Spontaneous Transmural Migration of Surgical Sponges

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Postoperative retained surgical sponges or other foreign bodies are usually underreported. Radio-opaque materials are usually detected on follow-up radiological investigations, but radiolucent materials such as sponges create diagnostic problems and clinically mimic various abdominal pathologies. Introduction of spiral computed tomography, magnetic resonance imaging and dedicated ultrasonography has enabled clinicians to find these foreign bodies at the earliest opportunity to avoid disastrous complications. Spontaneous transmural migration and expulsion per rectum of more than one sponge without sequelae is also possible. We report one such interesting case. [Asian J Surg 2006;29(1):44–5]

Key Words: surgical sponges, transmural migration

Introduction

Transmural migration of a retained sponge after laparotomy without symptoms of peritonitis and obstruction is very rare. Recognition of a postoperatively retained foreign body is essential but is often delayed either because of medicolegal implications or because of confusing clinical presentation and nonspecific imaging features. We present an unusual case of two retained sponges, both of which migrated into the intestinal lumen without any sequelae.

Case report

A 19-year-old male presented with a history of passage of a cotton bandage during defaecation. On examination, the bandage was found to be a surgical sponge (Figure 1). The patient gave a history of abdominal surgery 16 months earlier for blunt abdominal trauma sustained in a road traffic accident. Thorough search of his record revealed that he underwent exploratory laparotomy for haemoperitoneum. On exploration at that time, 2.5 L of blood was found in the peritoneal cavity with retroperitoneal haematoma and oozing from the pancreatic surface. After peritoneal lavage, the abdomen was closed. Biochemically, serum amylase was found to be raised to three times normal preoperatively as well as in the immediate postoperative period. Postoperatively, he developed three episodes of haematemesis that subsided, and he was discharged on the 11th postoperative day.

The patient had had mild intermittent pain in the umbilical and epigastric region before passing the sponge. Abdominal examination revealed a firm, ill-defined, deeply tender

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lump in the left hypochondrium. Ultrasound examination raised the possibility of a hyperechoic foreign body within the lumen of the transverse colon with oedematous changes in the colon. Subsequently, spiral computed tomography (CT) confirmed the presence of an intraluminal foreign body with calcification showing mottled air densities in the region of the splenic flexure (Figure 2). The patient was admitted for re-exploration, but the day before surgery, he passed another sponge per rectum (Figure 3). On subsequent clinical examination, the abdominal lump had disappeared. Repeat contrast-enhanced abdominal CT was normal and the patient was discharged.

Discussion

A postoperatively retained cotton surgical sponge, although clinically inert, may serve as a nidus for catastrophic complications. The body’s aseptic fibrinous response creates adhesions and encapsulations resulting in a granuloma or pseudotumour, also referred to as gossypiboma, while on the other hand, the exudative response leads to abscess formation with or without superinfection and fistula formation.1,2 Septic complications present earlier in the postoperative period while aseptic encapsulation may go undetected for years. Retained surgical sponge has been reported to be expelled per rectum as long as 5 years after surgery.3

Radiological diagnosis of retained surgical foreign bodies without radio-opaque markers may be extremely difficult. Coupled with clinical suspicion of retained surgical sponge, there are various signs that can help in making the correct diagnosis of these foreign bodies. Ultrasound usually gives a clue to the diagnosis while spiral CT is almost confirmatory, as in our case. Timely surgical intervention is possible only if there is awareness of such a condition. Usually, these retained surgical sponges present with intestinal obstruction, abscess or fistula formation, but asymptomatic passage of more than one sponge is also possible, as in our case, emphasizing the body’s tremendous defensive mechanism.

References