

Unexpected Anatomopathological Diagnosis of a Right Adrenal Mass

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Abstract We report a case of a 43-year-old male who had a right partial nephrectomy for renal trauma. He was asymptomatic for 28 years before presenting with intermittent right flank pain. Imaging showed a tumor-like mass of the right adrenal gland. The anatomopathological of the resected specimen confirmed the diagnosis of textiloma.

Keywords: *textiloma, gossypiboma, surgery*

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1. Introduction

Textiloma and gossypiboma are referred to as a surgical gauze or towel retained inadvertently in the human body during surgery and the resulting reactions [1]. It may present serious diagnostic, therapeutic, and medico-legal problems. Such a foreign body can mimic a tumor during clinical and radiological examinations. [2]

We describe a case of textiloma in a patient presenting with tumor-like mass of the right adrenal 28 years after a right partial nephrectomy. We also review the literature on the diagnosis and management of similar cases.

2. Case Report

A 43-year-old male with a medical history of a right partial nephrectomy for a renal trauma in 1992, surgery

for head trauma in 2002 and lymph node tuberculosis treated 5 years ago, who reported biliary colic type pain 5 years ago without jaundice, vomiting or pruritus. All evolving in the context of preservation of the general state and apyrexia.

Physical examination did not show major issues except for mild tenderness over the right hypochondrium.

Abdominal ultrasound objectifies a large solid formation, heterogeneous, +/- rounded and well limited, avascular, centered on the right liver, measuring 16 × 13mm. Abdominal CT shows a voluminous right retroperitoneal mass, inter hepato-renal, fairly well limited, of tissue density, containing peripheral and central calcifications in places with heterogeneous zones, increasing heterogeneously measuring 16 × 17 × 14 cm. This suggests an adrenal tumor. (Figure 1).

Biological examinations were normal with no inflammatory and infectious signs or anemia. An endocrine workup, including urine catecholamine and cortisol levels, was normal.

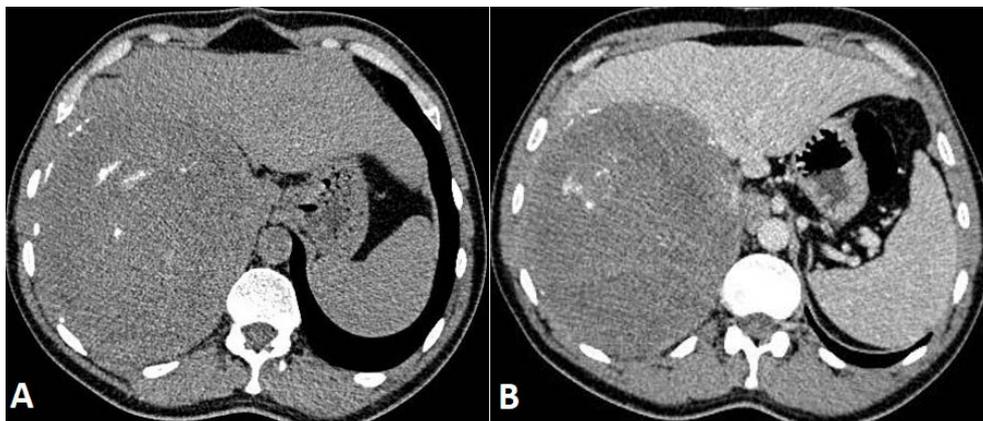


Figure 1. CT showing a voluminous right adrenal mass of tissue density, containing peripheral and central calcifications in places with heterogeneous zones. (A: before injection, B: after injection)



Figure 2. The macroscopic aspect of the resected specimen confirming the diagnosis of textiloma

Surgical exploration by subcostal incision revealed a large bulging retro-peritoneal adrenal mass pushing back the underside of segments 6 and 7 (leading to atrophy of the right liver) with right postero-lateral parietal adhesions. Laborious and meticulous extraction of the mass of its reports. The anatomopathological result returned in favor of a diffuse necrotico-hemorrhagic reorganization with reaction to foreign body confirming the diagnosis of textiloma of a textiloma. (Figure 2)

3. Discussion

Textiloma is a rare incident caused by retained postoperative foreign bodies. The reported incidence varies between 1 in 1000 and 1500 of all intraperitoneal operations. Probably, the condition is underestimated owing to diagnostic difficulties and medico-legal implications associated with it [3,4].

