

Gossypiboma: Cause Of Intestinal Adhesions

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Citation

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Abstract

Gossypiboma or textiloma is referred to as surgical gauze or towel inadvertently retained in the body following surgery. In this case report, we describe gossypiboma in the abdominal cavity which was detected 10 months after the caesarean section due to complaints of recurrent abdominal pain. Small bowel loops were seen to be adherent with the gossypiboma in the computed tomography study as a result of long standing gossypiboma. Ileal resection was performed with end to end anastomosis done.

INTRODUCTION

The term “gossypiboma” denotes a mass of cotton that is retained in the body following surgery. Gossypiboma is a medico-legal problem especially for surgeons. Its diagnosis becomes difficult if non radioopaque material is used. However this diagnosis should be kept in mind especially in postoperative cases. We present here a case report in a female patient with vague abdominal pain having previous history of two caesarean sections done.

CASE REPORT

A 26 year old female presented with complaints of recurrent pain in the right iliac fossa since 15 days. There was associated history of two episodes of vomiting since last two days. No history of constipation or diarrhoea was present. She had past history of two caesarean sections done; last caesarean section was done ten months back. The clinical diagnosis was acute bowel obstruction for which CT was done. Laboratory parameters revealed raised ESR and leucocytosis.

Plain and Post contrast Computed tomography (CT) scan of the abdomen and pelvis was performed on multislice CT scanner (Volume Zoom, Siemens) with 3 mm slice thickness which revealed a well-defined mass in the right iliac fossa with thick enhancing wall and central spongiform appearance due to multiple air specks. Also seen was an ileal loop adherent to the lesion. Rest of the small bowel loops were normal.

The diagnosis of retained surgical sponge with adhered ileal loop was made. The patient underwent surgery in which the sponge was removed and cocooning of the ileal loop to

sponge was observed. Ileal resection was performed with end to end anastomosis done.

Figure 1

Figure 1: White arrow denotes thick enhancing wall with central spongiform pattern due to multiple air specks



Figure 2

Figure 2: Black arrow depicts thick wall lesion with central multiple air specks. White arrow shows adhered ileal loop to the lesion.



DISCUSSION

A gossypiboma, or retained surgical sponge (Gossypium [Latin]: cotton, Boma [Kiswahili]: place of concealment), is an uncommon surgical complication. These retained sponges were first referred to as “textilomas,” but were renamed “gossypiboma” in 1978.^{2,3}

Patients usually present with an abdominal mass, sub acute intestinal obstruction, fistulae, free perforation or even extrusion. Gossypibomas typically have an inconsistent radiologic appearance determined by the time insitu, the type of material and the anatomical location.⁴

Furthermore, diagnostic difficulties exist since gossypibomas may present with the entire spectrum ranging from asymptomatic to producing severe life-threatening illness.

The diagnosis is easily made by plain abdominal radiography, when a radio-opaque marker is seen. However, this imaging method is not helpful when these markers are disintegrated or fragmented over time.^{1,5}

Ultrasound may be helpful, but often non-diagnostic, whereas CT shows ring enhancement, which is indistinguishable from an abscess or tumour.⁴ CT findings of gossypiboma, particularly in long standing cases, may be indistinguishable from intraabdominal abscess, since air bubbles and calcification of the cavity wall as well as contrast enhancement of the rim may be seen in both conditions.^{1,5}

Computed tomography is very useful for recognition of

retained sponges. The appearance of retained sponges is widely variable. Air trapping into a surgical sponge results in the spongiform pattern which is characteristic but unfortunately uncommon. A low-density, high-density, or complex mass is found in the majority of cases, but these patterns are not specific. Sometimes, a thin high-density capsule may be seen. Rim or internal calcification is a rare finding. “The gas trapped in the interwoven threads of the surgical sponge may persist for weeks or months postoperatively. Similarly, calcification and enhancement of the wall of the fluid collection may also occur in the absence of infection.”²

The most common cause of small bowel obstruction in adults is adhesions due to the previous abdominal surgery. Gossypiboma is one of the rare causes of such an obstruction. Although it is an uncommon condition, it is the dread of every surgeon.¹

If the initial surgery had been performed a long time before the diagnosis of gossypiboma, there may be a fistula between the cavity containing the foreign body and the gastrointestinal tract. In this situation, resection of the affected segment is mandatory.¹ In our case the ileal loop was seen adherent to the foreign body with no fistula formation and hence resection was done with end to end anastomosis done.

Prevention is the best treatment as in many other medical problems. In summary, although gossypiboma is rarely seen in daily clinical practice, it should be considered in the differential diagnosis of acute intestinal obstruction in patients who underwent operative surgery previously. The best approach in the prevention of this condition can be achieved by meticulous count of surgical materials in addition to thorough exploration of surgical site at the conclusion of operations. The routine use of surgical textile materials impregnated with a radio-opaque marker that are easily detected by intraoperative radiologic screening can also be used.

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