Gossypiboma- Manifesting as a Diagnostic Puzzle

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ABSTRACT
The term gossypiboma indicates a mass of cotton that is missed accidently in the body after surgery. Accidental retention of any foreign body usually requires another surgery and increases the morbidity and mortality. We here report a 20 year old female who presented with lower abdominal pain, vomiting and constipation. She had a history of previous two cesarean sections; last one was performed one year back in another country. On the basis of history and examination the diagnosis of intestinal obstruction was made. Exploratory laparotomy was done and resection anastomosis of terminal ileum was performed. When resected part was opened, a gauze piece was found and diagnosis of gossypiboma made. Although the intraluminal migration of retained surgical gauze has been reported but complete intraluminal migration without leaving any scar is very rare. In spite the fact that gossypiboma is rare, it should be considered in the differential diagnosis of intestinal obstruction in patients who has previous history of laparotomy.

Key words Gossypiboma, Intestinal Obstruction, Abdominal sponge.

INTRODUCTION:
Retained foreign object after operation is a serious mishap in the world of surgery. Gossypiboma is a surgical term which implies for a mass of cotton that is missed accidently during an intervention.\(^1\) Cases of gossypiboma are rarely diagnosed before operation. Such cases are generally underreported because of its medicolegal nature.\(^2\) We report a rare case of gossypiboma who presented after one year of cesarean section.

CASE REPORT:
A 20 year old female presented with the complaints of recurrent abdominal pain and vomiting for three months. She experienced pain in the lower abdomen. It was severe, slow in onset, constant and dull in character. It was associated with vomiting, constipation, peripheral abdominal distension and low grade fever. She gave the history of significant weight loss after one year of cesarean section. Patient complained of exaggerated bowel sounds that the person sitting next to her can easily hear.

Her past history revealed two cesarean sections; the last one was performed one year back in another country. Abdominal examination revealed tenderness on the left side. Investigations showed raised leukocyte count of 15,200x10\(^9\) and thrombocytopenia (platelets-16,000x10\(^9\)). Ultrasound showed distended abdomen with gases, mild hepatomegaly and thick walled urinary bladder. On CT scan, jejunal and proximal ileal loops appeared moderately dilated showing air fluid levels. The distal ileal loops were collapsed. Findings were most likely of small bowel obstruction at the level of terminal ileum. A large mixed density area was seen in pelvis in midline posterior and superior to the bladder and anterior to rectum. It showed motilled air lucencies and a curvilinear high density area. A clinical diagnosis of intestinal obstruction was made.

Exploratory laparotomy was done and distended ileum with a gauze piece of 10cm x 4cm half foot proximal to cecum was found (Fig. I & II). Gut wall was edematous and multiple adhesions were found between the bowel loops. Effected part was resected and anastomosed. After surgery, patient made an uneventful recovery.

DISCUSSION:
Gossypiboma seems like a tip of an iceberg.\(^2\) One of the studies reported an incidence of 1 out of
300-1000 of all surgical interventions and 1 out of 1000-1500 of intra-abdominal operations.\textsuperscript{3} The first case was reported by Wilson in 1884.\textsuperscript{4} According to one of the reports, interval between causative operation and diagnosis of gossypiboma varies and ranges from 11 days to 28 years. The most common (69\%) type of foreign body left inside the abdomen during surgery is laparotomic gauze.\textsuperscript{5}

It is one of the rare causes of intestinal obstruction while migration of it into the bowel is much rarer as compared to abscess or granuloma formation. Transluminal migration of retained sponge occurs as a result of inflammation in the intestinal wall that evolves to necrosis. The intestinal loop closes after complete migration of sponge.\textsuperscript{6} Surgical sponges are made of cotton that is an inert material and do not cause any specific reaction in the body but forms adhesions and granuloma.\textsuperscript{1} Patient may be asymptomatic or could present with acute or relatively delayed symptoms of acute abdomen.

Retained foreign object can cause two types of pathological responses. Either through exudative reaction which leads to the abscess formation with or without superimposed bacterial infection or aseptic fibrinous reaction that can result in adhesion or encapsulation ultimately leading to granuloma formation.\textsuperscript{7} In our case, a foreign body granulomatous reaction was observed.

These retained foreign bodies can be diagnosed preoperatively with the help of plain radiography, ultrasound, CT, MRI and gastrointestinal contrast series. Complications of gossypiboma include bowel erosion, fistulae, abscess, adhesions, obstruction, bleeding or chronic pain, visceral perforation, sepsis or even death can occur in serious conditions.\textsuperscript{8} Our case presented with the complaints of intestinal obstruction after one year of last cesarean section. Gossypiboma is rarely included in differential diagnosis of acute abdomen. In cases with the past history of surgery, it can be thought of as differential diagnosis.

REFERENCES:


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