International Journal of Medical Research Professionals
P-ISSN: 2454-6356; E-ISSN: 2454-6364
DOI: 10.21276/ijmrp

IJMRP

Case Report .

Mistakes of Surgeons: "Gossypiboma" Sometimes Brings Grave Consequence to the Patient

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ABSTRACT

Retained surgical mop in the abdominal cavity is a serious but avoidable complication which may manifest either as an inflammatory reaction with formation of abscess and fistula or with a fibrotic reaction developing into a mass. We report the case of a 25 years old women who presented four months after a Caesarean section with features of intestinal obstruction. Plain abdominal radiograph and ultrasound scan raised high index of suspicion of the presence of gossypiboma and the diagnosis was confirmed at laparotomy. Even after 2nd and 3rd look surgery, the patient faced a sad demise.

Gossypiboma, term derived from the latin 'gossypium' (cotton) and the swahilli 'boma' (place of concealment) is the term form retained surgical sponge. Two usual responses to retained mops are exudative inflammatory reaction to develop a mass. Intraluminal migration is rare, leading to obstruction. Patient may develop symptoms of abdominal pain, nausea, vomiting and weight loss resulting from obstruction or a malabsorption syndrome caused by multiple intestinal fistulas or intraluminal bacterial overgrowth. Early recognition of this entity will ensure prompt diagnosis and appropriate treatment, reducing morbidity and mortality in such patients.

Keywords: Retained Surgical Mop, Gossypiboma, Plain Abdominal Radiograph.

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Article History:

Received: 09-06-2019, **Revised:** 05-07-2019, **Accepted:** 20-07-2019

Access this article online	
Website: www.ijmrp.com	Quick Response code
DOI: 10.21276/ijmrp.2019.5.4.022	

INTRODUCTION

Retained intraperitoneal foreign bodies have rarely been reported. Data concerning incidence of gossypiboma fluctuates because of a low reporting rate. Its occurrence varies between 1 / 100 and 1/5000 laparotomies.[1-3] Despite precautions taken before, during and after surgical procedures, surgical objects are still occasional left behind in the peritoneal cavity. The most common retained foreign body is the surgical sponge. It is often forgotten during operations in the pelvis, explaining the high incidence of gossypiboma following gynecological procedures.[3-8] We reviewed the case who had retained abdominal gossypiboma to give the importance of this operative iatrogenic complication as the surgical expertise in this field is lacking.

MATERIALS AND METHODS

The records of the patient with a confirmed diagnosis of gossypiboma were done at laparotomy in district hospital on 19-07-2018, four months after Caesarean section. Subsequent 3rd surgery was done in a private hospital, Dhaka on 13-08-2018. The Patient died on 20-08-2018 were retrospectively reviewed.

CASE REPORT

A 25 years young lady who underwent Caesarean section 4 months ago in an upazilla private hospital was admitted in a district hospital with abdominal pain, vomiting, abdominal distension, fever and palpable lower obstruction mass. Plain abdominal x-ray showed features of small bowel obstruction. USG of whole abdomen revealed a mass in the pelvis measuring (12x8) cm with irregular internal echogencity, slight pelvic collection and dilated loops of intestine. Blood count showed neutrophilic leukocytosis. At laparotomy, a mass was identified in the pelvis and about 400cc pus was sucked out. The mass was adherent with peritoneum, uterus, small bowel and omentum. The adhesions were dissected by sharp dissections. The mass was removed. No intestinal perforation was identified. The mass was kept under a running tap and a (14x12) cm size. Surgical mop was discovered. Abdomen closed in layers keeping a drain in pelvis. Following this surgery patient improved initially, after 2 weeks she developed abdominal pain, vomiting, fever, abdominal distension etc. Then she was referred to a senior Surgeon and was admitted

in a private hospital in Dhaka. Plain x-ray abdomen showed distended loops of intestine, X-ray chest chowed right sided basal pneumonia. Ultrasound revealed right sided subdiapharamatic collection and was diagnosed as subphrenic abscess. Three weeks after second surgery. 3rd surgery was done by right subcostal incision under antibiotics coverage. At operation 1500ml frank pus was drained from right subphrenic space. Pus was sent for culture sensitivity. Proper toileting done with normal saline. Wound closed in layers. A drain was kept in situ. Even after 3rd operation, she didn't improve and on 3rd POD she developed vomiting, diarrhea, pain, fever and jaundice. On 4th POD she developed hepatic encephalopathy and respiratory distress and was shifted to ICU and put on mechanical ventilator. All efforts failed and the patient succumbed on 6thpost operative day probably due to sepsis leading to portal pyemia-jaundice & hepatic failure.

