

## Gastric Outlet obstruction due to retained surgical swab(gossypiboma) after open cholecystectomy: a case report

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### Key words

Gossypiboma, intraluminal, mop

### Abstract

A surgical compress retained in the abdominal cavity following surgery is a serious problem. Here, we describe a 48-year-old woman that had epigastric fullness, pain, nausea, and vomiting after eating. She had an open cholecystectomy at another medical center 2 months previously. The physical examination revealed nothing. OGD showed a foreign body material that completely obstructing the pylorus. Therefore, a laparotomy was performed. A surgical compress was removed at enterotomy and the final diagnosis was gossypiboma. Here, we present a case of transgastric gossypiboma after a splenectomy 4 years previously

### Introduction:

Surgical mop retained in the abdominal cavity following surgery is a serious but avoidable complication. Synonyms are textiloma and cottonoid<sup>[1]</sup>. Fortunately, cases where instruments or sponges are left behind following a surgical procedure are uncommon, although they are potentially dangerous medical errors<sup>[2, 3]</sup>. The literature estimates that a foreign body is retained after intra-abdominal surgery in 1:1,000 to 1:1,500 cases<sup>[2,3]</sup>. Here, we present a case of transgastric gossypiboma after a splenectomy 4 years previously. The condition may manifest either as an exudative inflammatory reaction with formation of abscess, or aseptically with a fibrotic reaction developing into a mass. Intraluminal migration is relatively rare<sup>[4]</sup>. Here, we

present a case of transgastric gossypiboma causing gastric outlet after an open cholecystectomy 2 months previously

Case report:

A 48-year-old woman had epigastric fullness, pain, nausea, and vomiting after eating. She had open cholecystectomy for symptomatic gallstones 2 months prior to presentation. She realized a short smooth postoperative course after which she began having intermittent symptoms of gastrointestinal reflux and regurgitation, especially when supine. She had to stop eating solid food because it exacerbated her symptoms and also caused abdominal pain, epigastric fullness, and vomiting. Vomiting was worse 1 hour after meal and the vomitus contained undigested food. For the past week she has been unable to tolerate any intake except sports drinks. Her bowel movements are normal. She has no fever, chills, or night sweats. Her medical history is positive for migraine headache. There is no alcohol, tobacco, or substance abuse, and no significant family history of disease. Results of physical examination were unremarkable; vital signs were normal. There was no lymph node enlargement. There was no mass or succussion splash in her abdomen. Routine laboratory studies revealed normal values of CBC, RFT, electrolytes and LFT. OGD showed a foreign body material that

completely obstructing the pylorus. And the diagnosis of gastric outlet Obstruction made (Fig1&2)



Fig 1: Endoscopy picture showing the gauze impacted in the pylorus.



Fig 2: Endoscopy picture showing the gauze impacted in the pylorus

Laparotomy was done & revealed the presence of missed abdominal gauze of 30x20 cm in the gall bladder fossa which lead to a local inflammation that ended the duodenum with duodenal fistula & migration of a part of the gauze into the pylorus channel with complete obstruction. Apart of that the formal Laparotomy showed nothing abnormal.

Extraction of the abdominal gauze together with duodenal reconstruction & gastro-jejunostomy were performed then she passed through a smooth post operative course (Fig 3).

Fig 3 : Postoperative photo showing the gauze after removal from the stomach.



### Discussion

The term "gossypiboma" denotes a mass of cotton or gauze that is retained in the body following surgery. Gossypiboma is a medico-legal problem especially for surgeons<sup>[5]</sup>. Retained surgical sponges can cause serious consequences, such as bowel or visceral perforation, obstruction or fistula formation, sepsis, or even death<sup>[2,6]</sup>. Intra-abdominal gossypibomas can migrate into the ileum, stomach, colon, or bladder without any apparent opening in the wall of these luminal organs<sup>[7]</sup>. Sixty-four cases have been reported of transmural migration, mainly after intra-abdominal surgery. The most frequent site of impaction is the intestine (75%), but they also found 2 cases that describe migration into the stomach and 7 into the bladder. Five more cases

have been published describing Transdiaphragmic migration. Only 4 cases describe a sponge spontaneously expelled through the rectum, whereas more than 93% needed re-intervention<sup>[8]</sup>. Transmurally migrated swab can presents in different ways; small bowel obstruction reported by Gencosmanoglu R<sup>[5]</sup> in Turkey because of retained swab following open cholecystectomy and umbilical hernia repair 3 years ago. In this case, a surgical compress was observed in an ulcerative lesion where it had passed through the stomach wall. It took the compress about 2 months to pass from the stomach wall to cause obstruction in the pylorus.

This case lookssimilar to a case reported by Akbulut S, et al in which a transgastric surgical swab was reported in a case after splenectomy and retrieved from the stomach by laparotomy<sup>[9]</sup>.

Gossypiboma is difficult to diagnose, but plain X-rays, ultrasonography (US), computed tomography (CT), and magnetic resonance imaging (MRI) can help to make the diagnosis<sup>[10]</sup>. In this case USS was not informative, and OGD solved the dilemma.

Tumerve et al.<sup>[11]</sup> examined 10 cases: eight involved sponges and two involved clamps. In their series, the patients first became symptomatic between 15 days and 20 months postoperatively. Five of their patients had previous Caesarean sections or hysterectomies. Yildirim et al.<sup>[12]</sup> investigated 14 patients who were between 25 and 79 years of age. In their group, the initial complaints began between 5 days and 40 years postoperatively (the last case was an open cholecystectomy). Most of the patients were admitted to hospital with abdominal pain or intestinal obstruction.

Conclusion:

Prevention of gossypiboma is far better than cure. Strict adherence to swab counts, and the avoidance of change of staff during procedures is important in decreasing the incidence. Compresses should only be used intraperitoneally, one at a time, mounted on forceps.Perhaps, with the increasing use of minimally invasive procedures, the incidence of gossypiboma will fall dramatically.

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