An unusual late sequel to hysterectomy

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Summary

A case is reported of a large infected foreign body granuloma associated with a retained non-opaque swab presenting 9 years after hysterectomy. An abdominal radiography and whole body computed tomography (CT) scanning demonstrated gas collections in a large abdominal mass. The case underlines the necessity for using radioopaque swabs in all surgical operations.

KEY WORDS: abdomen, foreign body, abscess.

Introduction

A retained sponge is a well-known post-laparotomy complication. The diagnosis may be readily suspected shortly after surgery. However, when symptoms become apparent years later, the diagnosis may be very difficult.

Case report

A 51-year-old woman from Greece was admitted for investigation of a large right-sided abdominal mass. No other abnormal physical signs were elicited and she was afebrile. Nine years previously, she had undergone an abdominal hysterectomy. No further surgical intervention had occurred thereafter. Two months before admission, she was investigated for acute epigastric pain and vomiting.

The plain film of the abdomen showed a large soft tissue mass on the right side with numerous gas pockets (Fig. 1). These abdominal gas collections were not present on abdominal X-rays taken 2 months previously. Ultrasound showed a large, well-defined mass lying adjacent to the inferior aspect of the liver and displacing the inferior pole of the right kidney. The mass had a mixed internal echo pattern.

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FIG. 1. Plain X-ray showing large mass which contains gas bubbles.

The computed tomography (CT) scan showed a large low density mass (6-14 H units) with well-defined margins which enhanced minimally after intravenous contrast injection. The mass contained multiple irregular pockets of gas (Fig. 2).

Correlating these findings with the patient's clinical condition and country of origin, a diagnosis of an infected hydatid cyst was considered.

At laparotomy, a cystic mass, 18 cm in diameter, was found in the peritoneal cavity, partly adherent to the liver. It had a smooth outer surface and was easily enucleated. The specimen had a 1.5 cm thick fibrous capsule with evidence of chronic inflammatory reaction, and the contents were a mixture of fluid and fibrous material. Histology under polarized light showed gauze fibre (Fig. 3).

FIG. 2. CT scan, in supine position, showing low density mass closely applied to the liver. Numerous air pockets are present within the mass.

FIG. 3. Microscopic examination of specimen under polarized light showing foreign bodies consistent with gauze fibres.

Discussion

Fragments of gauze introduced at operation may result in foreign body granuloma formation. This has been confirmed experimentally (Sturdy, Baird and Gerein, 1967). Most patients with a retained sponge develop complications within weeks or months. The inflammatory response to the foreign body may be either an exudative or an aseptic fibrinous form (Olnick, Weens and Rogers, 1955; Wells, Hyun and Mitchell, 1963). The exudative form results in abscess formation. The aseptic fibrinous form results in encapsulation following on low grade inflammatory reaction. It may gradually increase in size and present as a tumour or be an incidental finding at laparotomy (Carsky and Haswell, 1978). This is the most common form encountered when the sponge has been retained for more than 5 years.

Sponges are easily detected on X-ray if they contain radiopaque markers (Williams, Braagg and Necson, 1978). Gas trapped between the fibres gives a characteristic whorl-like configuration. Differential diagnosis of the gas pockets on plain X-ray include a pyogenic abscess and a faecaloma. The gas was probably due to infection by gas-forming aerobic enteric bacteria.

Ultrasound features in cases of foreign body granulomata, with thick irregular echo boundaries and irregular internal echoes, have been described

(Sekiba, Akamatsu and Niwa, 1979). A previous report has described the CT appearance following retained surgical sponges (Parienty *et al.*, 1981).

The differential diagnosis of an infected foreign body granuloma should be included in patients with a history of previous abdominal surgery who present with a mass which contains pockets of gas on X-ray examination.

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