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Case Report

Gossypiboma – the forgotten sponge mimicking ovarian tumor

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Introduction

The technical term for "retained sponge" is gossypiboma (from the Latin word – gossypium for cotton and the Swahili boma for place of concealment). It is not a very rare medical error. It can cause serious morbidity and possibly even mortality [1]. Although the real incidence is unknown, it has been reported as one in 1000-3000 for all surgical interventions and one in 1000 for intra-abdominal operations [2].

Case report

Mrs. GK P_4L_4 53 year old woman presented on 14th March 2006 complaining of pain in epigastrium and right hypochondrium since three months. She also complained of dull pain in the perineum while passing urine since one week. There was no history of fever. She had undergone subtotal hysterectomy with left sided salpingo-oophorectomy for fibroid uterus in May 2002. The postoperative then was uneventful.

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Her general physical examination was unremarkable. On abdominal examination there was a low transverse scar in the suprapubic region. On palpation the abdomen was soft and nontender with no evidence of a mass. On vaginal examination a soft 10x10 cm cystic mass was felt nearly filling the whole of the pelvis. It was nontender with restricted mobility.

Ultrasound was suggestive of a large 10x8x7cm well defined complex mass having solid components located posterior to the urinary bladder. MRI revealed a large 10x8x6 cm well defined, well encapsulated retrovesical mass in midline in the pelvis with internal cystic and solid components giving rise to a suspicion of an ovarian tumor.

Her CA-125 was 24u/mL. In view of her clinical findings and imaging reports a provisional diagnosis of a right sided ovarian tumor was made. She was taken up for laparotomy on 17th March, 2006 under intratracheal anesthesia. Right ovary was found to be normal. An encapsulated cystic mass with necrotic wall measuring 10x8 cm was seen between the bladder and the sigmoid colon. Needle aspiration of the mass revealed pus. Pus was drained and the cavity was explored. It showed presence of a cotton sponge which was removed in 6 pieces. Walls of the cyst were excised and sent for histopathology. Right ovary was also removed. After a thorough wash the abdomen was closed. Pus culture was sterile. Histopathology showed unremarkable right

ovary and tube with chronic inflammation and foreign body reaction in the abscess wall. She had uneventful recovery in the postoperative period and was discharged on the 8th postoperative day.

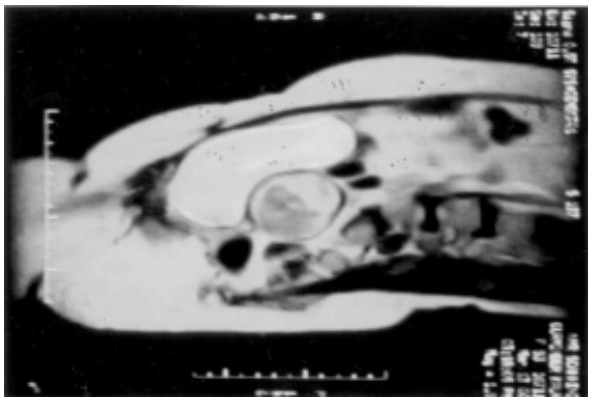

Figure 1. MRI Scan showing a midline well encapsulated lesion posterior to the bladder having solid and liquid components suggesting of malignant lesion.

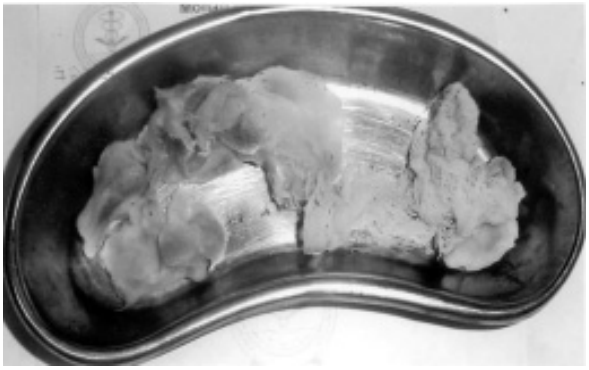

Figure 2. Pieces of abdominal sponge removed from the cavity in the pelvis containing pus and necrotic material.

Discussion

Foreign bodies retained in the abdominal cavity include sponges, towels, artery forceps, pieces of broken instruments or irrigation sets, rubber tubes, etc. However, a surgical sponge constitutes the most frequently encountered object because of its common usage, small size, and amorphous structure[3]. It has been observed that the most common risk factors for retained foreign bodies are emergency operations, unplanned changes in the operating procedure, and surgery on patients with excessive fat i.e. higher body-mass index[2]. Around 50% of the retained gauze pieces are discovered at least five years after surgery[3]. A surgical sponge left inadvertently in the abdomen usually produces one of the two responses. It can either induce an early foreign body response with an active inflammatory component whereby the body attempts to extrude the material (this may lead to the development of fistulas); alternatively, the sponge can induce a fibrinous response that is more indolent and the body creates adhesions and encapsulates the sponge. Patients with this response are at a risk for pseudotumors and subsequent symptoms related to the obstruction or presence of space occupying lesion [4]. Such was the response in this case.

The diagnosis can be made easily in case there is a clinical suspicion. The imaging features of retained gauze pieces or sponge are variable [5]. A plain abdominal x-ray may pick it up. Ultrasound is another diagnostic tool, which will demonstrate foreign bodies. CT and MRI reveal comprehensive details about the mass in most of the cases. Surgery is the most reliable method of removing foreign bodies from the abdomen.

The best approach for gossypiboma is the prevention of this condition, which can be achieved by meticulous count of surgical materials and thorough exploration of surgical site at the conclusion of the operation. Use of radio markers impregnated on textile materials help subsequent diagnosis of a retained sponge. A Gossypiboma also results in serious medicolegal implications for those involved.

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