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Case Report

Gossypiboma: diagnostic impasse - a case report

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ABSTRACT

Gossypiboma/textiloma is a retained foreign body reaction to a surgical gauze or towel unintentionally retained inside the body following surgery, which is often missed to be diagnosed. The foreign body reaction to the retained gauze pieces' aid in the diagnosis of this rare condition. We report a case of a 60-year-old lady patient with a history of open abdominal surgery, presented with chief complaint of pain abdomen and swelling. After a series of inconclusive laboratory and radiological investigations, she underwent a diagnostic laparoscopy which led to the confirmation of the diagnosis of gossypiboma. Gossypiboma is a two-faced sword, as it not only causes increased morbidity and mortality in the patients, but also carries significant concern on medico legal fronts. Therefore, it must form an integral part of differential diagnostic approaches in any postoperative patient who presents vague symptoms, and it is recommended to use the latest systems to reduce the incidence of gossypiboma.

Keywords: Diagnostic laparoscopy, Foreign body, Gauze, Gossypiboma

INTRODUCTION

Gossypiboma, is a serious, avoidable and infrequent iatrogenic complication of surgery. Gossypiboma/ textiloma is a retained foreign body reaction to a surgical gauze or towel unintentionally retained inside the body following surgery.[1] The foreign body reaction to the retained gauze pieces' aid in the diagnosis of this rare condition. This can present in two forms, either an exudative inflammatory reaction leading to abscess formation causing early detection and removal of retained sponge, or by an aseptic fibrotic reaction to the cotton fibre, developing into mass which maybe encapsulated by omentum and intestine, thus developing intestinal fistulas, pseudocysts or obstruction.[2,3]

Since this entity is frequently missed on radiological investigations, it must form an integral part of differential diagnostic approaches in any postoperative patient who presents with vague symptoms such as pain, infection, palpable mass, anorexia or unexplained weight loss with inconclusive radiological findings.[4]

CASE REPORT

A 60-year-old lady patient, homemaker by profession presented with chief complaints of pain abdomen and swelling in the peri umbilical region more towards the left upper abdomen for the last 10 days. She had low grade fever on and off and experienced decreased appetite and constipation. She had experienced similar episodes in the past but was relieved with conservative medications. She underwent open abdomen surgery 7-8 years ago, for which the record was unavailable but was confirmed with the presence of a left para-median scar.

Her relatives gave a history of some cyst being removed in the previous surgery; however, the post-surgical outcome was uneventful as per the attendants.

Clinical findings and diagnostic assessment

Clinical examination showed a globular, non-mobile cystic lump palpable in the left upper quadrant. Ultrasound Abdomen showed an exophytic lesion about 15×16 cm abutting the left lobe of liver, pancreas and anterior abdominal wall. Contrast enhanced computed tomography (CECT) Abdomen showed a similar lesion raising query of pseudocyst pancreas. Upon admission, magnetic resonance cholangiopancreatography (MRCP) was done which revealed the presence of a large, sub-diaphragmatic, thick walled, septated, predominantly cystic heterogenous mass anterior to the stomach with calcification raising possibility of hydatid cyst. Echinococcal profile came out to be negative thus creating a diagnostic dilemma.

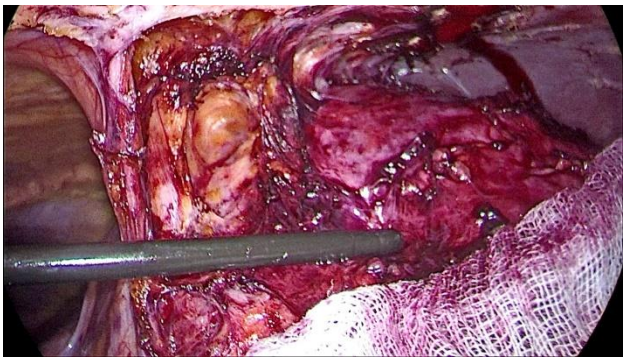

Figure 1: Further dissection of the lesion showing its adherence to anterior abdominal wall.

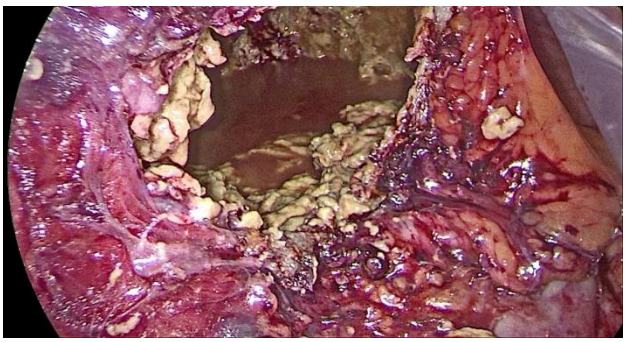

Figure 2: Further exploration of the opened cyst confirming the presence of gauze pieces and surrounding granulomas.

Therapeutic interventions

A diagnostic laparoscopy was performed. It showed the presence of adhesions over previous scar site and presence of a cystic mass anterior to stomach, abutting the liver and anterior abdominal wall in the epigastric region (Figure 1). Thus, with the suspicion of hydatid cyst in mind, hypertonic saline soaked gauze was placed underneath and cystic wall opened (Figure 2). Surprisingly, multiple gauze pieces with localised granuloma formation was found which was successfully retrieved laparoscopically (Figure 3) and hemostasis was achieved using oxidised regenerated cellulose clinicel fibrillar (Healthium Medtech, India). The laparoscopic ports were closed in layers using antimicrobial triclosan coated polyglactin 910 suture (Trusynth Plus Neo, Healthium Medtech, India). Histopathology confirmed the diagnosis. The post-operative period was uneventful.

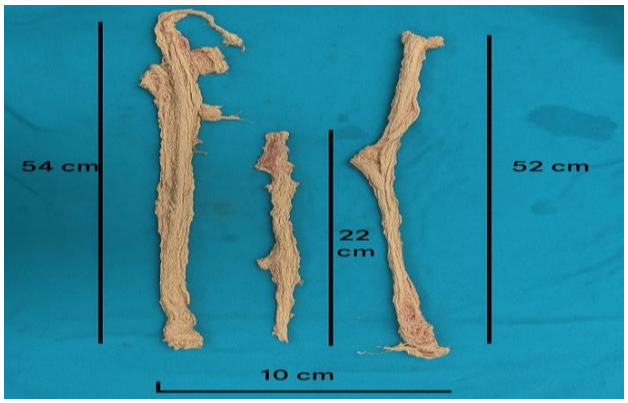

Figure 3: Final picture of the extracted specimen showing the sizes of all the recovered gauze pieces.

DISCUSSION

Gossypiboma not only causes increased morbidity and mortality in the patients, but also carries a significant concern on medico-legal fronts. Although, underreported, the documented evidence of incidence of gossypiboma is 1 in 1000-1500 abdominal surgeries.[5]

These gossypiboma usually occur in emergency surgeries, sudden change in surgery, high body mass index of the patient, inadequate number/training of the staff and hurried sponge counts in unstable patients.[6] However, this is an avoidable and the utmost care must be taken to avoid such complications.

Gossypiboma frequently occurs after gynaecological or emergency upper abdominal surgeries and the most common anatomical sites are abdomen (56%), pelvis (18%) and thorax (11%). It rarely occurs in orthopaedic, urological and neurosurgeries.[7] It presents non-specific symptoms and can remain asymptomatic for long intervals of time after the initial surgical interventions.

Various radiological modalities can be of help; however, they are limited in scope as the cotton fibre doesn't carry any radio-opaque markers. It can radiologically mimic granulomatous process, haematoma, abscess formation, cystic mass or neoplasm.[6]

The aforementioned, confounded by vague clinical presentation forms an arena of diagnostic dilemma. Hence, the most important diagnostic tool is the high index of suspicion in all the patients with history of previous surgical interventions. Newer systems such as computer assisted sponge counting devices and radio frequency chip identification by bar code scanners are promising and may reduce the incident of gossypiboma.[8]

CONCLUSION

Gossypiboma is a preventable entity which requires following a set pattern of sponge counting in the operation theatres during and after the procedures. A practice of cautious exploration of the wound cavity prior to closure of wound should be inculcated by all surgeons. It is recommended to use the latest systems to reduce the incidence of gossypiboma.

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