

CASE REPORT

Gossypiboma: A case report

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Abstract

Gossypiboma or textilloma is an accidentally left pack in the operative field that is forgotten by the surgical team to be removed. Being a very dreadful surgical complication, it is most commonly discovered in the abdominal and chest cavity. Its diagnosis is difficult as it can mimic tumors or abscesses. It is rarely reported due to medicolegal implications. We present a case of gossypiboma in the abdomen after previous abdominal surgery. The patient presented with mass in the abdomen along with fever and pain. Exploratory laparotomy was carried out and the sponge was removed. It is concluded that retained surgical sponge should be kept in mind as one of the cause, while investigating any intra-abdominal mass, especially in cases where previously any surgical procedure has been done.

Keywords: Gossypiboma, abdominal mass, textilloma, abdominal surgery

Introduction:

Gossypiboma is a combination of two words; gossypium means cotton and boma means site of hiding. Also called a retained surgical sponge or textilloma, it refers to an accidentally left pack in the surgical field that is forgotten by the surgical team to be removed from the body cavity. A very dreadful complication and can be rightly said as a nightmare for the operating surgeon.¹

Gossypiboma is a rare condition and can be found in any closed cavity like abdomen and chest. They can be confused with neoplastic lesions and abscess cavities. The clinical examination and radiological findings can sometime misguide the physician. Because of the so many medicolegal implications related to them, they are rarely reported. The variable manifestations and complications of gossypibomas makes their diagnosis difficult, leading to significant patient morbidity.²

Case Report

A 36 years old female patient presented to the surgical emergency with complaints of abdomi-

nal pain and fever for seven months. Pain was gradual in onset, dull in character, generalized in nature, mild in intensity, aggravated by change in posture and relieved by medications but for the last two weeks it became severe in intensity. Fever was gradual in onset, low grade, intermittent and relieved by medication. She also had intermittent nausea and vomiting from the last two weeks. She had undergone four caesarean sections in the past, the last one being done two years back.

On examination, her pulse was 100 beats/min, BP: 130/80 mm of Hg, Temperature: 100 F and respiratory rate was 18 per minute. Her general physical examination was unremarkable. Abdominal examination revealed protuberant abdomen with a rounded cystic mass of about 20 x 20 cm with smooth surface & diffuse margins, mildly tender & freely mobile present in the central abdomen. Lower limit of the mass was reachable. There was dull percussion note. All routine labs were normal except total leucocyte count which was 12,000 per cmm. Impression on ultrasound was complex cystic mass in abdo-

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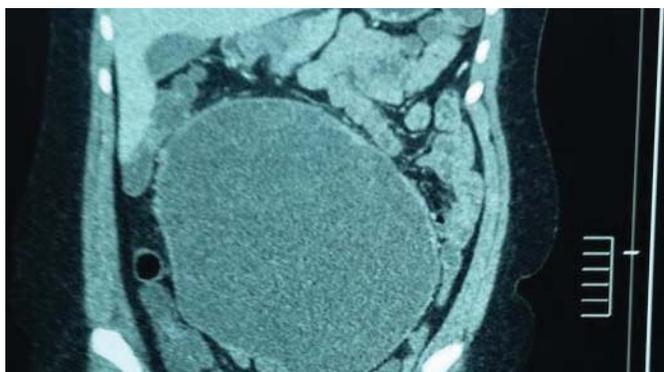


figure 1: CT scan abdomen showing large cystic mass in abdomen



Figure 2: Perioperative picture showing intra abdominal mass

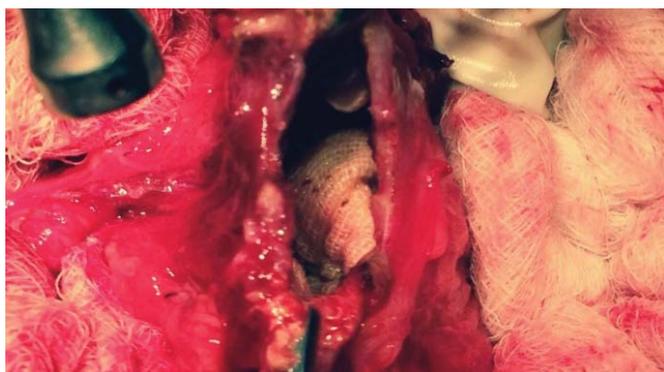


Figure 3: Opening of the cyst wall revealed large surgical sponge



Figure 4: Opening of the cyst wall revealed large surgical sponge

men. CT scan abdomen/pelvis with contrast revealed a large well defined predominantly cystic lesion in mid abdomen extending up to pelvic brim measuring 18cm x 19cm x 13cm. No definite solid component or enhancement was seen on post contrast images. Anteriorly it was abutting anterior abdominal wall and displacing gut loops however interface was distinct with adjacent bowel loops. Differential diagnosis on CT was dermoid cyst, hydatid cyst and mesenteric cyst.

