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RESEARCH ARTICLE

INTRAABDOMINAL GOSSYPIBOMA

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Abstract

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Gossypiboma is composed of non-absorbable surgical material with a cotton matrix. Because gossypiboma is due solely to human factors and is a severe medicolegal issue, continuous education should be considered.

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Introduction

Retained postoperative foreign bodies, of which sponges are the most common, is a rare condition and due solely to human factors [1,2]. Gossypiboma (also called textiloma or cottonoid) is a term used to describe a mass in the body that is composed of a cotton matrix surrounded by a foreign body reaction [3]. A foreign body left behind after an operation is a severe medicolegal issue and often under-reported. [4,5]. We report a case of gossypiboma in a pregnant lady post lower segment cesarean section(LSCS).

Case Report

A 23 year old pregnant lady was admitted in our institution for leaking of amniotic fluid and she was post dated by one day. She underwent LSCS. Her postoperative period was uneventful and she was discharged on sixth postoperative day. About two weeks after LSCS she developed pain abdomen, fever and swelling right side of lower abdomen. She was readmitted for these complaints. The blood cell count, blood chemistries, and urinalysis were all within the normal range. Ultrasonography abdomen was done which showed well defined mixed echotexture mass lesion in right iliac fossa and in pelvic cavity with linear hyperechoic foci with posterior acoustics. Provisional diagnosis of gossypiboma was made and computed tomography (CT) abdomen was done.

Discussion

The term gossypiboma is derived from the Latin word gossypium, meaning cotton, and Kiswahili word boma, meaning place of concealment [6]. This is an uncommon surgical complication with an estimated incidence of

1/1500 [7]. Gossypibomas are most frequently discovered in the abdomen. However, their occurrences in the thorax [8], extremity [9], central nervous system [10], and breast[11] have also been reported. Gossypiboma can be difficult to visualize and may be overlooked, or an erroneous diagnosis may be made. Ultrasound, CT or magnetic resonance imaging (MRI) is usually a necessary procedure, especially in chronic cases, because the lesion may mimic a malignant mass[12-14]. They are valuable tools in facilitating the diagnosis in most cases. CT is a practical tool for detecting radio-opaque foreign bodies [1,2,4,15,16]. The most specific imaging finding of a gossypiboma is a radiopaque marker on plain radiography, followed by entrapment of air bubbles in a spongiform pattern on CT [17,18]. The typical spongiform pattern is the most characteristic CT sign of gossypiboma; another sign associated with the condition is an inhomogeneous, low-density mass with a thin high-density capsule that shows marked enhancement after administration of contrast material. The mass may contain wavy, striped, high-density areas that represent the sponge itself [1,3]. In a series of 13 cases of gossypiboma found 3 months to 8 years after surgery, Lars Kopka et al. [18] suggested that the spongiform pattern with entrapped gas bubbles is the most specific CT finding for gossypibomas with an incidence of 54%. They also found that gas bubbles within a gossypiboma decrease slowly with time in an experiment. CT is a practical tool for detecting possible gossypiboma in both symptomatic and asymptomatic cases. When no radio-opaque marker is seen on plain X-ray or CT, ultrasonography may show a hyperechoic encapsulated mass, but the characteristic internal structure of the gauze granuloma is best visualized on MRI[2,19]. Theoretically, the magnetic resonance spectrum can distinguish inflammatory pseudotumors from neoplastic lesions [6,12]. Positron emission tomography reportedly shows gossypiboma as a lesion with unusual rim enhancement, which may also be potentially interesting in differential malignancy [20-22]. Gossypiboma is usually under-reported and is a severe medicolegal issue. Human errors cannot be abolished, but must be reduced to a minimum. In this regard, continuous medical education is the cornerstone.

