

Gossypiboma/textiloma mimicking as tumour recurrence

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Abstract

A surgical sponge accidentally left in a surgical wound, called a textiloma or gossypiboma, is underreported in literature due to medicolegal consequences. Abdominal textiloma may be asymptomatic or present serious gastrointestinal complications such as bowel obstruction, perforation or fistula formation because of misdiagnosis. It may mimic abscess formation in early stage or soft-tissue masses in chronic stage. If there is an intraabdominal abscess resistant to catheter drainage in the postoperative period or an intraabdominal soft tissue mass with a history of previous surgery, textiloma should be included in the differential diagnosis. Whirl-like spongiform pattern especially on CT, well-defined border and fibrous capsule especially on MRI can help in the diagnosis of textiloma. We describe a case of intra-abdominal textiloma mimicking abscess and soft tissue tumour on CT and MRI examination.

Keywords: Textiloma, Gossypiboma, Abscess, Tumour, CT, MRI.

Introduction

Intraabdominal textiloma is the most common reported iatrogenic foreign body.¹ It is an infrequently reported condition that may be recognized incidentally during the early postoperative period but may also lead to serious complications or remain asymptomatic for years.² The exact incidence of intra-abdominal foreign bodies is not known because of underreporting or unrecognition.³ Their presentation is variable, depending on location within the peritoneal space. Clinical symptomatology may vary from mild abdominal pain to serious complications such as bowel or visceral perforation, obstruction, fistula formation or sepsis.⁴ We describe a case of intra-abdominal textiloma mimicking an abscess in early postoperative period and soft tissue tumour in late postoperative period on CT examination. Retained surgical sponge should be kept in mind when there is intraabdominal abscess resistant to drainage in postoperative period. Spongiform pattern of lesion may

be helpful for preoperative diagnosis.

Case Report

A 50-year-old female patient was referred to general surgery clinic in our hospital in September 2011, for severe abdominal pain. The pain was constant and localized into whole abdominal quadrants. Physical examination revealed marked tenderness in whole abdomen, questionable in terms of peritonitis. Her laboratory tests including WBC (white blood cell) and CRP (C-reactive protein) were normal. The patient had been operated due to pelvic pleomorphic sarcoma in the outside center 3 months before admission. We don't know what kind of surgical procedure was performed. We couldn't obtain sufficient information from the patient because of outside surgery. CT examination was performed. CT showed peripheral enhancing fluid collection with air-fluid level mimicking abscess formation adjacent to the anterior abdominal wall (Figure-1A, 1B). Catheter drainage was performed at the same day. Patient was discharged after one week drainage procedure. One month after discharge, patient was admitted to general surgery with abdominal pain, similar to the previous presentation. CT and MRI examinations revealed mild regression but solid appearance of the lesion (Figure-2, 3). Gossypiboma was considered due to surgical history. Biopsy was requested by surgeon to exclude possible recurrence of tumour. We obtained the sponge material from lesion by tru-cut biopsy (Figure-4). Then, surgical sponge was successfully removed by laparoscopic surgery. The postoperative period was uncomplicated and patient was discharged on sixth postoperative day.

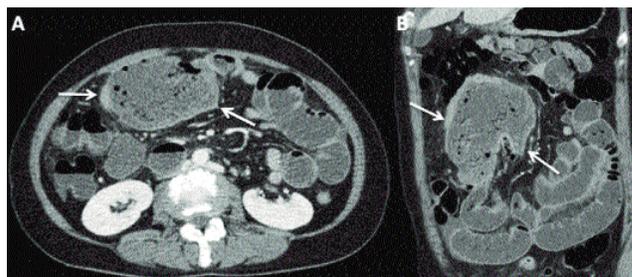


Figure-1 A, B: Contrast enhanced axial(A) and coronal CT images(B) shows large fluid collection with air components at adjacent to the abdominal wall (arrows). It mimics an abscess.

