

FULL - TERM PREGNANCY IN AN INCISIONAL HERNIA - A CASE REPORT

***S.B. Agaja, **B.F. Ehalaiye**

*Department of *Surgery, University of Ilorin Teaching Hospital, Ilorin, Kwara State and ** ECWA Hospital, Egbe, Kogi State, Nigeria*

ABSTRACT

We report a case of full-term pregnancy in a 40 year old woman who presented with her fifth pregnancy with the uterus in the incisional hernia sac hanging below the groin. She has had previous abdominal operation through a midline scar. Complication of the previous operation led to the incisional hernia into which she carried a full term pregnancy. Caesarian section and bilateral tubal ligation were done with repair of the incisional hernia with nonabsorbable suture with uneventful postoperative recovery. It is advised that surgeons carrying out abdominal operations for whatever reason, the operations should be done on fit patient as much as possible, proper incisions should be made and the fascia should be closed with non-absorbable sutures (mass closure) in order to avoid occurrence of incisional hernias. Emergency operations in the abdomen including caesarian section, surgical principles should always be observed.

Keywords: Full-term pregnancy, Abdominal incision, hernia, prevention.

(Accepted 7 September 2006)

INTRODUCTION

According to Sir Astley Paston Cooper, no disease of the human body belonging to the province of the surgeon requires in its treatment a better combination of accurate anatomical knowledge with surgical skills than hernia in all its varieties¹. An incision hernia usually starts as a symptomless partial disruption of the deeper layers of a laparotomy wound during the immediate or early postoperative period. A postoperative hernia especially one through a lower abdominal scar, usually increases steadily in size and more of its content become irreducible. Most cases of incisional hernias are a symptomatic and broad necked and do not need treatment. Our case report has had the incisional hernia as a complication of previous caesarian section. When the patient became pregnant, as the pregnancy advanced, the uterus found itself in the incisional hernia sac carrying it below the groin. As pregnancy progresses, the risk of incarceration increases and can lead to strangulation of the uterus and subsequent complications². In view of this situation, it is better to repair the incisional hernia prior to pregnancy. Commonly, conservative management is preferred till term in form of rest and abdominal binders. Herniorrhaphy is postponed until delivery².

In this case report, we present a case where the gravid uterus herniated through the anterior abdominal wall in an incisional hernia at full term pregnancy. The patient

was an unbooked case when labour set in, hence an emergency caesarian section was done and redundant skin was excised and the hernia was repaired with nylon suture with a successful outcome. Other non-absorbable sutures such as prolene or fishing line can be used.

CASE REPORT

A 40-year old woman, S.A. having her fifth pregnancy, presented to ECWA Hospital, Egbe, Kogi State with full term pregnancy with the uterus in an incisional hernia hanging below the groin. She had a Caesarian section to deliver her last baby five years before presentation due to prolonged labour through a midline incision. Six months after she became pregnant, whenever she stood up the uterus would be in a bag in the abdomen hanging below the groin. She did not book in any hospital or maternity centre. When she was full term, her labour pains started hence she reported at ECWA Hospital, Egbe. Examination revealed a big defect in the anterior abdominal wall through which the uterus herniated. When patient was in erect position, the uterus in the hernia sac was almost reaching the knees (Figures 1 & 2). In the supine position, the gravid uterus appeared like a football on the anterior abdominal wall (Figure 3 & 4).

Vital signs including the foetal heart rate were essentially normal. All haematological indices were normal. In view of the situation with the uterus, she signed the consent for emergency caesarian section and also for bilateral tubal ligation since she did not want more children. Caesarian section was performed and a life female baby was delivered (Figure 5) Bilateral Tubal ligation was also done. The uterus was closed.

The excess skin was excised, one nylon was used to repair the fascia on the anterior abdominal wall and skin was sutured with interrupted O nylon. Patient made uneventful postoperative recovery and was discharged to be followed up in the postnatal clinic in six weeks. She was reviewed in the postnatal clinic, both herself, and the baby did well. There was no evidence of recurrence of the incisional hernia.

Fig. 1: Pregnancy in incisional hernia standing (right view).

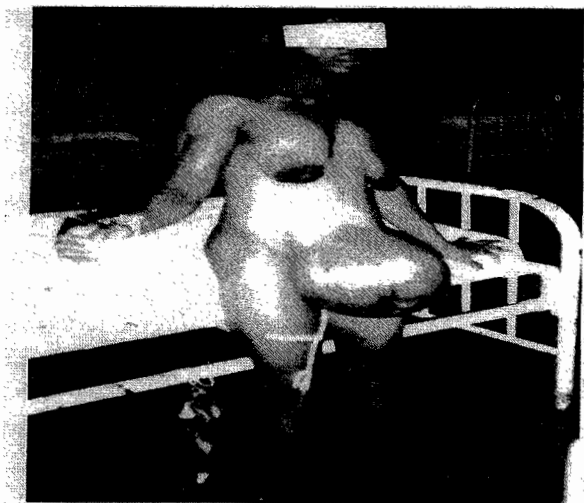


Fig. 2: Pregnancy in incisional hernia standing (left view).



Fig. 3: Pregnancy in incisional hernia- lying down.



Fig. 4: Pregnancy in incisional hernia- abdomen was supported by the left hand.

