

GOSSYPIDOMA: TWELVE YEARS THERE-AFTER:

A case report

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Abstract

Gossypiboma is used to describe a retained surgical swab in the body after an operation. Retained intra-abdominal surgical sponge is an uncommon surgical error. Among retained foreign bodies, a surgical gauze or sponge constitutes the most frequently encountered object because of its common usage, small size and amorphous structure. We are reporting a case in which a 32 year woman presented 12 years after an exploratory laparotomy for a left sided abdominal mass. The policy that prevention is far more important than cure coupled with use of several adjunct technologies which accounts for sponges will help reduce the incidence of retained surgical sponges.

KEY WORDS: GOSSYPIBOMA, SPONGES-COUNT, PREVENTION

Introduction

Gossypiboma, an iatrogenic but avoidable complication of surgery refers to a retained surgical sponge.

Incidence of retained surgical sponge occurs at a one per 100-300 operations¹. It leads to considerable mortality and at times even mortality. It may be associated with a bowel perforation which can be diagnosed preoperatively by a CT scan². We are reporting the case to present gossypiboma as a cause of unresolved postsurgical pain and that the surgical policy of prevention is far more important than cure.

55 Case Report

56 A 32 years old woman first presented with one week history of
57 low back pain with suprapubic pain associated with whitish vaginal
58 discharge. The only positive point in her previous history was an
59 exploratory laparotomy for left sided adnexal mass performed at
60 another medical facility in year 2000. Vital signs were normal.
61 Pelvic examination reveals a caseous discharge around an open
62 cervix with a bulky uterus, 18 weeks size and a solitary firm mass
63 posterior to the uterus measuring 5cm by 4cm. An exploratory
64 laparotomy for left sided adnexal mass was performed. Intra
65 operative findings included numerous adhesions and a walled
66 surgical gauze measuring 5cm by 5cm by 4cm (Figures 1 and 2).
67 Histological sections were in keeping with gauze and chronic
68 granulomatous inflammatory reaction. Patient responded well to
69 post-operative management. The hospital where the original surgery
70 was done was informed to facilitate initiation of preventive steps.

73 **Discussion**

74 A surgical sponge is the most common type of retained foreign
75 body³ because of its common usage, small size and amorphous
76 structure. It derived its name gossypibioma from Latin gossypium
77 (cotton) and Swahili boma (place of concealment).

78 The true incidence of this condition may not be known as
79 surgeons may not report these events for fear of litigation and
80 advert publicity.

81 Reported age range for patients with this condition was 6-
82 92years⁴. Our patient age was 32 years. Average discovery time
83 equaled 6.9 years (SD 10. 2 years) with a median (quartiles) of 2.2
84 years (0.3-84 years). This patient presented after 12 years.
85 Abdomen (56%) in most cases accounted for the site of retained
86 surgical sponge, followed by pelvic (18%), and thorax (11%). This
87 present case was discovered in the abdomen.

Pain/irritation (42%), palpable mass (27%) and fever (12%) were leading signs and symptoms⁴. The patient presented with abdominal pain with a bulky 18 weeks abdominal size.

The possibility of a retained foreign body should be in the differential diagnosis of any post operative patient who present with pain, infection or palpable mass³. The first diagnostic modality to rule it out should be a CT scan. MRI features can be confusing because the radiopaque marker is not magnetic or paramagnetic^{3,5}. Correctly identifying a sponge on an intraoperative radiograph can be difficult. The surgical markers may become twisted or folded and present an unusual image⁶. Also radiopaque markers inside the sponge have been misinterpreted as calcifications, intestinal contrast materials, wire, or surgical clips⁵.

Pathologically, two usual responses lead to the detection of a retained sponge. Aseptic fibrinous responses due to foreign body granuloma or exudative reaction leading to abscess formation⁵. Migration of retained sponge into bowel is rare but do occur when compared to abscess formation and occur as a result of inflammation in the intestinal wall that evolves to necrosis^{4,7,8}.

Treatment for gossypibioma is removal usually through the previous operative site, but endoscopic or laparoscopic approaches may be attempted⁹. One possible complication to bear in mind during surgery for removal of retained foreign body is perforation of adherent bowels, which may be missed.

The hallmark of treatment for gossysbioma is the surgical policy that prevention is better than cure. The universal guidelines as stated by the American College of Surgery¹⁰ in October 2005 should be strictly followed. Only radio-opaque sponges should be used, with accurate sponge counts performed before the procedure and after the procedure. Although human errors cannot be completely avoided¹¹, several adjunct technologies are under development for supporting surgical teams in performing counts and reducing instances of lost or retained sponges. This include the barcode system, which accounts for sponges based on affixed two – dimensional matrix¹². Two additional technologies embed electronic chips within sponges: the electronic article surveillance (EAS) system, which uses magneto mechanical technology¹³; and

radiofrequency identification (RFID) microchips, which receives signals sent by a wand like handheld scanner and respond with unique identification code¹⁴. This newer technologies coupled with continuous medical training and strict adherent to rules of the operation room should reduce the incidence of gossypiboma to a minimum.

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145 **Acknowledgment**

146 The authors acknowledge the support of the staff of State
147 House Medical Center, Asokoro, Abuja, Departments of Obstetrics
148 and Gynecology and Laboratory Medicine.

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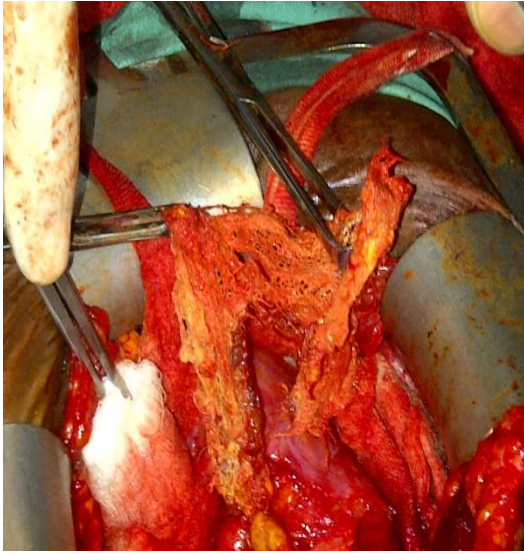


Figure 1: Intraoperative photograph showing the retained surgical sponge being removed.

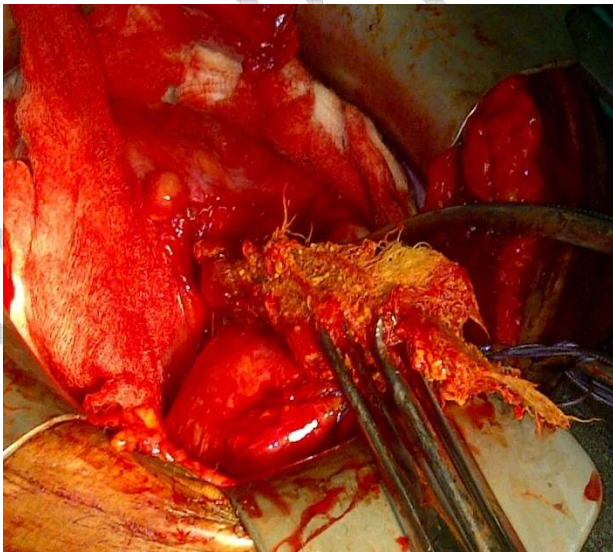


Figure2: Gossypiboma grasped by clamps.

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