Textilomas represent complications regarding all forms of surgery: general (52%), gynecologic (22%), urologic/vascular (10%), and orthopedic/spinal surgery (6%). It is interesting to note that emergency operations are implicated in only 30% of the reported cases of textilomas, whereas 70% appear after elective operations. [5] To date, the case reported by Taylor et al [6] features the longest period from surgery to the manifestation of symptoms. They detected an intrapulmonary foreign body 43 years after thoracotomy. The present case was diagnosed 28 years after renal surgery.

There are two types of foreign body reactions: (1) the exudative-type tissue reaction, which leads to acute abscess formation, and (2) aseptic fibrous tissue reaction,

which involves slow adhesion formation, such as encapsulation and granuloma formation. [7]

The clinical presentations of textilomas are highly variable, ranging from incidental observation to severe postoperative complications. In the early period after surgery, these forgotten materials can lead to infections, abscess formation, chronic fistulae, and septic conditions [8]. However, 20% remain clinically asymptomatic for many years before causing a foreign body reaction in the surrounding tissue, with new clinical signs indicating significant mass effect [9].

Imaging is the key to diagnosis and includes plain radiograph, ultrasonography, computed tomography, magnetic resonance imaging, and specific radiological examinations (if and when indicated). 2010.

On plan X-ray, the radiopaque marker attached to the sponge may be easily detected; however, due to the possibility of folding, twisting, or disintegrating over a while, the surgical material and marker may be difficult to be identified on a radiograph. 2017.

The typical ultrasonic performance usually presents as a well-defined mass including internal wavy hyperechoic focus, encompassing a hypoechoic rim, and having a strong posterior shadow. However, owing to the clinical rarity, this performance is often misinterpreted. [10,11].

On CT scan, which is the preferred modality, gossypiboma containing gas bubbles and a whorl-like appearance is characteristic. The lesion may appear as a cystic lump with internal spongy appearance mimicking teratoma or dermoid cyst. Occasionally, it may manifest as a hypodense mass, which has a thick peripheral rim and usually misinterpreted as a new-onset tumor or a recurrent tumor [12,13,14]. It can be difficult in the diagnosis of a

gossypiboma if no radiopaque marker is embedded on the sponge itself.

Magnetic resonance imaging usually shows a well-defined mass with a fibrous capsule that exhibits a low signal intensity (hypo-intense lesion) on T1-weighted image sequences and high signal intensity (hyperintense lesion) on T2-weighted images [15,16]. A wavy, striped, or spotted appearance may also be seen.

To prevent severe gastrointestinal complications or to overcome the accompanied medico-legal problems, appropriate surgical treatment should be performed as early as possible when gossypiboma is detected or suspected. The most commonly adopted approach is surgical removal through the previous operative site, but treatments like percutaneous, endoscopic, or laparoscopic approaches were also attempted and reported [17].

The prevention of textiloma is the best approach. The primary preventive measure is counting the pieces of surgical gauze [18]. Small sponges should not be used during laparotomy and any sponges used should have radiopaque filaments. A plain X-ray film should be taken before ending the laparotomy procedure. The surgeon should completely explore the cavity for foreign materials before closing the patient after any operation [18].

4. Conclusion

Textiloma is a rare and preventable challenging medical situation. Its diagnosis should always be suspected in front of an abdominal mass in a patient with previous surgical intervention. Radiological diagnostic methods are of great value, both in preventing the problem and in diagnosing its presence. The conclusive diagnosis is made during surgery. Prevention remains better than the cure.

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