Surgical sponge forgotten for nine years in the abdomen: A case report

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ABSTRACT
INTRODUCTION: Retained surgical sponge or other items in patients' bodies happens more frequently than is reported. Healthcare personnel can forget to remove textile material or instruments during complicated, extended, or emergency surgery. In addition, changes in the operating team can influence the occurrence of such errors.

PRESENTATION OF CASE: We present a case with a symptomatic gossypiboma nine years after a previous cesarean section. A 34-year-old woman was admitted to the emergency room having experienced abdominal pain and fever for the previous month. An abdominal computed tomography revealed an abscess in the lower abdomen.

A laparotomy was performed, and a resection and block were carried out. A surgical sponge was extracted from an omental abscess.

DISCUSSION: Surgical sponges are the most common foreign materials retained (70%) in the abdominal cavity because of their frequent usage and small size. Moreover, a blood-soaked sponge in a hemorrhagic abdomen can be difficult to distinguish from blood.

CONCLUSION: Whenever the accounting for material depends on humans, mistakes will continue to be committed.

A falsely correct sponge count was reported in 71.42% of cases [14]; therefore, a new count system must be developed for post-surgical situations.

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1. Introduction

Gossypiboma is the term used to refer to an intraoperative mistake discovered postoperatively in which one or more surgical sponges, gauze pads, or other form of textile is left behind in the operative field after the patient is closed. Retained surgical sponges may become a nidus for infection and are often grounds for malpractice lawsuits [1].

A retained foreign body after any surgery has medicolegal consequences, including mental agony, humiliation, huge monetary compensation, and imprisonment on the part of the surgeon, as well as increased morbidity, mortality, and financial loss on the part of the patient [2].

Surgical personnel's forgetting textile material or instruments during a procedure occurs during a complicated, extended, or emergency surgery. Additionally, changes to the operative team can influence the making of such errors. Of course, the exact incidence of surgical gauze or other materials left behind in operated-upon patients is unknown [3]. Gossypibomas are most commonly found in the abdomen (56%), pelvis (18%), and thorax (11%) [4].

In 2010, Israel's health ministry enacted an ordinance regarding the counting of instruments and textile materials used in surgery. In 2012, it was forced to declare cases of neglect concerning surgical materials. In the two subsequent years, they found 13 cases. In 2014, a committee for patient safety control concluded that it was necessary to review and correct the ordinance of 2010. Despite precautions, the incidence of this problem is grossly underestimated [5].

In this work, we present a case with symptomatic gossypiboma nine years after a cesarean section.

2. Case report

A 34-year-old woman was admitted to the emergency room with abdominal pain and fever for the previous month; she had undergone an emergency cesarean section nine years earlier. She suffered from abdominal pain for two months after the cesarean section; however, subsequent visits to the treating hospital attributed the pain to surgical site infection. After the last visit, the patient was asymptomatic. In this admission, her laboratory tests were normal, and her blood culture was negative. She was a
healthy woman with two pregnancies: one normal delivery and the last, a cesarean section, as described.

The physical examination revealed tenderness in lower right abdomen without peritoneal signs. Neither tumor nor hernia could be identified.

A computed tomography scan of her abdomen and pelvis demonstrated an intra-abdominal and pelvic abscess covered by intestine in the lower abdomen. No percutaneous drainage was possible due to the intestine coverage.

The patient was informed of the findings and the necessity of surgery, and she gave her consent.

Under general anesthesia, a midline laparotomy was performed in the lower abdomen, starting from the umbilicus. It revealed a large tumor may have been formed by the omentum and small

Fig. 1. The resected abscess an block, showing the pus and foreign body.

Fig. 2. Extracting the surgical sponge from the omental abscess.
intestine. The cecum was explored, and a normal Appendix was found. The small bowel was easily separated from the tumor.

After isolating the tumor conforming to the omentum, the surgeon proceeded to externalize it (Fig. 1). About 300 cc's of pus was released. Subsequently, the tumor was resected en bloc (Fig. 2).

All the cultures of the pus were negative, and the direct visualization shows polymorphonuclear leukocytes. Gauze was removed from the capsulated omentum (Fig. 3).

3. Outcome

The patient had an uneventful postoperative course. She was discharged home on postoperative day 3 and had no complications at the time of this writing.

An exhaustive effort was carried out to find the operative count during the cesarean section, and we found a normal amount of devices and surgical sponges.

4. Discussion

Foreign bodies retained in surgery is still a serious problem. The question is: why?

The incidence is 1:5027 in-patient operations [5]. The risk factors for foreign bodies forgotten in a patient are gynecologic, emergency, and general surgery. Obesity patients also have an increased risk, and changes in the treatment team can also contribute to the issue [6].

Surgical sponges are the most common foreign materials retained (70%) in the abdominal cavity because of their frequent usage and small size. Moreover, a blood-soaked sponge in a hemorrhagic abdomen can be difficult to distinguish from blood [7].

The clinical presentation of a retained foreign body looks like a pseudotumor or migration through the bowel. The symptoms are not necessarily specific; they include abdominal pain, an abdominal mass, rectal bleeding, bowel obstruction, fever, diarrhea, and weight loss [8–10].

We find few cases in the literature that were asymptomatic for nine years. Serra describes a series of seven patients in which the median interval time between the operation and gauze removal was five years [9]. Liessi's paper reported on nine patients with an interval time between the operation and the diagnosis of seven days to 21 years [11].

The problem of a retained foreign body after surgery remains unresolved. One patient per year in every hospital suffers from a forgotten foreign body. Besides the morbidity affecting the patient, a forgotten foreign body could involve a lawsuit for damages against the surgeon and the nurses affected. The compensation that courts decide upon in these cases is extremely high; however, above all, the surgeon loses his or her good name and reputation [12].

Patient safety is one of the most pressing challenges facing health care. The promotion of safety requires that all personnel involved in a healthcare procedure be aware that the potential for errors exists, and that teamwork and communication are essential for preventing errors [13]. However, whenever accounting for material depends on humans, mistakes will continue to be committed. A falsely correct sponge count was reported in 71.42% of cases [14].

We suggest technological applications to definitively solve this problem.

5. Conclusion

Retained sponge and other material remains a major problem for the patient, even today, despite preventive measures taken by the surgeon and the hospital. Patient safety has not been ensured, and more preventive efforts should be made.

Consent

Consent was obtained from the patient and her family after we explained that this publication is anonymous.

This work has been reported in line with the SCARE criteria [15].
Conflicts of interest

The authors declare no conflict of interests.

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Ethical approval

This is a retrospective report in which the consent is not needed.

Author contributions

Sergio Susmallian: Conception and design, Acquisition of data, Critical revision of the article, Final approval of the version to be published.

Benjamin Raskin: Acquisition of data, – Drafting the article, – Final approval of the version to be published.

Royi Barnea: Analysis and interpretation of data, Drafting the article, – Final approval of the version to be published.

Guarantor

Dr. Sergio Susmallian.

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