DISCUSSION

Forgotten intraperitoneal foreign bodies have rarely been reported. Data concerning the incidence of gossypiboma tend to fluctuate because of a low reporting rate. Its occurrence varies between 1/100 and 1/15000 laparotomies.[3-6] Significant risk factors for retained foreign bodies are emergency surgery (when initial count are often hurried and omitted), hemorrhagic procedures, unplanned change in operation, operations in anatomical regions difficult to reach and high body mass index.

Gossypiboma carries an important medico legal aspects for every surgeon. For this reason, prevention of gossypiboma is better than cure. Prevention of gossypiboma can be done by simple precaution like keeping a thorough pack count and tagging the packs with markers. New technologies are being developed which will hopefully decrease the incidence of retained foreign body. An electronic article surveillance system which uses a tagged surgical sponge that can be identified electronically has been examined [8]. The low index of suspicion is due to rarity of the condition and latency of the manifestations of symptoms. It frequently results in misdiagnosis, leading to delay in proper management. If early diagnosis is made. Laparoscopic or endoscopic or open surgical removal may be feasible[9].

The usual manifestations of the foreign body left in the abdominal cavity is an abscess or chronic fistula appearing in the early post-operative period. Sometime it is asymptomatic for a prolonged period. Long term gauze retention causing pseudotumoral complications often very difficult to diagnose because the gauze pieces or a mop provoke a fibrotic foreign body reaction and the foreign body becomes adherent to the surrounding structure or invading a hollow viscus nearby.[1-9] Depending on its locations, sometime guaze left in the body can cause pseudotumoral syndrome, intestinal obstruction. In addition a fibrotic reaction can cause adhesions or it can be asymptomatic altogether.[9] Other manifestation that happened in this case was a lower abdominal mass with late abscess formation. Spontaneous evacuation of the foreign body per anus is also reported. The patient had all the common presenting features that are abdominal pain, vomiting, fever. Diarrhea, palpable mass etc. The interval between initial operation and detection of gossypiboma varies. In this study the interval was four months. Conventional plain abdominal radiograph, ultrasonography, CT scan, MRI etc. helps the diagnosis but confirms at laparotomy. In this case plain abdominal x-ray finding was nonspecific showed features of small bowel obstruction. Ultrasound scan showed a pelvic mass with pelvic collection raised suspicion of the presence of a foreign body. CT scan was not done. As the surgical mop retained in the abdominal cavity for 4 months. It was adherent with small intestine and other surrounding structures. Adhesions were divided by sharp dissection and the gossypiboma was removed. So, there were Chance of further adhesions with intestinal obstruction and perforation with abscess formations. So, a loop ileostomy might be the preferred option. The interval between 2nd and 3rd operation was 3 weeks and 3rd operation was done for subdiaphramatic abscess by a right subcostal incision. Huge amount of pus was drained. Here the primary site, the pelvis was ignored. At this time laparotomy had to be done by a generous midline or right paramedian incision to identify its sources.

CONCLUSION

Although X-ray, ultrasonography, CT scan, MRI, may help to diagnose a gossypiboma. Definite diagnosis can be done only at operation. Gossypiboma carries an important medico legal aspect for every surgeon. Prevention of gossypiboma is better than cure. Early diagnosis and proper management brings better outcome. In cases of late diagnosis where extensive adhesions are dealt with defunctioning ileostomy are the preferred method with or without resection and anastomosis.

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Source of Support: Nil. **Conflict of Interest:** None Declared.

Cite this article as: Md. Mustafizur Rahman, Muhammad Khaled Mahmud, Md. Abdul Qaiyum, Md. Akkas Miah, Md. Kamal Khan. Mistakes of Surgeons: "Gossypiboma" Sometimes Brings Grave Consequence to the Patient. Int J Med Res Prof. 2019 July; 5(4):96-97. DOI:10.21276/ijmrp.2019.5.4.022