of morbidity and mortality commonly encountered in our environment. Only a few patients with incisional hernia seek medical advice and only a handful of them consent to a surgical repair, even in the presence of complications, due to the high cost of treatment and disappointment from previous surgery. In this case series, two patients with complicated large long-standing post-surgical incisional hernias, who declined surgical repairs are presented, and the barriers to early presentation and factors responsible for refusal to consent to surgery in sub-Saharan Africa reviewed.*

KEYWORDS: Incisional Hernia, Complications, Surgical Repair, Consent.



INTRODUCTION

Incisional hernias occur due to a separation, weakness, or opening in the abdominal wall muscles or supporting structures of the abdominal wall in the region of a previous surgical incision.¹ These openings or separations widen over time, resulting in complications such as abdominal discomfort, abdominal pain, intestinal obstruction, and strangulation. Postoperative ventral hernias reduce the quality of life and productivity of the affected individuals.¹ They are common complications following abdominal surgery, with an incidence varying between 5% to 23% of all laparotomies.^{2,3}

Many factors may cause unsatisfactory wound healing resulting in the development of incisional hernias. Generally, these factors may be surgeon-related or patient-related. The surgeon-related factors include: emergency surgical procedures, midline incisions, poor surgical techniques, and closure of the rectus sheath with chromic catgut sutures or other inappropriate suture materials.^{1,4} The patient-related risk factors are: obesity, size of the abdominal wall defect, advanced age, prolonged use of steroids, malnutrition, diabetes mellitus, jaundice, and raised intra-abdominal pressure from any cause.^{1,4,5}

Incisional hernias become apparent within the first five years after the primary surgery⁴ but could take as long as 15 years to manifest.⁵ In sub-Saharan Africa, only a few patients with incisional hernias seek medical care, and only a very small fraction of them consent to surgical repair even when there are associated physical discomfort and complications.^{6,7}

Presented here are two cases of complicated large long-standing post-surgical incisional hernias that declined surgical repair despite associated complications. The barriers to early presentation and refusal to consent to surgery in our environment are also discussed.

CASE REPORTS

Case One

He was a 60-year-old man who presented with recurrent colicky abdominal pain and abdominal swelling of four years duration. He had a midline laparotomy for a perforated peptic ulcer disease in a private health facility 5 years earlier. On account of this, he presented to the same hospital two and a half years after the onset of the abdominal swelling and was counseled for surgical repair of the hernia, but he refused as he believed a second surgery on the same region would be fatal. He however resorted to herbal management of the large hernia. He presented to us when he started having more frequent abdominal pains lasting for about 4–8 hours. The physical examination revealed a broad-based midline surgical scar, measuring about 18cm in length with a huge abdominal bulge (**Figure 1**). The bulge measured about 18cm by 20cm with an abdominal wall defect of approximately 6cm by 8cm. Routine blood investigations were essentially within a normal range. He was subsequently counseled for a surgical repair of the incisional hernia but declined on the ground of trying non-surgical treatment options.

Case Two

A 46-year-old female patient, with a history of midline cesarean section on account of obstructed labour seven years earlier, complicated by wound dehiscence and surgical site infection. She presented to our accident and emergency room with recurrent abdominal

swelling of six years duration, colicky abdominal pain, and irreducibility of the abdominal swelling of 2 days prior to presentation. She was referred by her gynecologist as a case of acute abdomen and was admitted with a provisional diagnosis of adhesive small bowel obstruction. She noted that she had not sought any medical attention since the onset of the abdominal swelling as she was disappointed at the outcome of the cesarean section. She however had been patronizing herbal peddlers and prayer houses for a solution. Examination revealed a middle-aged woman in painful distress. She was afebrile and not pale. The pulse rate was 92 beats per minute, blood pressure was 110/80mmHg, and respiratory rate was 18 cycles per minute. Her chest was essentially clear and cardiac examination showed no abnormality. There was a markedly distended, tender, and pedunculated bulge at the superior aspect of the midline scar, with a lobulated outline (**Figures 2 and 3**) and hyperactive bowel sounds. Laboratory tests were within a normal range. She had a nasogastric tube passed to decompress the stomach and achieved a reduction of the swelling, subsequently. Following this, she refused surgery and requested discharge opting to continue with herbal management. All persuasions and counsels failed and the patient was discharged against medical advice about five hours later.



Figure 1: Incisional hernia in the 60-years-old man with a broad-based midline scar.



Figure 2: Lateral view of the giant incisional hernia in the 46-years-old woman with a stretched-out scar and distended veins.