DISCUSSION

Incisional hernias by definition develop through the area of surgical incision. They appear to occur after 3-5 percent of all abdominal operations. The predisposing factors include midline or T-shaped incisions, infected wounds, wounds requiring resuture and emergency procedures which are more prone. Others are patients with poor nutritional status eg hypoproteinemia, patients with a debilitating disorder such as catcinomatosis, chronic nephritis, diabetes, cirrhosis of the liver, alcoholic jaundiced patients, postpositive chest complications, obese patients and through defects left by drainage tubes.

Incisional hernia occurs most often in obese individuals, and a persistent postoperative cough and postoperative abdominal distension are its precursors. There is a high incidence of incisional hernia following operations for peritonitis which could lead to the wound becoming infected¹. Stretching of the abdominal musculature because of an increase in contents as in obesity, can be another factor¹. The indications for caesarian sections are extensively stated in obstetrics by Ten Teachers^{3,4}, and other articles^{2,5}. Caesarian section is the most commonly performed operation with overall rate being almost 25% in USA². Remote complications can be incisional hernia due to defective abdominal wound healing and herniation of the gravid uterus through the abdominal wall is a rare complication². The complications which have been reported in association with this condition include strangulation,

abortion, premature labour, accidental hemorrhage, intrauterine death and rupture of the lower uterine segment³.

Damage to wound tissues is related to placement of incisions for several reasons. A well-placed incision may require less traction for exposure, undergo less tension after closure, and produce less separation of layers than one which is not carefully chosen. In general, transverse abdominal incisions have fewer disruptions than vertical ones^{6,7}.

Ferguson has continued to use only monofilament sutures for closure of aponeurotic layers^{8,9,10}. The main advantage is that even when the wound is infected and drained, the fascial closure usually does not break down, and sutures need not be removed in order for complete healing to occur⁸. Six hundred and seventy five caesarian sections over a period of eight years were done using mass closure for the abdomen; there was no case of incisional hernia that was recorded at ECWA Hospital, Egbe¹¹, whereas Adesunkami and Faleyimu (2003) claimed that caesarian section accounted for most of the postoperative incisional hernias seen in their surgical practice in Ile-Ife⁶.

A particular problem presented by very large umbilical hernias and in our case report, with full term pregnancy in incisional hernia, is that the return of a large volume of gut to the peritoneal cavity can embarrass respiratory function. It has been suggested that an artificial pneumoperitoneum should be created to increase the volume of the peritoneal cavity sequentially. However, Duncan and Rogers⁶ have found that even the largest hernias, containing almost all the contents of the peritoneal cavity can be repaired with acceptable morbidity, using epidural anaesthesia combine with short periods of intermittent positive pressure ventilation^{6,7,12}. In our case report, after the delivery of the baby and placenta, the uterus was closed in two layers, and the incisional hernia was repaired with nylon 1, a non-absorbable suture without any problem.

CONCLUSION.

Clearly, the surgeons' first responsibility is to avoid incisional hernia. In this connection, it is important not only to observe all the time honored standards of asepsis and meticulous closure with nonabsorbable suture, but it is also of first important to avoid unsound incisions¹³. Prevention of factors that can lead to incisional hernias, appropriate surgical incisions and use of mass closure with nonabsorbable sutures will go a long way to prevent incisional hernias as a complication of caesarian section. In emergency abdominal operations including caesarian sections, surgical principles should not be violated.

REFERENCES

1. **Russell RCG, Williams NS, Bulstrode CJK.** Incisional hernia (Synonym: Postoperative Hernia): Bailey and Love's Short Practice of Surgery, 24th Edition Arnold, London: 2004: 1291-1293
2. **Dare FO, Makinde OO, Lawal OO.** Gravid uterus in an anterior abdominal wall hernia of a Nigerian woman. *Int. J.Gynaecol Obstet.*: 1990: 32: 377-9.
3. **Cunningham FG, Grant NF, Levno KJ, Gilstrap LC, Hauth JC, Wenstrom KD.** Caesarian Section In: Williams Obstetrics 21st Edition MC Graw Hill, New York: 2003: 537-66
4. **Camphell S, Lees C.** Operative Intervention in Obstetrics: Obstetrics by Ten Teachers 17th Edition ELST with Arnold: 2000:281-302.
5. **Komolafe IO, Dayo AA, Isawumi AL, Adedokun VO, Akinola SE, Oboro VO.** Caesarian Section Rate: IS LAUTECH Teaching Hospital WHO Complaint? *NCR Vol. 9 No 2, 2005: 37-41.*
6. **Adesunkanmi AR, Faleyimu B.** Incidence and aetiological factors of incisional hernia in post-caesarian operations in a Nigerian hospital: *Obstet. Gynaecol* 2003; 23(3): 258-60.
7. **Duncan JL, Rogers K.** Umbilical and Epigastric Hernias Surgery: 1991: 97: 2326-2329.
8. **Ferguson DJ.** Advances in the Management of Surgical Wounds: The Surgical Clinics of North America: Recent Advances in Surgery 1971: 49-59.
9. **Condie JD, Ferguson DJ.** Experimental Wound Infections: J.Contamination versus Surgical Technique. *Surgery*: 1961: 50: 367-371.
10. **Ferguson DJ.** Clinical Application of Experimental Relations between Technique and Wound Infection. *Surgery*: 1968:63:377-381
11. **Agaja SB.** Factors Affecting Utilization of Services at a Rural Mission Hospital in Nigeria: *The Tropical Journal of Health Sciences*: 1999:6(1:): 13- 18
12. **Revitch MM.** Ventral Hernias: *Surgical Clinics of North America*: 1971: 51 1341-6.
13. **Walker SH.** The Natural History of Umbilical Hernias: *Clin.Paed*: 1967:6: