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Transgastric migration of gossypiboma: A preventable complication

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Abstract Gossypiboma is term given for retained piece of cotton/sponge during surgery. The incidence of gossypiboma has described as 1 in 1000-3000 surgeries. Incidence is underestimated because of underreporting due to fear of medico-legal litigation and extreme criticism by media. Intraluminal migration is a rare complication of gossypiboma. Small intestine is most common intraluminal site followed by duodenum. Here, we report sixth case of transgastric migration of gossypiboma.

Key words Endoscopy, gossypiboma, transgastric migration

Introduction

Gossypiboma/textilomas is a term given for the retained piece of cotton/sponge during surgery. The incidence of gossypiboma has been described as 1 in 1000–3000 surgeries.[1] Incidence is underestimated because of underreporting due to fear of medico-legal litigation and extreme criticism by media.[2] In spite of recent advancement in surgical techniques, problem is still persisting. Here, we report a sixth case of transgastric migration of gossypiboma.

Case Report

A 24-year-old male was presented with recurrent non-bilious vomiting and upper abdominal pain. Nine weeks ago, he underwent open cholecystectomy for cholelithiasis. On examination, there was epigastric tenderness. The blood investigations were normal. He was treated initially with empirical medical therapy without any significant improvement. He was referred for esophagogastroduodenoscopy which showed a large gauze piece eroding the gastric wall at lesser curvature and protruding into lumen. Endoscopic removal of sponge was tried but failed [Figure 1a and b]. Later on, surgical removal of gossypiboma was performed.

Discussion

Two usual responses to retained gauze-piece are exudative inflammatory reaction with formation of abscess, or aseptic with fibrotic reaction to develop a mass. In the early postoperative period, these retained materials can lead to infections and abscess formation. However, it may remain clinically asymptomatic for long period, and then cause a foreign body reaction in the surrounding tissue. The interval between the surgery and the diagnosis of retained gauze pieces may range from the same day to 28 years.[1,3] Gossypiboma should be suspected when there is prolonged fever, vomiting, lump, or the symptoms suggestive of bowel/gastric outlet obstruction with a past history of surgery.

Intraluminal migration is a rare complication of gossypiboma as compared to abscess formation. Small intestine is the most common intraluminal site followed by duodenum. Transgastric

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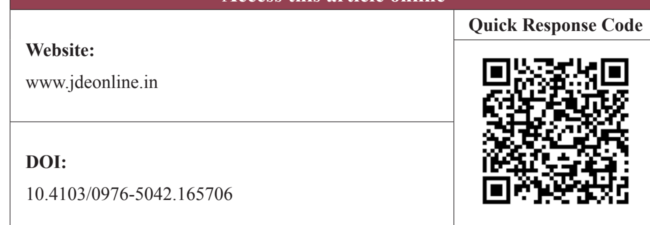

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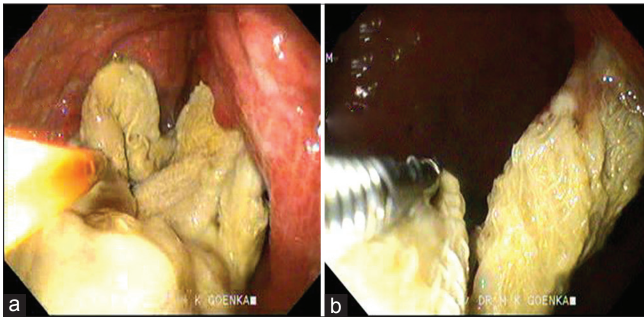

Figure 1: (a and b) A gossypiboma eroding the gastric wall and protruding into the gastric lumen

migration is very rare. To our knowledge, this is sixth reported case of transgastric migration.[4,5]

Gossypiboma are usually diagnosed by radiological methods. Plain radiography of abdomen may diagnose gossypiboma if a textile material is calcified or tagged with radioopaque markers. Sometimes, a characteristic "whirl-like" pattern may be seen in the abdominal radiograph. A hyper-reflective mass with a hypoechoic rim and a strong posterior shadow is the characteristic feature seen in ultrasonography. Computed tomography (CT)-scan is a very good diagnostic modality. A CT-scan finding of a sponge is a rounded mass with dense central part and a thick peripheral rim. Other features include a whorl-like pattern with trapped air bubbles and cystic masses with infolded densities.[6,7]

Surgery is the recommended treatment of gossypiboma. Because of transluminal migration and resulting fistulous tract formation, endoscopic treatments are mostly unsuccessful.[5]

The gossypiboma is an example of medical negligence in which an expert to establish the standard of care is not required. Although any member of surgical team including nurses may be responsible for the mistake, in some jurisdictions, the surgeon is held responsible for the mistakes of other members of the surgical team. In some countries, medical negligence cases are often commenced as criminal proceedings, as cases of personal injury. The claims about medical negligence can be subject to trials in both of penal judgment and compensation trial. As per the Turkish Penal Code, if a doctor is reluctant for diagnosing gossypiboma and reporting a colleague to juridical authorities, he/she may face penal sanctions.[2]

Conclusion

Gossypiboma is a preventable surgical catastrophe, which can be avoided by a careful exploration of the abdomen, meticulous count of surgical materials, and use of surgical gauze with radio-opaque marker impregnation or electronic tagging. Gossypiboma must be reported to remind us about a preventable mistake.

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Conflicts of interest

There are no conflicts of interest.

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