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Case Report

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A rare sequel of gossypiboma

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ABSTRACT

Surgical materials (gauze) are sometimes inadvertently left within the body after surgical operations. Cotton materials are the most commonly forgotten. The implications for the patient as well as the doctors are grave. This presentation aims to rekindle awareness of the phenomenon of gossypiboma and highlight the implications and stress prevention. This case highlights the necessity for considering gossypiboma in patients presenting with abdominal symptoms after recent abdominal surgery. Herein we tend to report the case of a 60-year-old man with C/O abdominal pain and not tolerating feeds. Past surgical history of open cholecystectomy 2 years back. CECT Abdomen and pelvis - inconclusive. However, diagnostic upper endoscopy unconcealed a 10×10 cm retained surgical gauze in the pylorus multiple attempts to remove endoscopically failed. The patient underwent emergency exploratory-laparotomy for the same. 30×30cm surgical abdominal pad dissected out of the stomach. Though rare, retained foreign body ought to be thought about in the differential diagnosis of surgical abdominal pain in post-operative cases. The condition carries harm potential to the patient and medico-legal litigations.

Keywords: Retained products, Forgotten cotten material, Complication, Medicolegal issues

INTRODUCTION

Gossypiboma is a term used to denote a mass of cotton material, usually gauze, sponges, and towels, unwittingly left in the body cavity at the end of a surgical operation.[1,2] The word, gossypiboma, derives from two different languages: the Latin word "Gossypium" which means textile or cotton, and also the Swahili word "boma" which means place of concealment.[3] Different terms used include textiloma and gauzoma.[1,4] Gossypiboma was first represented by Wilson in 1881.[1,5]

Other surgical materials might equally be forgotten Within the body, such as artery forceps, pieces of broken instruments or irrigation sets, scissors, needles, and rubber materials.[4,6,7] However textile materials are the commonest.[4,8] Gossypiboma can occur after virtually any type of operation: it has been reported after intrathoracic, orthopedic, intraspinal, and neurological operations as well as breast surgery, but most common is after intra-abdominal/ pelvic surgery.[1,10,11] Kaiser found 55% retained sponges after abdominal surgery and 16% after vaginal delivery.[12]

CASE REPORT

A 60-year-old male presented in Navi Mumbai hospital with complaints of difficulty in swallowing for 6 months (solid> liquid). Complaints of generalised weakness complaints of abdominal discomfort after food intake and relieved by self-induced vomiting. The patient underwent open cholecystectomy in 2019. Patient was conscious and oriented. He had pallor+ but no icterus, cyanosis, clubbing, lymphadenopathy, and pedal edema pulse rate-80 bpm; blood pressure-130/90 mmHg. Per abdomen-soft, non-tender, no distension, no organomegaly, no free fluid bowel sounds present respiratory system-bilateral air entry present, no added sounds. Cardiovascular system -S1 S2 present, CNS-conscious and oriented, sensory and motor normal.

Investigation

CECT (A+P) s/o-stomach-appears distended. There is irregular wall thickening noted along the lesser curvature circumferential thickening noted in the pyloric region with fat stranding and lymph nodes present around it. There is serpiginous hyper density noted within the lumen of the stomach.

Figure 1: Stomach-appears distended.

On post contrast: There is a mild enhancement of stomach wall thickening.

Patient posted for diagnostic upper GI endoscopy imp-foreign body noted in stomach extending from pylorus, to duodenum. Several attempts made to remove foreign body endoscopically but unsuccessful, snare wire got stuck inside the foreign body.

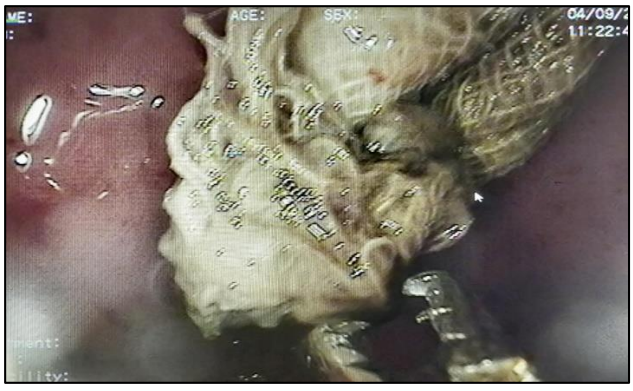

Figure 2: Endoscopic view of foreign body.

