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Case Report

GOSSYPIBOMA – A CASE REPORT

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ABSTRACT:
Gossypiboma (retained surgical sponge) is a rare occurrence and can occur after any surgical procedure, which requires the use of internal swabs. We present a case of 40 years old female who underwent laparotomy for hysterectomy. This case is presented to highlight the fact that this condition should always be included in the differential diagnosis of patients who have had previous surgery and vague symptoms.

KEYWORDS: Gossypiboma, Retained Surgical Sponge.

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INTRODUCTION

Gossypiboma, retained surgical sponge (Gossypium Latin: cotton; Boma Kiswahili: place of concealment) is a mass composed of a cotton matrix and concealed within the body. Although uncommon it is an underestimated and under-reported condition[1] despite an estimated incidence of 1/1500 cases[2]. Synonyms of gossypiboma are textiloma and cottonoid.

The most common gossypiboma is the iatrogenically introduced surgical sponge. Most commonly, hysterectomy, appendectomy and cholecystectomy are associated with retained sponges[3]. Persistent wound infection, unexplained pain and fever in the postoperative period should lead one to suspect a retained foreign body.

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CASE REPORT

A 40-year old female was referred for abdominal and pelvic CT scan for recurrent vague left sided abdominal pain for the last 5-months. There was no vomiting, diarrhea, constipation, abdominal distension, fever and anorexia or weight loss. On examination she had a mobile palpable firm, non-tender mass in the left iliac fossa. In the surgical history she had hysterectomy 6 months back.

The transaxial CT scan of the abdomen and pelvis was performed with oral and intravenous contrast. This demonstrated a 3.8x1.2 cm circumscribed intra-abdominal mass in the left iliac fossa having whirl like gas collection along with appearance of mesh network. It had thick surrounding wall with inflammatory changes in the adjacent mesentery and anterior abdominal wall muscles, which were also thickened. The small bowel loops adjacent to this mass had thickened wall and showing displacement. No calcification was seen.

In keeping with the patient's history of

hysterectomy in the past and CT appearance of the mass, the most likely diagnosis made was that of gossypiboma. Laparotomy was performed which revealed a retained surgical swab encased in a fibrous capsule and adherent to mesentery of ileum. It was dissected en bloc from the mesentery.

The patient made an uneventful recovery and was discharged home on the fifth postoperative day. At the follow-up three months after operation, the patient was feeling well and had completely recovered.

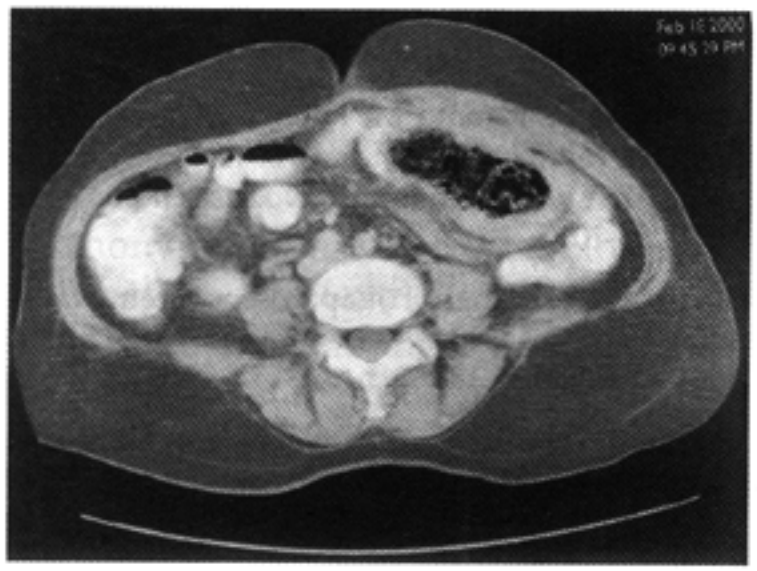

Figure-1: Circumscribed intra-abdominal mass in the left iliac fossa having whirl like gas collection along with appearance of mesh network.

DISCUSSION

Gossypiboma can occur as a complication of almost any surgical procedure such as gynecologic procedures, abdominal surgery[2], cardiothoracic surgery[4], internal fixation of fracture[5] and even after neurosurgical procedures[6].

The phenomenon of gossypiboma has been discussed in terms of a diagnostic dilemma with associated medico-legal implications[7]. Patients usually present with a abdominal mass, sub-acute intestinal obstruction, fistulae, free perforation or even extrusion.[8]

Septicemia may be present in the early postoperative period with plain abdominal radiological investigations revealing a characteristic soft tissue mass containing air bubbles with or without a fistula[9].

Radiographic evaluation has proved indispensable in preoperative evaluation. Plain radiographs may reveal a whirl like pattern. On ultrasound a gossypiboma appears as a hypoechoic mass with irregular hyperechoic areas[10]. Computed tomography and magnetic resonance imaging usually demonstrate a well-circumscribed mass. Computed tomography should identify gas or calcification. The variable density seen on computed tomography may be from gas trapped within the sponge fiber fragments. The center of the mass on magnetic resonance imaging may show variable intensities depending on the amount of fluid and protein concentration. T1-weighted images and T2-weighted images result in low signal intensity along the fibrous capsule[11]. Generally computed tomography or ultrasound has been sufficient for the diagnosis.

Gossypiboma usually necessitates laparotomy. However, Childers and Caplinger[12] have reported the successful retrieval of a retained sponge using laparoscopy. The percutaneous retrieval of an intra-abdominal sponge in interventional radiology suite has been described[13]. The time between initial and repeated surgery varies from a few days to 20 years. Ultrasound guided assisted removal may be feasible[14].

Most reported cases of gossypiboma occur in the presence of a normal pack count[4]. Hurried counts, which may occur in long procedures, may also contribute and additional counts are recommended when there are changes in the theatre personnel.

CONCLUSION

The medicolegal consequences of gossypiboma are significant. Patients may be informed inadvertently that masses may be malignant and may undergo unnecessarily invasive investigations and unnecessary radical extirpative surgery.

Prevention of gossypiboma is better than cure. At the time of surgery the abdomen must be thoroughly examined for retained packs, instruments and sponges. Several suggestions may help to prevent this iatrogenic disease.

Every effort should be made to use radioopaque markers worldwide. In countries like ours this may be economically impossible. Two counts should be completed following the fascial closure. Intraoperative radiology maybe helpful.

This case is presented as a reminder that a diagnosis of gossypiboma be entertained in patients who had previous surgery regardless of the anatomical region.

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