An interesting case of lump abdomen—gossypiboma

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INTRODUCTION

Lump abdomen is one of the commonest modes of presentation in different abdominal conditions encountered in routine surgical practice. However, this case of gossypiboma is being reported since it is extremely rare and has medico-legal implications. The case was seen at a small peripheral military hospital without facility for advanced investigations but patient wanted relief from the medical condition.

CASE HISTORY

A young woman of 35-years presented with pain abdomen, constipation, occasional vomiting and painless mass in upper and central part of abdomen of six months' duration, which had been growing, insidiously to its present size. Symptoms were suggestive of subacute intestinal obstruction. She did not give any history of loss of weight, weakness, fever and was not anaemic. She gave history of having undergone tubectomy operation five years ago at a civil hospital near her hometown. On examination, there was mild abdominal distension with minimal tenderness around epigastric and umbilical region. There was no ascites and no organomegaly. There was well-healed tubectomy scar at subumbilical region measuring 2 cm × 2 cm. A firm lump was localised at umbilical region extending up to epigastrium. It was 10 cm in diameter, spherical in shape and freely mobile in all directions. Plain radiograph and ultrasound abdomen were done and were inconclusive. Barium swallow follow through and CT scan were not available locally, being a small station. Clinically, an omental cake of tubercular origin was kept in mind and she was subjected to exploratory laparotomy due to persistence of symptoms. Intra-operatively, a firm mass entangled in omentum and adherent to transverse colon and small bowel intensively and densely at multiple places was revealed. Lump was dissected out intact and damaged small bowel was repaired by resection anastomosis about 30 cm away from fixed jejunal loop. Section of the mass revealed a well

ensheathed and encapsulated abdominal operation swab of size 10 inches × 6 inches in diameter (Figure 1). Patient had uneventful postoperative recovery.

DISCUSSION

Gossypiboma (from Latin gossipium—cotton and Kiswahili boma—place of concealment) or retained surgical sponge is a ubiquitous medical error that is avoidable. It can cause serious morbidity and possibly even mortality.¹ Usually it is suspected in an abdomen subjected to surgery previously.² It has been reported following surgical procedures such as abdominal, thoracic, cardiovascular, orthopaedic and even neurosurgical operations.^{3,4} Nonspecific clinical symptoms and inconclusive imaging findings may preclude the diagnosis.⁵ The possibility of a retained foreign body (RFB) should be in the differential diagnosis of any postoperative patient who presents with pain, infection, or palpable mass. The first diagnostic modality to rule out a RFB should be a CT scan and often it will be the only test needed. The CT findings of a sponge usually describe a rounded mass with a dense central part and an enhancing wall. Other features of retained sponges or towels include a whorl-like appearance with trapped air bubbles and cystic masses with in-folded densities. It was difficult to reach the diagnosis in our patient prior to surgery due to lack of conclusive investigative modalities.

Recently, *New England Journal of Medicine* published an article about risk factors of RFBs. The three significant risk

Figure 1 Actual photograph of specimen (Gossypiboma).

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factors were emergency surgery, unplanned change in the operation, and BMI. The counting of sponges and instruments was not a significant predictor in the multivariate model. Although all three factors were significant, the nine-fold increase in risk associated with emergency surgery was impressive. In addition, in 88% of the cases where there was a RFB and counts were performed, the counts were falsely called correct. The authors recommended “radiographic screening” at the end of high-risk cases as a possible adjunct to improve detection of RFB.⁴

The best approach in preventing this problem is by meticulous count of surgical materials in addition to thorough exploration of surgical site at the end of the surgical procedures. However, this method has been found to be fraught with its problems of faulty “correct counts”. Gossypiboma carries medico-legal implication due to the presence of the foreign body inside the abdominal cavity of the patient. It is an avoidable problem and the surgeon may face litigation. Moreover, Gossypiboma may be misdiagnosed as a tumour and may lead to unnecessary invasive diagnostic procedures or extensive extirpative surgery, which may result in further complications.⁶

Various studies have been done to develop methods and equipment to overcome the problem of retained sponge in the body. Electronic tagging of surgical sponge has been researched and found to be very useful and effective method to prevent RFB.^{7,8} Gibbs et al^{9,10} have done a comprehensive review on the subject.

Our case is interesting as a big abdominal swab was pushed inside the abdominal cavity through a very small tubectomy operation wound. The young surgeons must keep this in mind that retained swabs and foreign body is not only harmful to the patient but to the surgeon in the era of consumer protection and welfare.

CONFLICTS OF INTEREST

None.

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