

## Retained surgical gauze ( Gossypiboma )

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### Abstract

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

Introduction : 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 ( Gassy pigboat ) 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 intra abdominal 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 personnel involved 2,3.

Case presentation

Ultra sono graph 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) .

Two months after undergoing a caesarian section a 28 year old female presented with abdominal pain and intra abdominal 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 .



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 . The patient had an uneventful postoperative recovery



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 gauze3,4 . 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 reaction which presents early in exudative

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 The clinical presentation of retained foreign bodies varied 1,2,3,5, and depend on the site involved 2,5, and the type of 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 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 asymptomatic 2 .

patient may remain asymptomatic for many years 2, and it may causes adhesions and encapsulation resulting in a foreign body granuloma 4. tissue reaction elicited 2 . The presentation may be

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

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

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