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Gossypiboma Presenting as Persistent Post Operative Sinus

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Abstract

Retained foreign bodies can lead to various complications as sepsis, intra abdominal abscess, fistula or sinus formations, intestinal obstruction, chronic abdominal pain etc. Detection of these cases became possible with advancement in the imaging techniques available. Mostly presentation is in the form of intraperitoneal effects and persistent postoperative sinus is an extremely rare manifestation of Gossypiboma. We suspected foreign body inside abdominal wall leading to persistent sinus. Sinogram and sonogram suggestive of foreign body which was confirmed on exploration.

Key Words Gossypiboma, sinus, roller gauze, sonogram, foreign body.

Introduction

Retention of foreign body (intra-abdomen) in post operative period used to be a very frequent problem in the past. The various foreign bodies described are sponges, gauze pieces, often small metallic surgical instruments, non absorbable suture materials, needles etc. First case of gossypiboma was reported by Wilson in 1884 [1].

Retained foreign bodies can lead to various complications as sepsis, intra abdominal abscess, fistula or sinus formations, intestinal obstruction, chronic abdominal pain etc. Detection of these cases became possible with advancement in the imaging techniques available presently and is also necessary to be detected keeping the medicolegal aspect of such situations in mind [2, 3]. If detected in the early period, catastrophic complications can be avoided [4]. With rising awareness and surgery being done meticulously by the surgeons now a days, such incidences have reduced to a greater extent [5]. But still many of such cases can go undetected because of lack of availability of imaging techniques or lack of judgment of the surgeon in making a diagnosis.

Presentation of gossypiboma is usually with intraeritoneal complications as foreign body in peritoneal cavity leads to abscess formation, fistula, and obstruction. It is extremely rare presentation for gossypiboma as external sinus over abdominal wall. We report hereby a patient, which shows negligence done by some operative surgeon while doing surgery and packing 6 inch roller bandage in abdominal cavity for achieving hemostasis and closing abdomen leaving foreign body in situ. Many articles, studies and case reports are present referring to retention of intra abdominal foreign body, but

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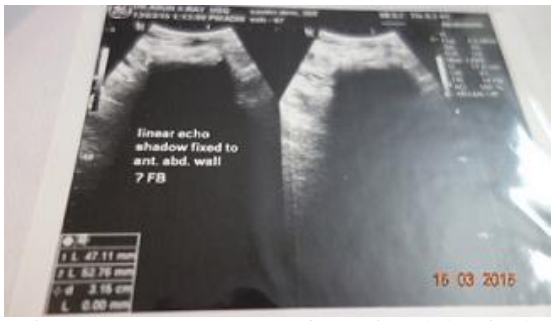

Figure 1. Ultrasonogram of anterior abdominal wall revealing echogenic linear shadow fixed to anterior abdominal wall

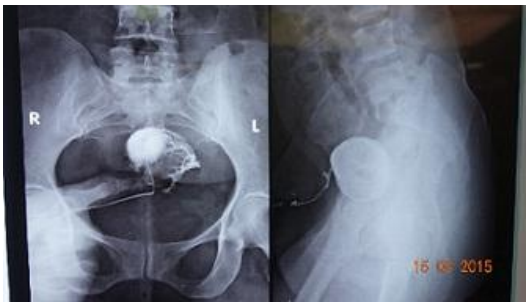

Figure 2. Sinogram revealing subcutaneous sinus cavity

cases presenting as persistent post operative sinus are extremely rare so far our knowledge and belief is concerned. . Here is one such report.

Case Presentation

A 38 year female presented with seropurulent discharge from her previous surgical wound over lower part of abdomen for 8 months. Discharge foul smelled around 30-50 ml per day, not associated with any bleeding or fecal discharge. There was no history of any fever or abdominal pain. On enquiring about her past history she revealed that she had undergone total abdominal hysterectomy 1 year back for massive per vaginal bleeding. Patient was asymptomatic in the initial post operative period but a month after discharge from hospital she developed wound site infection, for which she had undergone regular dressing at the infected site by some local practitioner. Since then patient was experiencing seropurulent discharge from the wound site. Patient had taken antibiotics for a long time for the above mentioned problem.

On local examination of the discharge site, abdomen was fatty, a well healed transverse scar of previous surgery present in the lower abdomen underneath the abdominal fold except a small opening present in the midline discharging seropurulent fluid. Surrounding skin was macerated. There was no surrounding erythema. On palpation, there was no local rise of temperature, abdomen was soft nontender. On expression there was discharge of pus from the same opening. Margin of the opening was indurated.

Patient was started on oral antibiotics, pus culture sensitivity was sent and USG abdomen was advised. Sonogram revealed echogenic linear shadow seen fixed to anterior abdominal wall of hypogastric region suggestive of foreign body (Figure 1).

