

Gossypiboma: A Report of 2 Cases

N. J. Jebbin FWACS, FICS, J. M. Adotey, FRCS, FWACS
 Department of Surgery, University of Port Harcourt Teaching Hospital,
 Port Harcourt, Nigeria.

ABSTRACT

Background: Retention of surgical sponges in body cavities (gossypiboma) is preventable. It is probably under reported, may be for medicolegal reasons. We report 2 cases we have managed, one at a tertiary medical centre, and the other, at a private clinic in Port Harcourt, in order to re-awaken the awareness of its occurrence and make a plea for caution during surgery.

Methods: The case notes of patients treated surgically over the period between 1995 and 2004 were reviewed for cases of retained surgical sponges.

Results: Two cases were identified over the period 1995 to 2004. One had presented acutely while the second case presented in a sub-acute manner. Both required re-exploration and retained sponges were retrieved.

Conclusion: It may not be possible to eradicate the occurrence of retained sponges in the body but it can definitely be minimized, thus saving many patients from the associated agony.

KEYWORDS: Surgical sponges; Port Harcourt.
 Paper accepted for publication 17th October, 2005.

INTRODUCTION

Gossypiboma is a serious medical condition with an equally serious medicolegal implication. It is generally under reported¹, probably because of the attendant medico legal implications. It is the cause of significant morbidity and sometimes mortality. Our experience with two such cases is presented together with a short comment.

CASE REPORT

CASE 1

A 37 year old female teacher presented to the Surgical clinic of the University of Port Harcourt Teaching Hospital (UPTH). She had had a Caesarean section 2 years previously following which she developed an incisional hernia. An incisional herniorrhaphy was done 3 months later and at a time when nurses had embarked on an industrial (strike) action. The Surgical wound healed satisfactorily, although she had intermittent vague abdominal pain. On follow-up in the clinic, she continued to complain of abdominal pain and subsequently developed a gradually increasing pelvic mass. There was, however, no change in bowel habit. An ultra sound scan of the abdomen suggested a complex ovarian cyst for which reason she was referred to the

Gynaecological unit of the same hospital. At laparotomy (by a combined team of surgeons and gynaecologists) a mass of matted loops of small bowel, sigmoid colon and omentum was found. An attempt to unravel the mass by combined blunt and sharp dissection revealed an abscess cavity containing a laparotomy pack. The pack was removed, the abscess drained and adhesiolysis done. The abscess cavity was irrigated with warm normal saline and a corrugated red rubber drain inserted. Mass closure of the abdomen was done and the patient placed on triple antibiotics namely, Ceftriaxone, gentamycin and metronidazole.

By the 5th post operative day, she developed a faecal fistula which was managed conservatively. The fistula closed over a period of 8 days. She was discharged about three weeks after the laparotomy in good clinical condition. The findings at exploration were not disclosed to her.

CASE 2

A 25 year old unbooked pregnant woman with two previous Caesarean sections (C/S) presented in August 2004 with meconium-stained liquor at term. She underwent an emergency repeat Caesarean section (C/S) shortly after presentation and was delivered of a live baby boy with poor Apgar scores. She had a therapeutic course of broad spectrum antibiotics (Cephalosporin, gentamycin and metronidazole). About 5 days later, she developed severe pain along the wound fever. An abdominal ultrasound scan suggested an anterior abdominal wall abscess. A local exploration of the wound was carried out in theatre; this revealed an abscess collection in the anterior abdominal wall. Pus was drained and a swab taken for microscopy, culture, and sensitivity. The culture showed a moderate growth of coliforms sensitive to amoxicillin and ofloxacin which were duly given. She had 2 units of blood transfused on account of a haemoglobin level of 7.0g/dl.

She developed a persistent discharging sinus, which necessitated a second wound exploration two weeks later in theatre. At exploration an abscess cavity in the anterior abdominal wall containing a piece of gauze was found. The gauze was removed and pus drained. The wound was closed using a corrugated red rubber drain in situ. The drain was removed after three days and the wound healed thereafter. The patient was discharged 17 days after the second exploration. No information was given to the patient about what was found at exploration.

DISCUSSION

Gossypiboma (Latin:gossipium- cotton, and Kiswahili boma- place of concealment) or retained surgical sponge is an uncommon but serious condition with medicolegal and

implications. Several studies have reported an incidence ranging from one in 300 to one in 1500 cases following laparotomies². In the absence of a radio-opaque marker and sepsis, a preoperative diagnosis can be difficult. The possibility of the condition should be considered in any patient with previous surgery and who presents with abdominal mass, acute abdomen or discharging sinus³. Its presentation can be acute, sub-acute or chronic and can constitute a diagnostic dilemma. One case, for example, manifested as an abdominal tumour 30 years after laparotomy⁴. An acute case usually presents as a wound infection and later as a persistent sinus. Most present as a mass or subacute intestinal obstruction while others may result in a faecal fistula, free perforation with peritonitis or an extrusion⁵. The first case in this report, presented acutely while the second presented as a sub-acute abdominal mass.

The condition is frequently misdiagnosed and often unnecessary radical surgical procedures are performed because it is not anticipated⁶.

Simple plain abdominal radiographs will usually clinch the diagnosis as whorl-like pattern of impregnated thread will be demonstrated⁷. We did not utilize this diagnostic tool because the diagnosis was not anticipated. In a case reported by Gencosmanoglu and Inceoglu, plain abdominal radiography did not show any sign of a radiopaque marker in the abdomen even in the presence of one⁸. This may be due to disintegration and fragmentation of the the radiopaque marker. Ultrasound scan has been found to be important and diagnostic in such cases of retained surgical sponges⁹. Features include brightly echogenic wavy structures in a cystic mass. There is also acoustic shadowing posteriorly that changes with direction of the ultrasound beam. In the 2 cases presented, these features were misinterpreted by the sonographer. Computerized tomographic scanning may also be diagnostic, demonstrating gas between the sponges, calcification of the wall, and contrast enhancement of the rim¹⁰. Recently the role of computerized tomographically guided needle biopsy in diagnosis has been highlighted¹¹. Where facilities are available, magnetic resonance imaging may also be diagnostic. It shows a mass with variable signal intensity dependent upon the amount of fluid and protein accumulation¹².

The best approach to the prevention of this problem is meticulous count of surgical materials and thorough exploration of the site of operation at the conclusion of surgery. Small sponges or swabs should not be used once the abdomen has been opened. In one of the cases reported, the operation was performed during an industrial (strike) action when

theatre nurses were absent from work. The routine instrument/gauze count done by them was therefore omitted as only doctors performed the operation. Although it may not be possible to eradicate this condition, its occurrence can be minimized by strict application of laid down theatre rules and regulations.

Most reports have remained silent over the issue of divulging information to patients about findings at exploration^{2,3}. This is probably due to fear of medico-legal action that could be brought up by patient against the doctor or the hospital.

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