Gossypiboma

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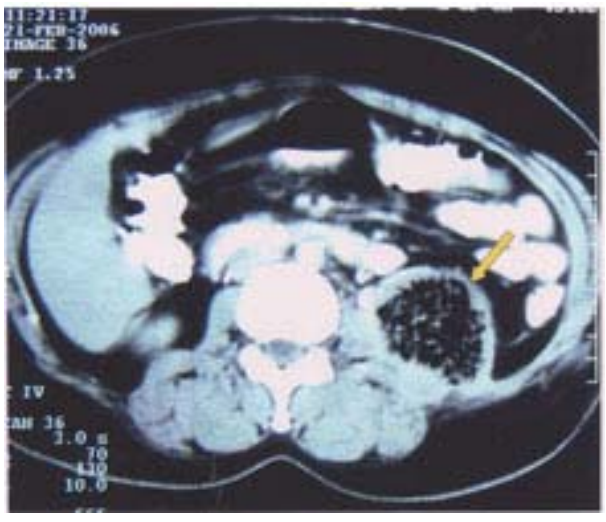
Introduction

Gossypiboma denotes a mass of non-absorbable surgical material with a cotton matrix ('gossypium' in Latin language is 'cotton'; 'boma' in Kiswahili language is 'place of concealment') [1]. It can cause serious morbidity and even mortality. Surgeons should be aware of the possibility of a gossypiboma to prevent it and of the radiological features to diagnose it early.

Case report

A 42-year old woman successfully underwent left pyelolithotomy to remove a staghorn calculus. Her surgical wound healed except at one place which became a sinus with a serous discharge. Despite a course of antibiotics the sinus persisted. Abdominal computed tomographic scan showed a cystic mass postero-inferior to the kidney in the perinephric space (Figure). It had a thick wall and a central area of low attenuation containing curvilinear opaque structures and gas bubbles. Urine and samples of the serous discharge were negative for acid-fast bacilli and the Mantoux test was negative. Surgical exploration showed an inadvertently retained gauze swab in the perinephric area with encapsulation. Removal of the gauze swab cured her sinus.



Figure

Discussion

A sinus may occur after pyelolithotomy in the presence of unrecognised xanthogranulomatous pyelonephritis or renal tuberculosis [2]. Inadvertently retained gauze swabs or infected non-absorbable sutures also have the potential to cause a sinus after renal surgery. Incomplete removal of renal tissue may cause a non-healing sinus after nephrectomy [3].

Retention of surgical sponges is rare. They can cause an aseptic fibrinous response that results in adhesions, encapsulation leading to granuloma formation with minimal symptoms or an exudative reaction leading to abscess formation [4]. Retained sponges in the abdominal cavity may present with intestinal obstruction, pseudotumour, granulomatous peritonitis or perforation into nearby viscera like the bladder [5]. Retained sponges in the bladder can lead to formation of calculi. Retained surgical sponges in the retroperitoneal space after renal surgery leading to sinus formation has not been reported before.

Computed tomography is useful for recognition of retained sponges although the appearance is variable [6]. The spongiform pattern seen in this patient is characteristic but uncommon. It is due to trapping of air in the sponge. A low density, high density or complex mass is found in the majority of cases, but these patterns are not specific. Sometimes a thin high density capsule may be seen. Rim or internal calcification may also occur.

Gossypiboma is frequently misdiagnosed because it is not anticipated. This may lead to unnecessary investigations and radical surgical procedures. It should be considered in the differential diagnosis of non-resolving unusual problems in any post-operative patient.

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