Later sinogram was advised to the patient keeping in mind high possibility of retained foreign body in the anterior abdominal wall. Sinogram revealed subcutaneous sinus cavity (Figure 2). Patient was planned for exploration of the sinus cavity under local anesthesia.

Around 30 ml of 1% lignocaine with adrenalin was infiltrated around the sinus cavity and 3-4 drops of methylene blue + 5 ml of hydrogen peroxide were injected into the sinus tract to delineate the sinus tract. As dissection went deeper a segment of gauze was visualized (Figure 3) which was extending below skin and extending upto peritoneum with invasion of rectus sheath and underlying muscles. It was pulled up slowly and finally revealed to be a 6" roller gauze (Figure 4) which is normally being used for packing of infected or hemorrhagic cavities. Cavity was cleaned thoroughly using 10% Povidone-Iodine and wound was kept open in the post operative period. Patient was

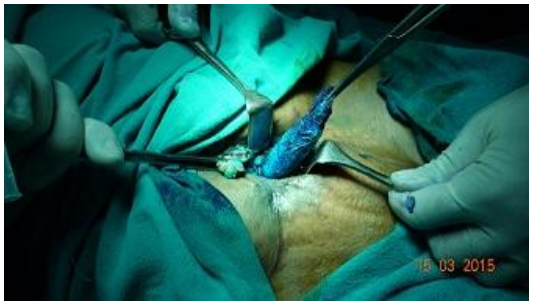

Figure 3. Segment of roller gauze visible during exploration

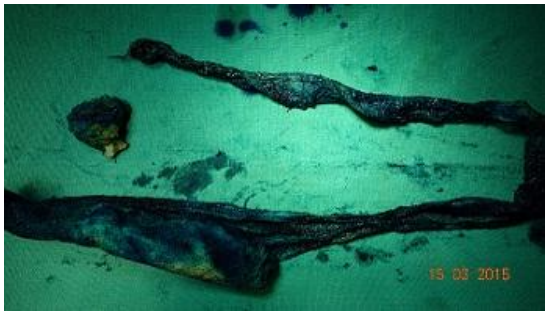

Figure 4. Roller gauze extracted from sinus cavity.

reviewed on POD 2 and repeated dressings were done every alternate day. Wound healed completely in 25 days. Patient has been on follow up for more than 3 months without any complaint.

Discussion

The term Gossypiboma is being derived from two words. The latin word 'Gossypium' means cotton and Swahili word 'boma' means area of concealment [6]. Many cases have been reported of post operative retention of intra-abdominal foreign body presenting with intraperitoneal complications but retention of foreign body presenting as abdominal wall sinus remaining undetected for a long time is rare. Such cases occur more often but most of such cases go unreported because of its medicolegal aspect and mostly because the reputation of the surgeon being at stake [5]. Mostly such foreign bodies go undetected for a longer time because of formation of an inert layer around the foreign body, but will be making their presence felt now and then in form of discharge per incision site, fever abdominal cramps, obstructive symptoms, perforation, fistula formation or even death [5, 6]. The most common foreign body to be forgotten inside a human body is a piece of sponge or a small piece of gauze because of their ability to get soaked in blood and tissue fluid and resembling just like tissue. External sinus in gossypiboma may be due to two reasons either operating surgeon forgot to take out packing of roller gauze for hemostais placed extraperitineally or roller gauge was placed over closed vaginal vault for hemostasis and closure of abdomen done with roller gauze *in situ* by mistake. So it's very important to keep track of such things and counseling of patients is very essential to avoid such situations. To make a diagnosis of gossypiboma and to detect such cases as early as possible ideally, sponges should have a radiopaque line along one of its border which can be delineated very clearly in X- Ray in post operative period.

Retained intra-abdominal foreign body post operatively is a gross negligence with the part of a doctor which carries serious medico legal consequences. Though such incidences have come down, but foreign bodies can be retained at the wound sites even after a surgical dressing. Mostly such cases arises whenever the surgeon is not cross checking just before closure of abdomen and only dependent on assisting staff nurse for proper count or negligence of assisting staff nurse. For that the surgeon has to keep high degree of suspicion for such possibilities whenever such a patient is encountered.

Authors' Contribution

SKT collected the data drafted the manuscript.

MB designed the study and drafted the manuscript.

PK critically reviewed and finally drafted the manuscript.

AKK critically reviewed and finally drafted the manuscript.

Conflict of Interest

The authors declare that there is no conflict of interests

Ethical Consideration

The written informed consent for publication of this case report was taken from the patient. Copy of the consent is available with authors.

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