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Case Report

A case of retained surgical mop in abdomen with partial intragastric migration: a case report

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ABSTRACT

Though not uncommon, to retain a foreign body in the abdomen is a preventable error that makes the life of a patient miserable. One of the commonest retained foreign bodies is surgical mop or sponge. Retained mop may cause either an early septic reaction or a late fibrotic reaction. They often cause sinus or fistula and even can transmigrate in to the lumen of viscera. In case of upper abdominal retained mops, they usually erode the thin duodenal wall and rarely stomach. In this case, a mop was retained in the deep subhepatic space 2.5 months ago following open cholecystectomy. It caused an aseptic fibrotic reaction resulting in encapsulation of the mop. It then eroded the antral part of stomach through the lesser curvature and caused luminal obstruction. The patient presented with vomiting after each meal. Upper gastrointestinal tract (GIT) endoscopy revealed a woven fabric object that was impacted and occluded the lumen. The retained mop was removed after laparotomy and the antral wall was repaired well. This case is noteworthy due to its less symptom and penetration into the stomach.

Keywords: Gossypiboma, Retained surgical mop, Textiloma

INTRODUCTION

The most terrified fact to a surgeon is a case of retained surgical mop. It causes pain to both surgeon and patients but is a hazard to the patients. It is not an uncommon event.[1] One study from Mayo Clinic reported an overall incidence of actual retained foreign objects during surgery was 1 per 5500 surgeries.[2] It usually happens in obese patients, in emergency situations, unplanned change in the type of surgery, working in a below standard operating environment and also due to negligence of operating surgeon and operation theatre (OT) staffs.[3] Retained foreign bodies may vary from metallic surgical instruments to surgical gauze or mop.[4] Among these, surgical mop is a common retained foreign body in abdominal surgery specially gynecological or obstetrical surgery.[4,5] Retained mop may cause either an early exudative reaction with enormous sepsis or a late fibrous reaction without infection.[6] The later type of reaction may remain asymptomatic for a long time and causes dense fibrous adhesions between viscera and encapsulation of the foreign body.[7] The septic type presents early and often causes acute abscess formation.[8] In septic cases patient usually presents with fever, abdominal pain, vomiting, intestinal obstruction, abdominal mass, surgical site infection or sinus/fistula formation.[9,15] In rare cases, retained foreign bodies may migrate into the lumen of hollow viscera.[3,7,10] In aseptic case, though it may remain asymptomatic for a long time, may presents with abdominal mass, pain, intestinal obstruction or fistula formation. Retained foreign bodies are usually diagnosed by imaging.[11] The ultimate treatment is removal of the retained foreign body, usually surgically and occasionally laparoscopically or endoscopically.[12,13] This case report describes a rare case of retained surgical mop that migrated partially into the stomach and removed surgically.

CASE REPORT

A 40 years old diabetic female patient with average built presented with history of vomiting after taking food for last

2 months. The vomitus was not bile stained. She had mild dull pain in the epigastric region without any special feature. She had no complain regarding fever, abdominal mass or distension, diarrhea or jaundice. She had normal appetite. She had undergone an open cholecystectomy for acute calculus cholecystitis 2.5 months back in a private hospital. There was no history or documentation of intraoperative or postoperative complication. On general examination, she was alright except mild dehydration. Abdominal examination showed a healed right subcostal scar of previous surgery. On palpation, there was no tenderness or lump. Routine blood tests showed normal findings. Ultrasonography failed to detect any intra-abdominal pathology.

Figure 1: Endoscopic view of penetrated retained mop into the lumen of stomach.

Figure 2: Removal of retained mop at exploratory laparotomy.

Figure 3: After removal of the retained mop, the defect in antral part of stomach exposing the naso-gastric tube.

Figure 4: Repair of the defect at the antral part of stomach.

An upper GIT endoscopy was done. Endoscopy showed a foreign body in the distal part of stomach. The foreign body had the appearance of woven fiber that suggest a retained surgical mop. The scope could not be passed beyond the foreign body as it occupied the whole lumen. An attempt was made to move the mop with forceps but failed as it was impacted. A CT scan was not done. In this situation, the patient underwent exploratory laparotomy with written consent. At laparotomy a dense fibrous adhesion was found between transverse colon, antral part of stomach and under surface of liver. After releasing the adhesion, an encapsulated surgical mop was found with partial penetration into the stomach. On removing the mop, a defect of about 4 inches by 5 inches was found in the antral part of stomach along the lesser curvature exposing the naso-gastric tube in situ. There was no significant septic focus in the abdomen. The defect was repaired with 2/0 atraumatic vicryl and catgut in two layers. The immediate post-operative period was uneventful. But unfortunately, the patient succumbed on 3rd postoperative day suddenly without any evident cause.

DISCUSSION

Inadvertently retained surgical sponge or mop is an avoidable error in spite of strict precaution. It is also called ‘gossypiboma’ or textiloma’. These types of events are always under reported. Retained surgical mop usually causes septic reaction and less frequently fibrotic reaction.[6] Retained mop may erodes the nearby viscera. The commonest organ involved are small and large intestines in case of lower abdomen and duodenum in upper abdomen. Less frequently urinary bladder and stomach. Retained mop may transmigrate into the lumen of a gut.

In this case report, patient had no abdominal sign or symptom except mild dull pain in epigastric region and vomiting. It may be due to well encapsulation of the mop in the subhepatic space without any sepsis. Ultrasonography failed to detect such a well localized foreign body in deep subhepatic space. It may be due to lack of high degree of suspicion. Upper abdominal mop commonly erodes into the duodenum, as the wall is relatively thin in comparison to stomach.[7] The mop in this

case eroded the antral part of stomach through the lesser curvature and partially entered into the antral lumen. This was a rare happening.[11] Patient had vomiting due to antral obstruction by the transmigrating mop. Such intraluminal mop can be removed either by endoscopy or by surgery. In this case, endoscopic removal of the mop was failed because, the mop was tightly impacted and cannot be moved even after traction with forceps. So, it was safer to do exploratory laparotomy. At laparotomy, we found no intra-abdominal sepsis or adhesion between loops of intestine except an encapsulated mass deep in the subhepatic space. That is why patient had no intestinal obstruction or palpable mass. The defect in the stomach after removing the mop was repaired well with adequate luminal space. Though in the first two post-operative days patient was doing well, patient unexpectedly expired on third post-operative day suddenly and the cause was not determined.

CONCLUSION

Retained surgical foreign body is a preventable iatrogenic error in surgery. Only special care and sincerity are needed to avid this catastrophic situation. This type of event is always under reported. So, all available measures must be practiced in operating room. A high degree of suspicion is always needed for early detection of retained foreign body. So, all preventable measures must be taken to prevent serious professional and medicolegal consequences to practitioners and the involved health services.

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