

# Retained surgical gauze ( Gossypiboma )

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## Abstract

Introduction :A retained surgical gauzes in the abdomen is rare , underreported in the medical literature ,and have catastrophic implications for patients , healthcare professionals and medical care providers .

Case presentation :A young female patient presented with abdominal swelling and pain .She has history of a caesarian section before two months . Her radiologic investigations showed a radio-opaque marker and left intraabdominal mass . Laparotomy done and a foriegn body removed .

Conclusion :Although rare condition a gossypiboma is a complication of surgical procedure that can be prevented and modify its medico-forensic consequences .

## **Introduction**

Retained surgical gauze ( Gossypiboma ) is a rare occurrence secondary to a previous open surgical procedure 1 . The incidence in the early 1980 was varied from 1 in every 1000 to 1500 intraabdominal operations , while more recent studies suggest an incidence of 1 in 18760 inpatient operations 2 . It often results in adverse consequences for patients and can seriously implicate the health care personel involved 2,3.

## **Case presentation**

Two months after undergoing a caesarian section a 28 year old female presented with abdominal pain and intraabdominal swelling . There was no associated change in bowel habit. On abdominal examination , a palpable mobile tender mass in the left lumbar area was felt .Her hematological and biochemical investigations were all normal .

Ultrasonography revealed a cystic like mass with complex echogenicity .Plain abdominal radiography showed a radio-opaque marker ( thread-like ) figure 1 . CT scanning showed a well defined mass with air bubbles and spongiform pattern (figure 2) .



Figure 1 : plain abdominal radiography showing a thread-like radio-opacity.



Figure 2 : Abdominal CT scanning showing a well defined left lumbar mass with air bubbles and spongiform pattern .

At laparotomy the mass was enclosed by a thick wall attached to the posterior wall of the abdominal cavity , the wall opened and a single large surgical gauze was removed , pus cleaned and marsupialization of the wall done (figure 3) .The histopathology report confirmed the absence of malignancy .

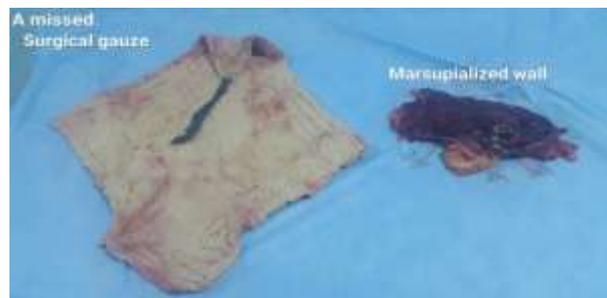


Figure 3 : showing a missed surgical gauze and the removed part of the marsupialized wall .

## **Discussion**

Gossypiboma is a term derived from gossypium ( latin ) meaning cotton and boma a Swahili word meaning a place of concealment 1. It is a preventable ietrogenic complication whose delay in diagnosis and treatment can lead to a significant morbidity and mortality 4 . It is a serious medicolegal problem 5 , and no surgical procedure is immune to it 2 .

There are many risk factors which can lead to gossypiboma including emergency surgery ,high body mass index 1,3,4,6, intraoperative complications such as haemorrhage 3,4,6, abdominal and pelvic surgery 6, a prolonged surgical procedure 1, unexpected changes in a planed surgical procedure 1,4, complex surgery

involving more than one team and change-over in the nursing team during surgery 6.

The most frequent missed foreign body was found to be laparotomic gauze<sup>3,4</sup> .

The most common sites of gossypiboma are abdominal and pelvic cavities ( wan et al ), followed by thoracic cavity 2 . Gastrointestinal and gynecological operations account for about 75 % of reported gossypibomas 4 .

Retained foriegn bodys ( gossypibomas ) induce two types of tissue reactions , the exudative reaction which presents early in the postoperative period 2,4, with

infection 2 , abscess and chronic fistulae formation 4 , and the other reaction is the aseptic fibrous reaction 2,4, in which the patient may remain asymptomatic for many years 2, and it may causes adhesions and encapsulation resulting in a foreign body granuloma 4.

The clinical presentation of retained foreign bodies varied 1,2,3,5, and depend on the site involved 2,5, and the type of tissue reaction elicited 2 . The presentation may be acute 6 with symptoms and signs of abscess formation 1,3,4,5,6, peritonitis 3,4,6, intestinal obstruction 3,4,5,6, and abdominal pain 5 , or chronic with discomfort 6 , abdominal pain 1,6, mass 1,3,4,5,6, adhesions 5,6, intestinal obstruction 1,7, fistulae 5,6,8, discharging sinus 4, and transmigration of the foreign body through the hollow viscus 3,6,8, gastrointestinal hemorrhage

## **Conclusion**

Gossypiboma is a rare condition but does occur after surgical operation and should be considered in the differential diagnosis of intraabdominal masses. The retention of foreign bodies in body cavities shows a

5, and some patients remain asymptomatic for years 3,7, and discovered incidentally during imaging study done for another reason 2 .

The diagnosis can be done by the help of plain radiography 1,2,3,8 , computed tomography 1,2,3,5,6,8, magnetic resonance imaging , contrast studies 2,3, and ultrasonography 1,3,5,6 .

The radiological appearance of retained foreign body varies and nonspecific . It can mimic a cystic lesion 4, or it may shows a thread-like radio-opacity 8 .

Diagnostic radiography can help in the diagnosis , assessment of the complications and the planning of surgery

The treatment remain surgical removal 3 of the foreign bodies even if the patient is asymptomatic 2 .

weakness to be overcome and it is entirely preventable reasons of morbidity and mortality . The operative team should ensure standard measures to prevent this iatrogenic complication .

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