

A Rare Case Report of Gossypibioma Presenting 17 Years after Surgery: Focus on Histopathology Findings

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ABSTRACT

Gossypibioma is a rare entity described as retained surgical sponge or gauze inside any of the body cavities. It usually has a very vague presentation depending on the site of involvement and is difficult to diagnose radiologically as well as on histopathology. We report a case of 42 year old female patient who presented with pain abdomen, anorexia and fever. On abdominal CT scan, possibility of duodenal diverticula with inflammatory/neoplastic thickening was suggested. Partial gastrectomy was done and histopathologic findings revealed findings of a gossypibioma.

Key Words: Gossypibioma, textiloma, muslinoma

INTRODUCTION

The term gossypibioma is used to describe a surgical sponge or gauze or a laparotomy pad left unknowingly in the patient's body after a surgical procedure. The term is derived from a Latin word "Gossypium" which means cotton and Swahili word "boma" which means a place of concealment¹. It is a rare entity and can cause serious complications. Other terms used include textiloma, muslinomas, cottonwood and gauzeoma². However, most common amongst these synonyms is gossypibioma³. These lesions can remain undetected for many years or can be detected during first few days of surgery⁴. Various radiological investigations such as ultrasonography, CT scan, MRI and

endoscopy are helpful in reaching a diagnosis. We report a case of a 42 year old female diagnosed with gossypibioma after 17 years of surgery.

CASE REPORT

A 42 year old female presented with pain abdomen, fever and anorexia. General physical examination revealed pallor. History of cholecystectomy 17 years back was elicited. Ultrasonography revealed a mass in the pyloric antrum with air containing thick walled structure and upper abdominal lymphadenopathy. A possibility of duodenal diverticulitis with inflammatory or neoplastic thickening was given. Gastrovideoscopy revealed a gastric ulcer, forest III type and gossypibioma in the first part of duodenum (image1). An attempted removal with foreign body forceps lead to an ooze, so the removal was withheld. Partial gastrectomy was done and specimen was sent for histopathological examination.

Gross examination of the specimen revealed loss of rugal folds, a perforated ulcer of 0.5 cm in diameter near the distal resection margin and a thickened area of 8x4x0.8 cm on the outer surface which was communicating with the ulcerated area. Microscopic examination of the ulcerated area revealed focal mucosal ulceration with underlying inflammatory granulation tissue with inflammation extending into submucosa and muscularis propria bundles. Focally intracytoplasmic foreign body fibres were identified in the cytoplasm of

multinucleated giant cells. The thickened area on serosal surface revealed fibrinopurulent material, underlying granulation tissue, edema and areas of fibrosis. Two lymph nodes revealed sinus histiocytosis and follicular hyperplasia with aggregates of histiocytes in cortex. A diagnosis of xanthomatous and foreign body giant cell reaction secondary to gossypibioma was made.

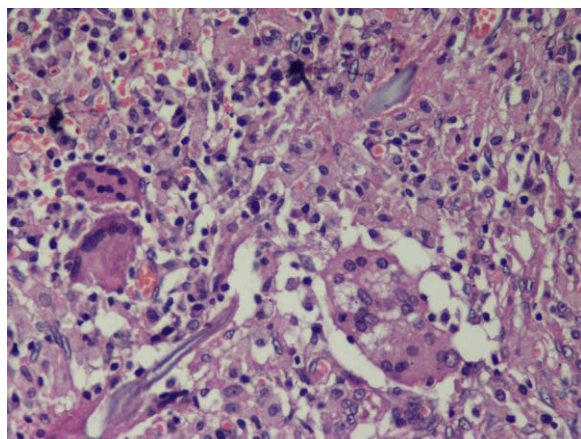


image1: foreign body giant cell reaction with fibres of left over gauze piece(h and e ,400x)

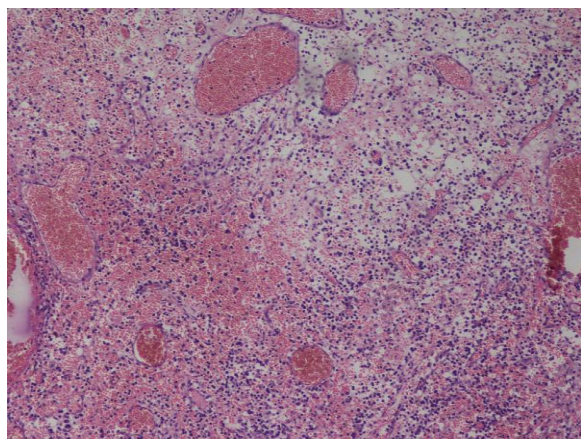


image 2:granulation tissue near the thickened area(h and e, 100x)

DISCUSSION

Gossypibioma is rare and not only is a serious complication but also a medico-legal issue⁵. The incidence of gossypibioma that has been reported is between 1 in 1000-1500 abdomen surgeries⁶. It is difficult to know the actual incidence of such cases which are less often reported due to the medico-legal implications⁷. The most common risk factors that lead to foreign body retention include emergency surgeries,

surgery involving more than one team, change of nursing staff, long surgery, increase body mass index and unexpected changes during the procedure⁸.

The histopathological examination reveals two types of response to a retained surgical sponge. The first response is an exudative inflammatory reaction leading to an abscess formation and second is an aseptic reaction to the cotton material which leads to fibrosis and presentation as a mass⁹. The second type of response was seen in our case and initial presentation on USG and CT scan was that of a mass in pyloric antrum. The endoscopic findings lead to the identification of a gauze piece embedded in the wall of duodenum and confirmation was done by histopathological examination. Gossypibioma can have a variety of presentation depending on its site although mostly the patients remain asymptomatic or present with vague symptoms¹. Our case also presented with vague symptoms such as pain abdomen, fever and anorexia.

The scope of detecting gossypibioma on radiological imaging is limited, since the sponge or gauze does not have any radiological marker on it. Hence the gauze can mimic a hematoma, granulomatous process, abscess, cystic mass or a neoplasm¹⁰.

Treatment of gossypibioma includes surgical removal either through the same site of incision or through laparoscopy. Dense adhesions are usually seen because of the chronic nature of the disease¹. In our case also the gauze was embedded in the wall of duodenum which on attempted removal led to an ooze.

CONCLUSION

Gossypibioma is a rare but serious complication of surgery. It can lead to medicolegal issues and causes a variety of postoperative complications that can even mimic a neoplasm leading to unnecessary surgeries. History plays an important role in diagnosis aided by radiological investigations and histopathology examination as radiological examination

alone can be deceptive. Gossypibioma should be kept as a differential in cases where no evident mass is seen on gross examination.

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