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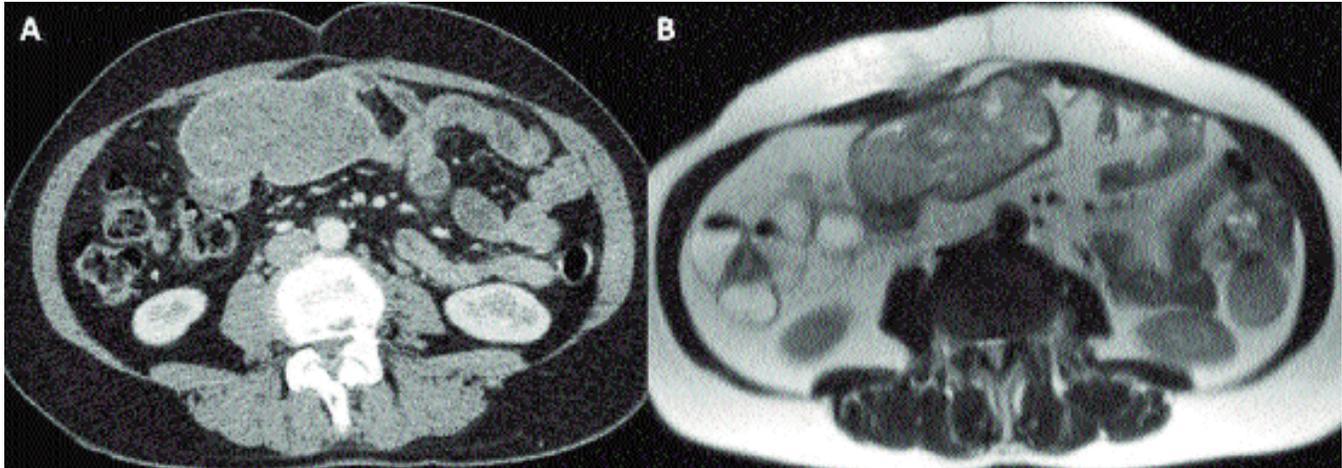


Figure-2 A, B: Contrast enhanced axial CT image shows solid appearance lesion with thick enhanced wall (A); and T2-weighted axial image revealed spongiform pattern (B).



Figure-3: Biopsy revealed sponge material.

Discussion

Intra-abdominal textilomas are rare but they may cause serious results after any abdominal surgical procedure. The frequency of textilomas during surgical procedures can vary from 1 in 1000 to 1 in 10 000 interventions.⁵ The real frequency is hard to establish because of medicolegal consequences.⁶ Most intra-abdominal foreign bodies may remain asymptomatic, and it can be detected incidentally after many years. The risk factors related are emergency surgical circumstances, unplanned procedural changes, a change of operating room teams and miscounting surgical equipment and sponges. Proper counting of the surgical equipment can prevent similar iatrogenic problems.⁷ Miscounting surgical sponges could be the cause in our patient. Since, our patient was operated at another center the exact cause of the problem could not

be ascertained. Clinical manifestations of retained surgical sponges are related to bacterial contamination and location of the sponge within the body cavity. Such foreign bodies often mimic tumours or abscesses both clinically and radiologically.

Olnick et al. have further classified textilomas into acute necrotic forms and chronic forms.⁸ The acute form, in which an exudative reaction dominates the clinical picture, along with abscess formation and skin fistulas, is symptomatic in the early postoperative period. The differential diagnosis in such cases includes postoperative collection, haematoma and non-foreign-body abscess. The first presentation of our case was consistent with acute necrotic form. In the chronic form, adhesions and encapsulation eventually lead to the development of a foreign-body granuloma. Asymptomatic forms are sometimes discovered incidentally. A delayed presentation may be seen months or even years after the initial surgery. Adhesions and encapsulation are common features of gossypiboma, and the lesion may present as a mass. Similarly, our case was detected as a solid appearance on CT and MRI in the follow up period after catheter drainage. In such cases, the differential diagnosis typically includes tumours. Ultrasound findings include well-circumscribed lesion appearance featuring a waved hyperechoic area with a dense acoustic shadowing.⁹ Whirl-like spongiform pattern is one of the distinctive CT findings of textilomas but this finding does not appear everytime.¹⁰ Magnetic resonance imaging generally demonstrate a well-defined mass with a fibrous capsule that shows a low signal intensity on T1-weighted images and hyperintensity on T2-weighted images.¹¹ In the literature, spongiform pattern of gossypiboma is well described on CT. We observed same spongiform pattern

on T2-weighted MRI examination, as well.

Conclusion

Retained surgical sponges can be diagnosed with some helpful radiological signs. However, they can be confused with other conditions. They should be kept in mind when there is intraabdominal abscess resistant to drainage in postoperative period. Spongiform pattern of lesion may be helpful for preoperative diagnosis. Additionally, when an intraabdominal mass presents with previous operation history, textiloma should be included in differential diagnosis.¹²

References

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