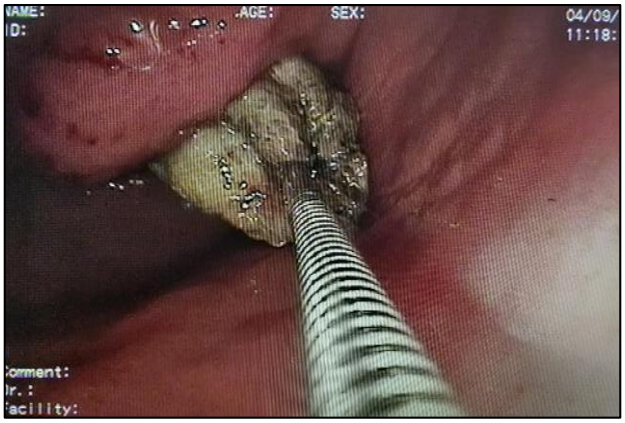

Figure 3: Attempt made to remove it with grasper.

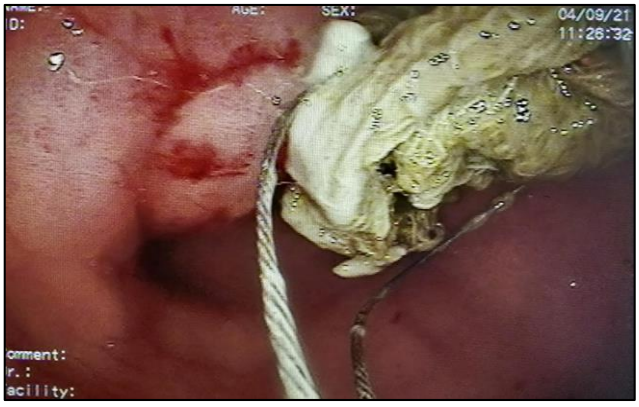

Figure 4: Attempt made using an endoscopic snare.

Treatment

The patient underwent emergency open exploratory laparotomy. Patient abdomen opened in layers with midline incision, no adhesion seen in peritoneal cavity.

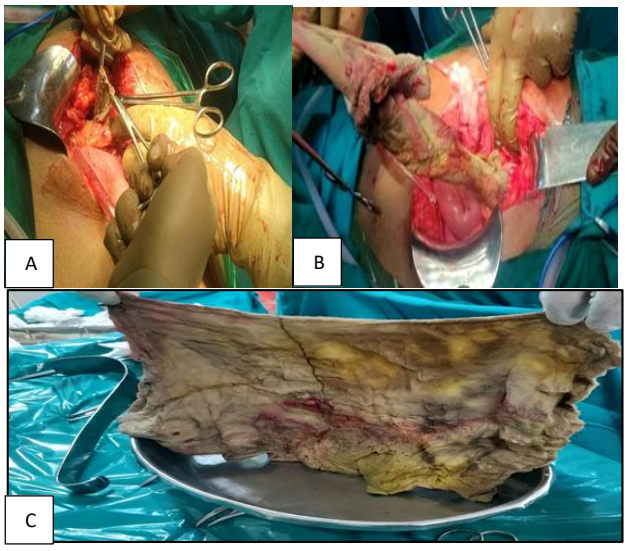

Figure 5 (A-C): The foreign body is dissected out of the stomach, retained laparotomy towel, 30×30 cm in size and post-op events were uneventful.

Patient approached through gastric triangle after gastrostomy, foreign body removed with blunt dissection.

