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Case Report

Gossypiboma: Case Report and Literature Review

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Abstract

The term gossypiboma means forgotten surgical sponge following an operation. It is rare but extremely serious complication which is under reported because of the medicolegal consequences. Gossypiboma has nonspecific presentation which is difficult to diagnose utilising radiological investigations. Often, it remains silent and present long time after the operation. This article reports a 29 years old lady one month post laparotomy for missed loop. She presented with vague pain and vomiting. MRI was conclusive in detecting the retained sponge. laparotomy was performed and a large gossypiboma was retrieved. Though rare, gossypiboma should be included as a differential diagnosis for patients presenting with non-specific pain or chronic lump after any operation.

Keywords: *Gossypiboma; Laparotomy; Missed Loop; MRI; Postoperative Complication*

Introduction

The term gossypiboma is a diagnosis for left surgical sponge or pad after a surgical procedure. The name comes from a mixture of Latin words "Gossypium" (meaning cotton) and Swahili word "boma" (referring to place of concealment) [1,2]. It is a rare surgical complication causing significant symptoms and manifestations. Utmost gossypiboma cases are discovered during the primary many days after surgery; still, they may remain undetected for long time [3,4]. Radiological investigations may point to the exact diagnosis [5]. Only treatment option for those patients is surgery [6]. Gossypiboma presenting late causes diagnostic confusion. Gossypiboma must be kept in mind as a diagnosis for patients with unidentified mass in presence of history of surgery [5-7].

Case Report

29 years old Saudi lady came to outpatient clinic complaining of severe abdominal pain localised in the upper half of her abdomen with on and off vomiting in the last 3 days. She has many attacks of low-grade fever in the past 12 days and she is using paracetamol 500 mg four times daily for this fever. She gave a history of missing intrauterine device (IUD) diagnosed 4 weeks earlier. She had failed laparoscopy to retrieve the missing IUD followed by laparotomy to remove it in the same setting. Since the operation she did not feel normal again but she was discharged fourth postoperative day in stable condition.

On examination, patient looks sick, in pain, pulse 98 B/m, BP 100/50, Temp 37.9 degrees. Abdomen all over extremely tender with defined round mass above the umbilicus 12 by 15 cm laparoscopy scar intact. Patient haemoglobin 11.2 g/dl, WBC's 17 X 10^3, otherwise

all investigations within normal. On abdominal MRI, mass appeared to be foreign object (Figure 1-3). Patient diagnosed as having gossypiboma and consented to have laparotomy.

