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What thought to be a cardiac tumor turns out to be a remnant of former surgery

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Case Report

Abstract

BACKGROUND: A textiloma is a rare retained surgical swab with probable serious post-operation complications.

CASE REPORT: Here, we reported an asymptomatic patient who had past history of coronary artery bypass grafting (CABG) fourteen months ago and referred to our institute for left atrial mass removal. Echocardiography and chest computed tomography (CT) scan revealed a non-homogenous non-mobile mass and a heterogeneous lesion with low-density as well as high-density areas with spot calcification and gas bubbles at left atrium level, respectively.

CONCLUSION: Despite being rare after CABG, textiloma should be considered in the differential diagnosis in case of any suspicious chest mass even in asymptomatic patients.

Keywords: Textiloma; Coronary Artery Bypass Grafting; Gossypiboma

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Introduction

A gossypiboma or a textiloma is a non-absorbable cotton matrix mass which is due to a negligence during the surgery with a granulomatous reaction around it.[1] Although it is a rare condition with the incidence of 1 case per 1000 to 10000 surgeries,[2] it can cause serious complications due to the misdiagnosis. Also, because this phenomenon is considered as a medical error and legal implications, it seems that its incidence is more than that reported in the literature.[3] Textiloma usually occurs in abdominal surgeries, but may also occurs following all other surgeries such as intrathoracic surgeries.[4] We will report an asymptomatic patient with the history of coronary artery bypass grafting (CABG) who referred for cardiac tumor work-ups.

Case Report

A 65-year-old man was referred to the cardiac surgery department of our hospital, Imam Khomeini Hospital, Tehran, Iran, for left atrial mass removal. He was completely asymptomatic. His past medical history was CABG fourteen months before admission. In fact, the suspicious mass was detected during a follow-up echocardiography. Physical examination showed a regular pulse, heart rate was 72 beats per minute (BPM), blood pressure (BP) was 136/86 mmHg, and body temperature was 36.8 °C. Lung auscultation was normal and clear but a systolic cardiac murmur was heard in the left sternal border. Other physical examinations were normal.

The transthoracic echocardiography (TTE) was repeated in our hospital. The left ventricle size and function were normal [ejection fraction (EF): 55%]. A non-homogenous non-mobile mass at the left atrium level was detected (Figure 1).

The adhesion site of mass could not be defined in TTE. There was no significant stenosis in mitral. TEE was performed; interestingly, no view was detected, maybe because of the mass-like shadow.

The contrast-enhanced computed tomography (CT) scan of the chest, which was with the patient, was reviewed. It showed a heterogeneous lesion with low-density as well as high-density areas.

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Figure 1. Transthoracic echocardiography (TTE) demonstrated a non-homogenous non-mobile mass at left atrium level.

Spot calcification and gas bubbles were also present (Figure 2).

Figure 2. Chest X-ray in posteroanterior (PA) and lateral views revealed a mass posterior to the left atrium.

After observing the gas bubbles in mass at CT scan, a chest X-ray [posteroanterior (PA) and lateral] was performed (Figure 3).

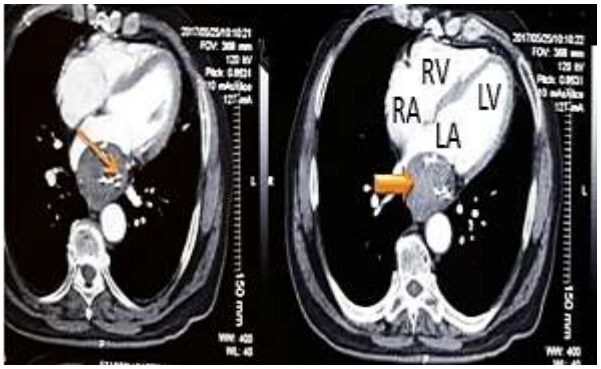

Figure 3. Chest computed tomography (CT) scan in axial view demonstrated a heterogeneous mass with spot calcification and gas bubbles.

The retained sponge was seen exactly posterior to the left atrium. Patient underwent operation due to concerns about abscess formation and fistula to adjacent organs. At surgery, the presence of gossypiboma was confirmed in posterior area of left atrium. Histopathological study demonstrated fragments of gauze with a thick fibrous wall calcification and necrosis. The patient's surgery was carried out without any complications, and in the follow-ups, the patient did not mention any problems.

Discussion

The term textiloma or gossypiboma (also called retained surgical swap, gauzoma, muslinoma, or cottonoid) is used to describe a mass within a patient's body comprising a cotton matrix, which usually refers to a retained surgical sponge or gauze and the surrounding foreign body reaction.[5]

It is a rare condition but associated with serious complications. The most common sites have been reported to be in the abdomen. The sponges can remain silent or induce a series of inflammatory reactions that cause wound infection, abscess, fistula formation, haemoptysis, bilious expectoration, intestinal adhesions or obstruction, aseptic foreign body granuloma, or sepsis.[6] Sponges used during surgical procedures should contain radiopaque markers. Conventional radiology is the most common imaging technique utilized in the postoperative period for the detection of retained sponges. The most characteristic appearance of retained sponge in CT scan is an encapsulated and low-density heterogeneous mass with spongiform appearance with whorls like a gas bubble.[7,8]

Radiographic detection of the sponges on anteroposterior (AP) projections is difficult because of exposure factors and metallic densities such as sternal sutures. Knowledge of the typical location of a lost sponge and use of lateral radiographic projections may aid in early detection of this rare complication.[8]

The best treatment for gossypiboma is surgical exploration in symptomatic patients; there may be a role for conservative approaches in selected asymptomatic patients, particularly if there has been a prolonged retention time.[9] Despite being rare after CABG, textiloma should be considered in the differential diagnosis in case of any suspicious chest mass even in asymptomatic patients. Radiological work-ups especially the chest CT scan is the best way for diagnosis and also assessment of its probable complications.

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Conflict of Interests

Authors have no conflict of interests.

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