CASE REPORT

Retained textile foreign body: A rare cause of acute abdomen

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Abstract

A retained textile foreign body in the abdominal cavity following surgery (gossypiboma, textiloma) is an iatrogenic complication that has medicolegal repercussions. This report presents a female patient who was seen in the emergency room with a history of hysterectomy, 8 years prior, due to severe haemorrhage associated with placenta accreta. She complained of moderate abdominal pain, which progressed over the previous 8 days. After physical examination and diagnostic imaging, an appendicular plastron complicated by abscess was diagnosed. During surgery, a mobile, omentum-wrapped mass was observed and excised. Extracorporeal inspection revealed the mass to be partially decomposed dressing gauze saturated with malodorous liquid. The patient recovered well and was discharged with no complications.

Keywords: retained textile foreign body, gossypiboma, acute abdomen

Introduction

Retained textile foreign bodies following surgery can occur in any location, with the abdominal cavity being the most frequent. The estimated incidence varies from 1 per 1000 procedures to 1 per 3000 procedures, although the actual number is unknown due to underreporting in the context of medicolegal and ethical repercussions. Retained foreign bodies go by a variety of names, including gossypiboma, textiloma, gauzoma, and cottonoid, all of which describe a cotton core mass surrounded by a foreign body reaction. Diagnosis is difficult because of the variable and nonspecific clinical picture; therefore, diagnostic imaging is usually necessary. Patient safety strategies, including the surgical safety checklist, are helpful in preventing such mishaps, but safety can only be optimized through the conscientious commitment of the surgical team.

Case presentation

A 40-year-old woman with a 10-year history of type 2 diabetes mellitus, which was well controlled with metformin, was admitted to the emergency room complaining of moderate abdominal pain associated with placenta accreta. She had undergone an emergency hysterectomy due to severe haemorrhage 8 years prior. The patient had also been suffering sporadic and self-limited episodes of mild to moderate abdominal pain for the previous 4 years, mainly over the right hemiabdomen. During this presentation, the physical examination showed a slightly distended, tender, and tympanic abdomen with a mobile palpable mass in the right iliac fossa. She had a heart rate of 102 beats/min, blood pressure of 100/70 mmHg, respiratory rate of 20 breaths/min, and her oxygen saturation was 98%, with an FiO2 of 21%. An abdominal ultrasound scan revealed an appendicular plastron (Figure 1), and a...
contrasted-enhanced computed tomography (CT) scan of the abdominopelvic area revealed an irregular appearance of the ascending colon and the right transverse colon walls, with mural oedema and a homogeneous collection of thickened wall in the right iliac fossa (Figure 2).

Laboratory results were as follows: thrombocytosis (631,000/µL), leukocytosis (6130 leukocytes/µL) with a normal leukocyte differential, haematocrit of 35.9%, creatinine of 0.5 mg/dL, glucose of 127 mg/dL, aspartate transaminase (AST) of 109 U/L, and alanine transaminase of 64 U/L.

A median infraumbilical laparotomy revealed a mobile, omentum-wrapped mass, 10 cm × 8 cm, in the right iliac fossa, which was excised by partial omentectomy (Figure 3). Upon extracorporeal examination, the mass was observed to be partially decomposed dressing gauze saturated with a malodorous liquid (Figure 4). The patient remained hospitalized for 2 days, and she was discharged with no complications.

Discussion

Retained nonabsorbable surgical material, made of a cotton matrix, can cause mild to severe surgical complications, depending on its location and the time of evolution. The medicolegal implications of such cases favour underreporting; therefore, the actual incidence is unknown.

Several factors have been associated with gossypibomas, such as operations performed as emergencies; inaccurate recording of swab counts; unexpected intraoperative events, findings, or adjustments; and patient factors, such as high body mass index (BMI) and female sex.

The clinical picture may include abdominal pain, abdominal mass, rectal bleeding, intestinal obstruction, fever, diarrhoea and weight loss; the time of presentation and duration can vary from 3 days to 40 years, which makes early diagnosis difficult.

The time of presentation depends on the type of tissue reaction generated, either an aseptic fibrinous or an exudative response. Aseptic fibrinous inflammatory reactions cause adhesions around the foreign body or encapsulation of it with omentum and nearby organs. This may not give manifestations in a variable time, or cause insidious evolution; therefore, incidental diagnosis is frequent. On the other hand, the exudative inflammatory reaction, with abscess formation, can occur with a systemic inflammatory response if there is an external opening (similar to an acute abdomen), or with an erosion caused by the foreign body in a hollow organ (intestine) that can lead to the spontaneous expulsion of it, through the mouth or rectum without any eventuality. This type of reaction usually becomes symptomatic in the early postoperative period.
The presented patient was asymptomatic for 4 years, after that, she had sporadic abdominal pain, which intensified few days before her admission to the emergency department; there are few cases described in the literature with a time of presentation of these characteristics. Susmallian et al. describe a case of a woman, 9 years after a cesarean section, who presents abdominal pain and fever; the laparotomy finding was a retained surgical dressing.

All members of the team involved in a surgical intervention should be alert and vigilantly adhere to all implemented strategies to guarantee the patient’s safety. For this reason, the World Health Organization launched the “Safe Surgery Saves Lives” initiative and continues to promote the Surgical Safety Checklist. One of the checklist components is the completion of instrument, sponge, and needle counts before the patient leaves the operating room. This tool has proven to be effective in contexts of adequate application, which implies conceptual and procedural adherence by all health personnel involved in emergency and elective surgeries, thus contributing to the reduction of incidents that threaten patient safety.

**Conclusions**

We described the case of a woman who presented to the emergency room with an acute abdomen. She underwent surgery with the preoperative diagnosis of appendicular plastron with abscess. The surgical procedure allowed the identification of a retained foreign body in the abdominal cavity. Such incidents are preventable through properly implemented patient safety strategies.

**Competing interests**

All authors declare that they have no competing interests related to this work.

**References**