DISCUSSION

Gossypiboma or retained surgical sponge is one of the foremost common retained foreign materials Within the body cavity post-surgical procedures, that cause serious damage. The incidence of retained foreign bodies such as sponges, needles, or any part of the instrument following surgery is 0.01%-0.001%.

A retained intraperitoneal foreign body may present acute or delayed abdominal symptoms, depending on the size, type, location, and nature of the body's response to it. A history of previous surgery may be a crucial clue in the diagnosis of gossypiboma. Recurrent abdominal pain, nausea, vomiting, and abdominal distention in a patient who had a recent abdominal operation ought to raise the suspicion for retained foreign material within the body cavity generally two types of foreign body responses are noted. That is an aseptic fibrotic reaction, resulting in foreign body granulomas that cause adhesions and encapsulation. Other another exudative response that leads to abscess formation with or without secondary bacterial infection.[13]

Fistulisation may occur between the mass and the bowel lumen or other organs such as the urinary bladder, and such transmigration may leave a persisting fistula.[18] A very rare sequelae in that Sponge is eroded into the intestine, possibly partially or fully present the intestine. Depending on its portion of the migration where is eroded, it may or may not pass naturally from the rectum. Intraperitoneal surgical sponge causes an inflammatory response to the omentum and nearby organs. Silva et al reported a case in which retained surgical sponges completely migrated to the ileum with no trace of an open barrier.[14] Pathological processes are likely involved as well in our case. Foreign matter enters the hollow organ (usually the intestine) under pressure, and a folded sponge penetrates the cavity. The peristaltic activity present in the intestine assists in the migration of foreign bodies that induce symptoms, Intestinal obstruction is the most common symptom of a patient presenting because retained surgical sponge generally cannot pass through the ileal-cecal valve. Closure at this point is relatively good, as the contents of the liquid chapter can still be diffused through the abdominal gauze, which serves to decompress the chapter.

Characteristic CT features of abdominal gossypibomas include a spongiform appearance with gas bubbles, low-density mass with a thin enhancing capsule, and calcifications deposited along with the network architecture of a surgical sponge. A sponge left within the pleural space shows no gas lucencies due to the resorption of the air by the pleura. MRI: Signal characteristics vary depending on the content. Commonly reported features include: T1: typically low signal, T2: low signal with whorled stripes in the central portion, T1 C+ (Gd): enhancement, and in some cases a serrated border to the inner wall. Removal will be tried with endoscopic or surgical approaches counting on the site and presence of complications.

Gawande and colleagues evaluated the risk factors for retaining foreign material in the body during the operation. They showed that emergency surgery, unplanned modification in the operation, and high BMI were significantly associated with a higher risk of retained foreign material in the body. Emergency surgery was associated with a 9-fold multiplied risk of retained material in the operation.[15]

A history of previous surgery may be a crucial clue in the diagnosis of gossypiboma. Recurrent abdominal pain, nausea, vomiting, and abdominal distention in a patient who had a recent abdominal operation ought to raise the suspicion of retained foreign material Within the body cavity.[16] Gossypiboma is a preventable condition. These are some ways to avoid gossypiboma in the future. For each patient, Sponge count is one of the foremost widespread strategies wherever surgical checklists are used seriously and routinely.

Traditionally, sponges are counted doubly manually by 2 people at the start and before closing the wound, and also the surgeon carefully considers not to prefer the utilization of small sponges in large cavities and performs an organized wound examination. In recent days, radiologically detectable sponges and towels will be used in the surgical site and intra-operative radiography to count the gauze will be applied. Another technology is a tagged surgical sponge with an electronic article surveillance system, which can be used to trace gauze electronically.[17]

However, these new technologies are not yet widely obtainable in practice. Our given case highlights the necessity for considering gossypiboma in patients presenting with abdominal symptoms after recent abdominal surgery. Though rare, retained foreign bodies ought to be considered in the differential diagnosis of surgical abdominal pain.

CONCLUSION

Though rare, retained foreign body ought to be thought about in the differential diagnosis of surgical abdominal pain in post-operative cases. The condition carries harm potential to the patient and medico-legal litigations.

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