Figure 3: Oblique view of the lobulated incisional hernia, suggestive of intestinal obstruction.



DISCUSSION

Incisional hernias are one of the most frequent postoperative complications of abdominal wall surgeries, with high treatment costs.^{4,7} Most reports and reviews on incisional hernias focus only on the presentation, operative challenges, and outcomes of this pathology while other related issues such as the reasons for delayed presentation, the financial burden of management, and refusal to give consent for the surgical repair of incisional hernias are either given a passing mention or relegated to the background. This case series takes a look at two large post-surgical incisional hernias, with a review of reasons for delayed presentation and refusal to consent to surgery by patients with incisional hernias in the West African sub-region.

Incisional hernias occur in approximately 5% to 23% of laparotomies.^{2,3} In general, factors such as post-operative wound infection, poor surgical techniques, use of inappropriate suture material to close the rectus sheath, emergency procedures, midline vertical incisions, obesity, size of the defect, advanced age, prolonged use of steroids, malnutrition, and diabetes mellitus have been implicated as risk factors for the development of incisional hernias.^{3,4,5,7} Both primary procedures in these patients under review were performed as an emergency by the general medical practitioners. This category of non-specialists, who do not have the necessary surgical competence and experience, most times use absorbable sutures in fascia closure.^{5,8,9} The emergency nature of the surgeries, with a high incidence of infection following the surgery, and the experience of the surgeons who performed the surgeries have been implicated as being responsible for the high number of laparotomies and cesarean sections resulting in incisional hernias.^{4,5,6}

Incisional hernias can present almost soon after the primary surgery or several years after.^{4,5,10} The two cases reported here did not seek medical advice many years after the primary surgery, even though the swellings were noticed about a year after the primary surgery. Several authorities have reported that patients with incisional hernias only seek surgical repair because of physical discomfort or complications.^{4,5,6,7,9}

In sub-Saharan Africa, delayed presentation by patients with post-surgical incisional hernia is traceable to a number of varied factors. Ayandipo¹¹ and colleagues, working in Ibadan, southwestern Nigeria, implicated low socioeconomic status and very inadequate privately funded health care financing as being responsible for delayed presentation. They opined that a balance between costly cutting-edge and affordable surgical practice as well as adequate training of general practitioners and surgical trainees, will result in a low postoperative complication profile and reduce the incidence of incisional hernias, which often present with complications. Udo et al.¹⁰ in a prospective report of the early outcome of incisional hernia repairs in Uyo, southern Nigeria, noted that only a few patients with incisional hernias seek medical advice. This trend, they attributed to the high cost of treatment and disappointment from previous failed surgeries and repairs. Also, Ogbuanya¹² and colleagues, in a review of 138 patients treated for complicated abdominal wall hernia in rural southeastern Nigeria, reported that the rate of morbidity and mortality is directly related to the length of delay in presentation while implicated financial constraints, conservative treatment by non-surgical health practitioners, feeling that hernia is harmless, management at alternative homes, and the long-distance between home and hospital are barriers militating against early presentation in patients with incisional hernias.

Of the few patients who present to the hospital with complications of incisional hernia, only a handful consent to surgical repair.^{8,9} The two patients presented in this case series refused to give their consent for surgery. While one was due to a lack of confidence in surgical repairs, the other opted for traditional management following the resolution of the obstruction. Several workers have made similar reports. Ogbuanya et al.¹³ reported fear of surgery, lack of confidence in surgery, and



treatment in alternative homes such as prayer houses, herbal homes, and drug vendors while Udo and colleagues¹⁰ noted frustration from previous failed repair as the principal factor responsible for refusal to consent to repair of incisional hernias. All in all, thorough attention to these factors will enhance the early presentation and acceptance of surgical repairs of incisional hernias in sub-Saharan Africa.

CONCLUSION

Post-surgical incisional hernias are preventable causes of morbidity and mortality. Continuous medical education, especially for the general practitioners and the surgical trainees, is needed, with an emphasis on appropriate surgical techniques, suture selection, surgical site infection prevention, and post-herniorrhaphy patient care in order to reduce the surgeon-related factors contributing to the occurrence of incisional hernia. Also, there is a need for sensitization and health education of the populace, with a view to allaying their fears and demystifying the unfounded beliefs about incisional hernias and their repairs.

Declaration of patients' consent

The author certifies that the patients gave all appropriate consents for their images and other clinical information to be published in the journal. The patients know that their names will not be published and necessary efforts will be made to hide their identities.

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Conflicts of Interest: None to declare.

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