Exploratory laparotomy was carried out through midline incision. Huge cystic swelling adherent to anterior abdominal wall and also with small gut loops was found. Cyst was isolated from the surrounding tissues and saline soaked gauzes were placed all around it. Aspiration of the cyst revealed frank pus. The cyst was opened and almost two liters of thick pus was drained. A large abdominal sponge was present within swelling which was removed.

Discussion:

It is difficult to know the real incidence of gossypiboma because they are rarely reported due to the fear of legal repercussions associated with them. They are most commonly discovered in the abdominal and chest cavity, the frequency being 1 in 4,000.³ Surgical sponge contains cotton which is a harmless material. It has no specific dangerous side effects except adhesions and granulomatous reactions. A retained surgical sponge can lead to two types of responses within the body. An early inflammatory response, within the immediate post-operative period, leading to abscess cavities near the surgical sponge and a delayed response which comprises fibrosis, adhesions and capsule formation around the retained sponge. This delayed response can lead to chronic pain and intestinal obstruction.⁴

Depending upon the location, the presentation of a gossypiboma may be variable. They may be asymptomatic for years or may present early with nonspecific symptoms, mass formation, si-

nus, wound healing delay, fistulas and intestinal obstruction. Intra abdominal retained surgical sponges can also migrate into the gastrointestinal tract and urinary bladder. As this migration is a slow process, that's why the opening via which they are moving is also closing spontaneously, thereby no peritonitis occurs. They cannot pass via the ileocecal junction easily, that's why ileal gossypiboma can lead to intestinal obstruction. Migration into the bladder can cause urinary symptoms.⁵

Diagnosing retained surgical sponge is difficult as symptoms are vague and can present long after the previous surgery, so high index of suspicion is required. In United states, surgical sponges are manufactured with radio opaque threads which can be seen easily through simple x rays but in Pakistan a few centers are using these kinds of sponges. Several Imaging modalities can help in diagnosing RSS. On ultrasound, the sponge may appear as a localized lesion with a shadow posteriorly. Ultrasound is less sensitive in the immediate post-operative days owing to gut gases and wound pain. CT scan findings include a circular lesion whose wall enhances with contrast and has increased density at the center. On MRI, Gossypiboma has low intensity on T1 and high intensity on T2 images.^{5,6}

Management of retained surgical sponge depends on its location. RSS discovered in an asymptomatic patient by chance, should be removed surgically or by endoscopy if it has migrated to GI system.⁵ Risk factors for RSS include; emergency surgery, unstable patient, poor coordination, improper sponge counts, prolonged surgeries and non-experienced OT personals. Members of the surgical team including surgeon, first assistant and scrub nurse share the responsibility for preventing RSS. Separate swab counts are recommended at the start of the surgery (to know the initial number and pick packing mistakes), when a new instrument/swab is used, on change of scrub person, at the closing of a hollow organ within the abdomen, at the start of closure of the main surgical wound and when the operation ends. Distractions should be avoided during the counting process.

The scrub person should be aware of the location of sponges and instruments on the sterile field during the procedure. Surgeon and first assistant should properly communicate when they place sponges in the wound and should perform a meticulous survey of the operative field when the surgery ends.⁷

Conclusion:

Preventing a retained surgical sponge is more important than cure. A methodical approach can help avoiding such complication.

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Role and contribution of authors:

Dr. Muhammad Umar Nisar, resident in General Surgery, did data collection and case report writing and literature search

Dr. Kishwar Ali, senior registrar General Surgery, did literature search and proof reading

Dr. Maryam Nisar, did literature search and editing of the article

Dr. Humera Latif, Medical officer General Surgery, did literature search

Dr. Samer Sikander did literature search

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