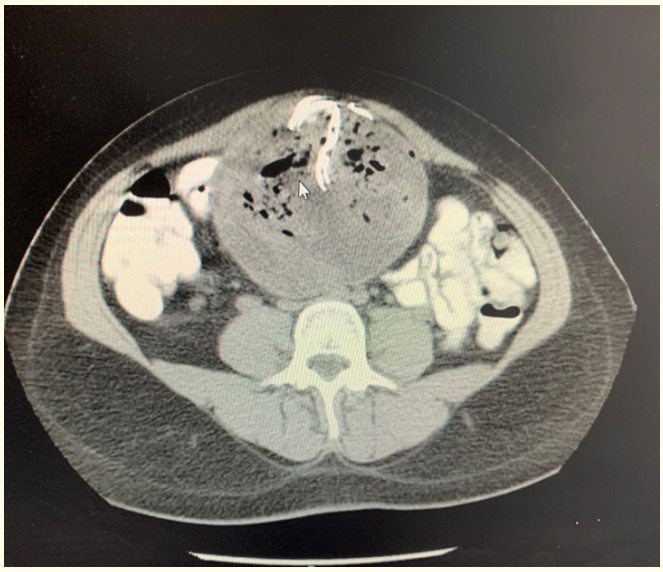

Figure 1

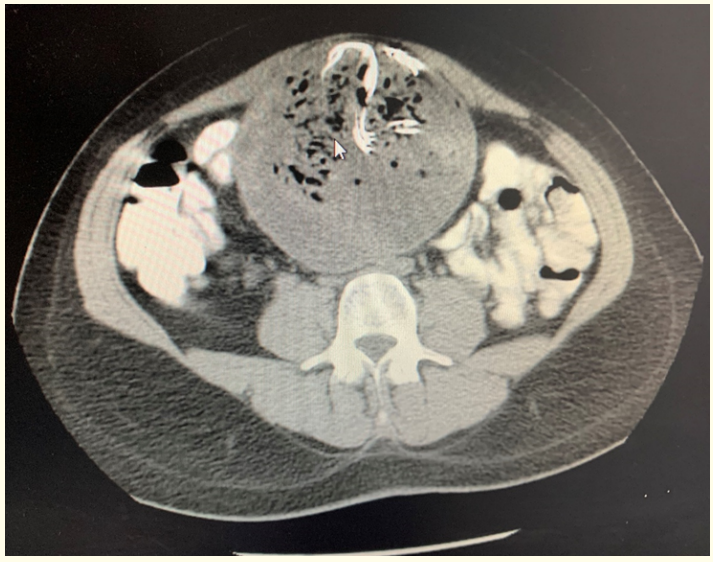

Figure 2

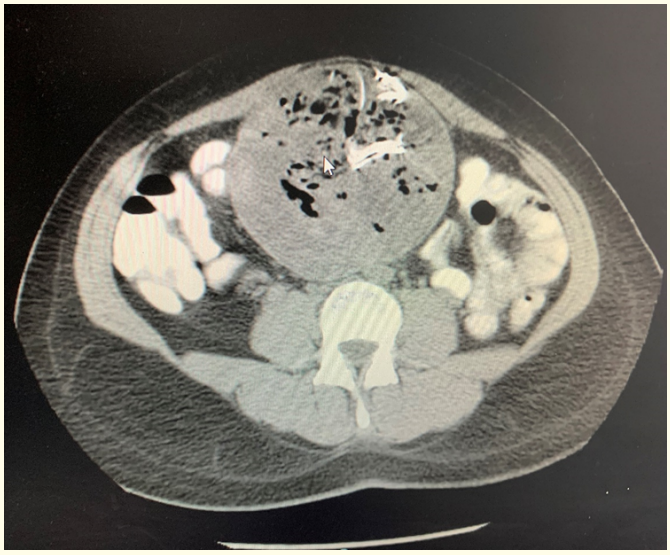

Figure 3

On laparotomy, a rigid and mobile mass in the upper abdomen was found (Figure 4). Mass was 12 X 15 cm ball with minimal attachments to greater omentum. On examination of the bowel, it was intact with no fistulas or bleeding. Patient discharged third day in excellent condition and seen in follow up week 2 and week 4 after that in good condition.

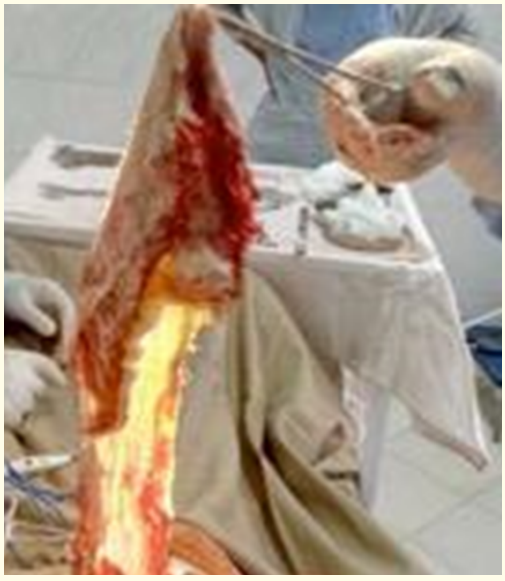

Figure 4

Discussion

Gossypiboma or retained sponge is a crucial topic because it results in significant humiliation. Recurrence may affect 1 in 1000 - 1500 abdominal operations [4]. Anyway, the real number is unknown because reporting may cause impressment [5].

Gossypiboma mostly seen with emergency surgery, unexpected change in the surgical procedure, change in surgical team or scrub nurses, inaccurate sponge counts, long operations, inexperienced staff, inadequate staff numbers, and obesity [6].

The retained surgical sponge triggers aseptic response due to foreign body granuloma resulting in abscess formation [7]. Symptoms depend upon many factors including: location, size of the sponge and the reaction [4-7]. Gossypiboma may show extremes of symptoms and present early or may remain asymptomatic for an extended time. Patients rarely present with abdominal mass or obstruction. Still rarely patients may present with fistula or perforation [6]. In this case the gossypiboma caused vague symptoms for a while after leading to mass formation.

Radiological investigations are sensitive for gossypiboma, but cannot help if the sponge does not have radiological marker [4-6]. Although, within the case described here, MRI were ready to formulate the diagnosis because of the radio-opaque marker (Figure 1-3). Accordingly, suspicion should help to catch this postoperative complication [6,7].

Prevention of gossypiboma is extremely easy through pack count during any operation. Surgeons should perform detailed postoperative wound search before closure [4,5]. It is now strictly mandatory to use radio-opaque marked sponges. Recently, they may introduce radiofrequency chip identification for each sponge [1,3].

Treatment of gossypiboma is that the surgical removal through previous operative site. Sometimes, endoscopic or laparoscopic approaches may be attempted [7]. Anyway there is usually dense adhesion surrounding gossypiboma [6].

Conclusion

Gossypiboma is a rare, preventable, but important, postoperative complication. It is mostly with no symptoms or radiological diagnosis and this delay diagnosis. Gossypiboma may lead to wide variety of complications including perforation and adhesion to neighbouring structures. It is best to avoid gossypiboma, using radio-opaque marked sponges coupled with pre- and postoperative sponge count. Gossypiboma should be included in the differential diagnosis of masses or pains in postoperative patients.

Statement of Informed Consent

Informed consent was obtained from patient in the study.

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