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Duodenal Gossy Piboma-An Unusual Presentation

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ABSTRACT

Gossypiboma refers to a lump formed by a cotton sponge which is left accidentally in the patient's body during a surgical procedure. Migration of gossypiboma can occur in the digestive tract, diaphragm,urinary bladder and near the vagina.It is most commonly removed through surgical excision. The symptoms include vomiting, pain, dyspepsia, weight loss, swelling and obstruction. The author presents a case of duodenal ulcer caused by the migration of gossypiboma. **Case Outline:** We present a case of a 28 years old female patient who complained about pain in the epigastric area with vomiting, dyspepsia and weight loss. The patient had underwent an open cholecystectomy few months back and had developed complaints right after that. An intraluminal migration of gossypiboma was found near the duodenum. Surgical intervention successfully removed the gauze, More over a laparotomy and a deudonal repair was performed. **Conclusion:** In conclusion, it should be considered that a Gossy piboma can be expected in a patient complaining about post-operative pain. Gossypiboma in the duodenum is a rare phenomenon. It is best diagnosed through radiography, endoscopy. MRI and CT scan. A gossypiboma disintegrating the duodenum and causing pyloric stenosis was reported in this case. According to the literature, the chief symptom for an emergency surgical procedure includes "obstruction". Since there was a pyloric stenosis in this case, so it required an emergent removal. In all cases presenting with an incidental mass, Gossypiboma be kept in the differential diagnosis. Awareness regarding this condition must be carried out to help diagnose such a rare condition. While performing a surgical procedure one should make sure that no sponge or any other medical instrument be left inside the patients body that can lead to serious medico legal repercussions.

INTRODUCTION

Gossy piboma is a term which refers to a mass formed around a cotton gauze that is left in the body during a surgical procedure. Gossypiboma term was first described by Wilson in 1884 for unintentionally leaving a surgical gauze or sponge in the body cavity after performing a surgical intervention (2). The term Gossypiboma is obtained from a Latin word "Gossypium" which means cotton and Swahili word "boma" that means place of secrecy (3).

Post-operative pain can be a symptom to expect a Gossypiboma. Gossypiboma in the duodenum is a rare phenomenon. It is best diagnosed through radiography, endoscopy. MRI, CT scan and ultrasounds. The chief symptom for an emergency surgical procedure includes obstruction. Since there was a pyloric stenosis in this case, so it required an emergent removal of the gauze. A successful Laparoscopy was performed on the patient along with a duodenal repair.

Patients actively complain about pain in the area where a sponge may have been retained. Other symptoms include loss of weight, swelling, nausea and vomiting. According to a case report by Quraishi in 2012, it indicates inflammation around the painful area citing an urgent removal of the product left out in the body cavity (5). Kansakar et al in 2008 presented a case about a female who complained about dull aching right upper abdominal pain with intermittent episodes of diarrhea following cholecystectomy which she underwent fourteen years back. Ultrasound and computed tomography findings were suggestive of foreign body in right sub hepatic space (8).These findings are in parallel to the case in our study. An Endoscopic removal could be suggested in patients with gossypiboma transmurally migrated into duodenum, if there was no emergent conditions such as active GI bleeding, obstruction, or free perforation (6). Since there

was a pyloric stenosis in this case, so it required an emergent removal of the gauze. A successful Laparoscopy was performed on the patient along with a duodenal repair. Performing an open surgery is the best option indicated in these cases (9).

Gossy piboma can be dangerous for the patient as well as the surgeon. Such type of cases are reported to be rare. The main reasons that these cases are rarely reported are due to medico-legal concerns (7). It can lead to several implications for the surgeon (1). Such cases can lead to shame, discomfiture, job loss, and law suit worldwide (4). While performing a surgical procedure, one should make sure that no sponge or any other medical instrument be left inside the patient's body that can lead to serious medico legal repercussions (10).

Case Presentation

A 28-year-old female was referred in November 2022 with the chief complaint of pain in the epigastric area along with vomiting, weight loss and dyspepsia. The past medical history of the patient revealed an open cholecystectomy performed a few months back. Her vital signs were normal. The pain was causing hindrance in her daily activities. According to the past medical history of the patient,she did not had any complain about vomiting, pain or weight loss.She had undergone open cholecystectomy a few months back. It was evident that a surgical product was retained in the body which was leading to an obstruction near the pyloric region. A white colour mass was noted in duodenal part one after upper gastrointestinal (UGI) endoscopy was performed. An abdominal X-ray examination showed the retained material was a surgical sponge. Abdominal computed tomography (CT) scan showed intraluminal migration of the gauze into the duodenum. Endoscopic intervention failed to remove the gauze, and intractable duodenal ulcer caused by the gauze persisted. Decision was taken to undergo laparotomy and discussed with patient.