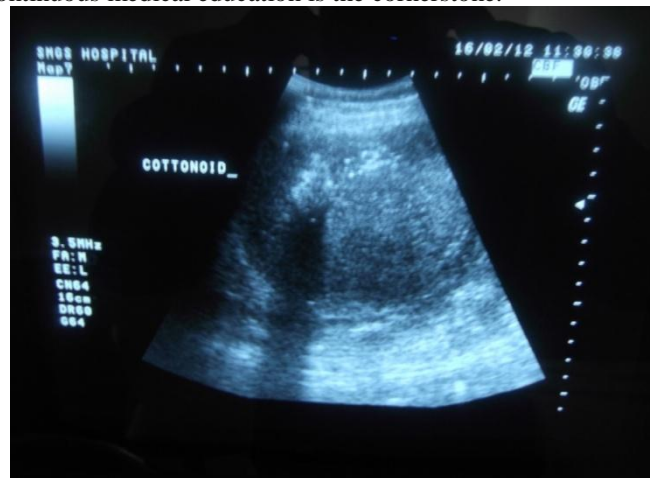


Fig. 1 Ultrasonography of abdomen showing well defined rounded heterogeneous mass lesion with internal hyperechoic foci representing air bubbles and distal acoustic shadowing.



Fig. 2



Fig. 3 Single slice Siemens somatom CT scan in 23 year old lady, the scout film showing multiple small round gas shadows in right lower abdomen [white arrow].



Fig. 4 Single slice Siemens somatom CT in 23 year old lady showed cystic lesion with internal spongiform appearance with mottled gas bubbles and hyperdense capsule.

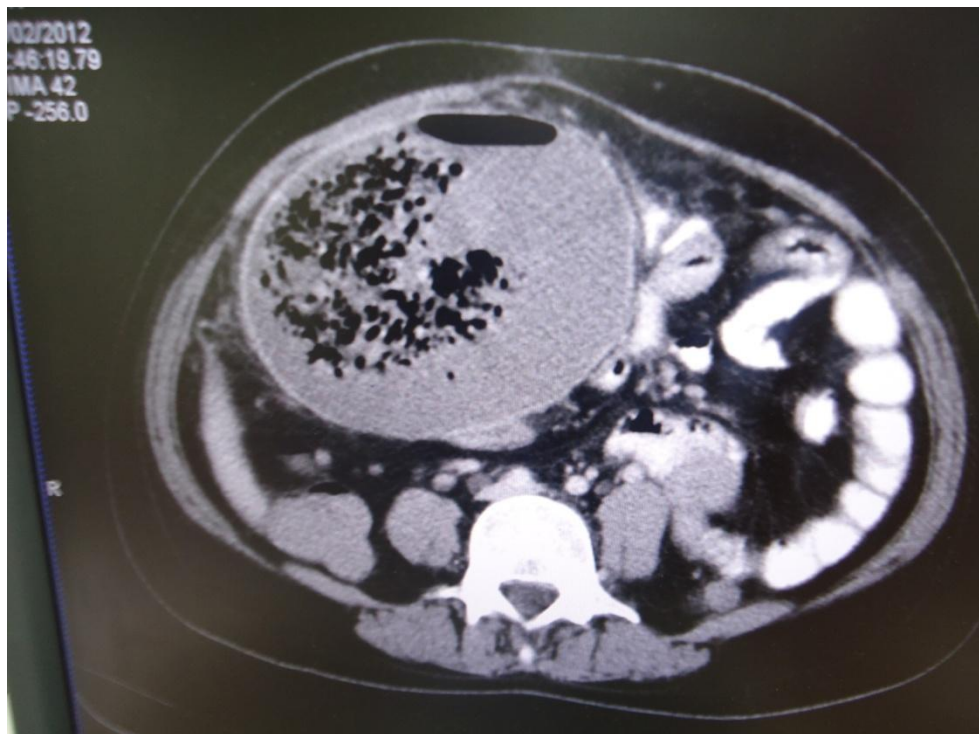


Fig. 5

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