Midline incision was given for surgery and during the operation, a gossypiboma, about 2 cm in size, was noted between the supra-duodenal region, with penetration into the anterior wall of the duodenum, resulting in a penetrated duodenal ulcer about 1.5 cm in diameter. The gauze was removed successfully, and the penetrated ulcer was restored with a primary duodenal repair. A drain was placed in pelvis of size 24. The closure of the wall was done in reverse manner and skin was left open for secondary intention healing because of the infected foci i.e Gossypiboma that was ultimate cause of her complaints. Patient was shifted to ward for post-surgery care including I.V antibiotics and fluids along with analgesia and after 24 hours, patient was allowed orally and was tolerating oral feed. After 2 days of patient's stay at ward, drain was removed and was encourage for oral feed. After 4 days of her stay in ward patient was discharge to home on oral medications and was asked for follow up after 2 weeks . After 2 weeks patient was totally fine and all her symptoms relived and wound was having granulation tissue showing signs of healing. Patient was counselled for wound care.

Figure 1

Endoscopic View Orange Arrows Showing Gossypiboma in Deudonum .

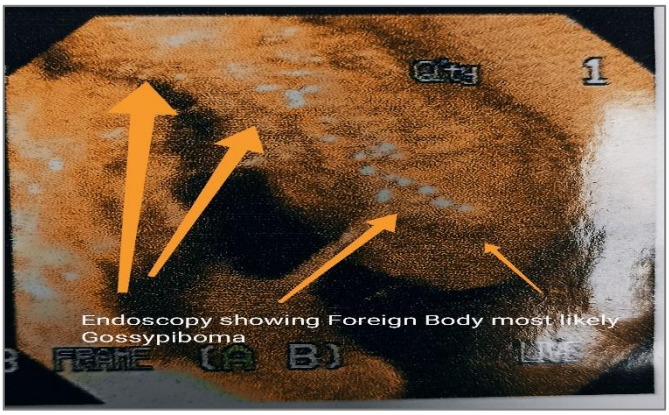
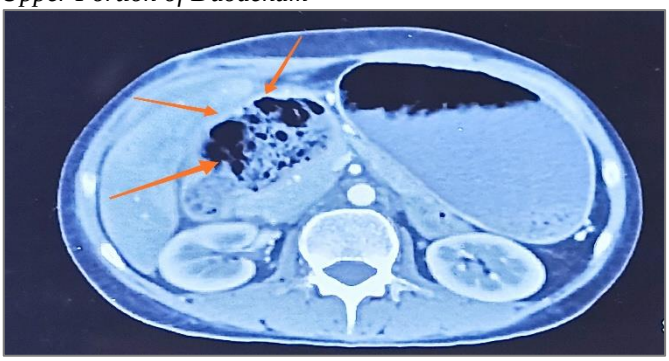


Figure 2

CT-SCAN Image Orange Arrows Showing Gossypiboma in Upper Portion of Duodenum



DISCUSSION

Gossypiboma refers to a lump formed by a cotton sponge which is left accidentally in the patient's body during a surgical procedure. Migration of gossypiboma can occur in the digestive tract, diaphragm, urinary bladder and near the vagina. It is most commonly removed through surgical excision. The symptoms include vomiting, pain, dyspepsia, weight loss, swelling and obstruction. A gossypiboma disintegrating the duodenum and causing pyloric stenosis was reported in this case.

It is assumed that gossypiboma is under reported because of the medico legal implications, in addition to its asymptomatic nature at times. The true incident rates have yet not be reported (11).Such cases can lead to shame, discomfiture, job loss, and law suit worldwide.

Many cases remain undiagnosed as they may be asymptomatic. Several cases have been discovered during other surgical interventions leading to the diagnosis of a foreign object inside the patient's body (12). It can also mimic the presence of a neoplasm in the body (13). In the symptomatic cases it can represent with

pain and swelling near the area in which a gauze or sponge may had been retained (14).

Many cases have been reported with a transmural migration of the gauze in the nearby areas including the stomach and duodenum (15). Cases with the migration of the retained gauze includes caesarian section mostly (16).

It is advised to use radiopaque sponges and to recount sponges that have been used during a surgical procedure (17). It is best diagnosed through radiography, endoscopy. MRI, CT scan and ultrasounds, However a CT scan can help diagnose it better (18). The incidence of such cases is still evident. It needs attention to reduce such incidences leading to the humiliation of the surgeon as well as increasing health concerns for the patients (19). Fortunately due to the advancements made in the medical field, several other methods have been developed which helps to remove human errors made during surgical procedures (20).

CONCLUSION

In conclusion, Gossypiboma, despite its rare occurrence in the duodenum, should be taken into account as a potential differential diagnosis for post operative pain followed by an incidental mass revealed on imaging. Pyloric stenosis requires urgent surgical intervention and removal, which was caused by ingression of gossypiboma in the duodenum, in this case. Awareness regarding such post-operative complications can play a significant role in identifying rare conditions like Gossypiboma which can be best diagnosed through radiography, endoscopy, Magnetic Resonance Imaging (MRI) and Computed Tomography (CT) scan. Moreover, surgeons and involved medical team should vigilantly ensure and check that any medical instrument or sponge is not retained in the patient's body after a surgical procedure as it can lead to serious medicolegal repercussions.

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