

Gossypiboma or Textiloma: A Report of 2 Cases and Strategies for Prevention

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Abstract 2 cases of Gossypiboma also called Textiloma or Gauzeoma are presented with the attendant management challenges. One of them presented with an intra peritoneal abscess and a fistula necessitating a 2 staged bowel resection and colostomy then closure while the other simulated a complete intra luminal colonic tumor with sub acute intestinal obstruction. Despite the serious medico-legal and psychological issues involved the patients were duly informed. The doctors that did the previous surgeries were also informed. The surgical team is advised to be meticulous with swab counts in order to avoid its occurrence and when it does a high index of suspicion is required for early diagnosis and management. The policy of prevention coupled with use of several adjunct technologies which accounts for sponge use will help to reduce the incidence of gossypibomas. These strategies to avoid its occurrence are also discussed.

Keywords: gossypiboma, colonic tumor, laparoscopy, medico-legal, textiloma, Abuja

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1. Introduction

Retained surgical sponge has variously been referred to as "gossypiboma" because of the feared tendency to cause gossip about surgeons [1,2] or "textiloma" because it is made of textile material [3] or "gauzeoma" because it is a foreign body granuloma induced by sponge material [4]. It is rarely reported because of its medico-legal implications. This condition thus poses great management as well as ethical challenges to the surgeon especially when necessary tools are not available or affordable for its early detection. We present 2 cases with varied methods of presentation including one that simulated an intra luminal colonic tumor in order to increase awareness. The strategies to minimize its occurrence are also discussed.

2. Case Report

2.1. Case 1

J O, a 40 year old Para 5 lady presented with a 6 month history of pain and swelling in the Left Iliac Fossa (LIF) with intermittent fever and moderate weight loss. There was no vomiting or change in bowel habit. The symptoms started immediately she had an emergency Cesarean operation and myomectomy simultaneously in a private hospital during which 3 pints of blood were transfused.

Examination showed a chronically ill looking lady with an irregular and tender mass in the LIF. The rectal examination was normal. An abdomino- pelvic ultra sound scan and a video recorded laparoscopy done revealed an irregular and partly cystic mass walled off by bowel loops/omentum, suggestive of an abscess. She had an exploratory laparotomy and findings were (a) a stench from an intra peritoneal abscess (b) large abdominal gauze pack that eroded into the sigmoid colon and ileum.

She had evacuation of the abscess, resection and end to end anastomosis of the ileum as well as a sigmoid loop colostomy. A multi fenestrated tube drain exteriorized through a separate stab wound was left in place. The histopathology report confirmed a gauze pack measuring 14cm x 9cm x 1cm and weighed 100g. The resected small bowel showed 3 perforations with chronic inflammatory reactions.

She was transfused with 2 units of blood post operatively but had abdominal wound breakdown which was treated with daily honey and metronidazole infusion dressing. She also developed depression for which she responded well to an anti depressant for 2 weeks.

She had re exploration and closure of sigmoid colostomy at 8 weeks after bowel preparation. The findings were a frozen pelvis with pockets of pus in the abdomen. She developed a fecal fistula on the 4th day post re exploration. This closed within 10 days of conservative management.

She was well and discharged home on the 72nd day of admission.

2.2. Case 2

K O a 45 year old Para 4 lady presented with a 12 month history of colicky abdominal pain and swelling in the left iliac fossa associated with severe weight loss, occasional vomiting and borborygmi. There was a reduction in her bowel motion and stool quantity but no absolute constipation.

She had an abdominal hysterectomy in another district hospital 12 months before presentation during which she spent one month on admission because of post operative fever and persistent abdominal pains.

On examination, she was wasted and not pale. The abdomen was full with a palpable, mobile, non tender mass in the LIF. The rectal examination was normal.

A full blood count, urinalysis, ESR, E&U and CXR were normal. An ultra sound scan of the abdomen and pelvis showed features of a colonic tumor with a partial small bowel obstruction. A barium enema study showed an extravasation of barium into the peritoneal cavity and the procedure was terminated.

She had bowel preparation and autologous blood donation pre operatively. At exploratory laparotomy we found (a) a clean abdomen (b) a huge intestinal mass containing jejunum, ileum and sigmoid colon (c) enlarged mesenteric lymph nodes. The mass was resected along with the adjoining bowel loops and a jejuno-ileal anastomosis established while the sigmoid colon was closed primarily in layers. The lymph nodes were also excised and sent for histology.

The excised mass was bisected and there was a rolled abdominal gauze pack in the lumen of the small bowel. The histology report showed small bowel and excised lymph nodes with chronic inflammation. It confirmed a gauze pack soaked in greenish and offensive faecal matter, weighing 500g and measured 16cm x 8cm x 3cm.

The wound stitches were removed on the 8th post operative day and she was discharged home in a satisfactory condition. The follow up visits have remained uneventful.

3. Discussion

A retained foreign body made of woven textile is referred to as a gossypiboma, textiloma or gauzeoma. A foreign body unintentionally left in a patient during surgery can be the source of wound infection or disruption. The longer the object remains in the body the more it incorporates or erodes into tissues as typified by the second case presented where the entire gauze pack was found in the lumen of the bowel mass. An abscess and adhesions can form as in the first case reported or an internal fistula between intestinal loops may result as in the second case. The foreign body reaction may be immediate or delayed for up to 30 years [5] or 40 years [6,7]. The Retained Sponge (RS) has been reported to have migrated through the bowel wall subsequently passed per rectum. Other complications after surgery include psychological depression as in the first case presented.

Gossypiboma like other foreign bodies unintentionally left in the body is uncommon but has a very serious medico legal implication. In order to avoid the possibility

of a law suit patients have been denied the knowledge of findings following removal of foreign bodies. In the cases presented both patients were informed about the findings and the doctors that performed the previous operations were duly informed. This will allow all the parties involved to resolve the problems amicably. This is good medical practice as the doctor is held accountable and responsible for the care of his patient [8,9].

The diagnosis of gossypiboma, textiloma or gauzeoma is a surgeon's dilemma even where sophisticated facilities are available. It has been known to simulate an ovarian [10], a pancreatic [11] or colonic tumor with sub acute obstruction as in this case and the management options widely vary. When in the wound or peritoneal cavity, simple removal suffices. But where it has migrated into the large intestines, the surgical procedure performed depends on whether the bowel was prepared as in an elective case (second patient) or not prepared as in an emergency (first patient). Where the gauze involves an unprepared colon, the patient should have a staged procedure of resection and colostomy and later closure after 8 weeks when the stoma has matured [12,13].

4. Strategies For Prevention

1. COUNTS

Apart from some of the complications highlighted above, counts of sponges and instruments are performed for patients and personnel safety, infection control and inventory purposes [3].

- First count

The person who assembles the instruments and sponges for sterilization counts and wraps them in multiples of 5 or 10 then keeps a copy of the inventory.

- Second count

The scrub nurse and the circulator together count aloud all items before the surgical procedure begins and these are recorded on a board or preprinted forms.

- Third count

This is started as soon as the surgeon announces the start of closure for the body cavity.

a. Field count- the surgeon or the assistant and the scrub nurse count all the instruments and sponges in the surgical field.

b. Table count- the circulator and the scrub nurse count all the instruments and the sponges on the instrument table.

c. Floor count- circulator counts all the items on the floor including those in the kick buckets and verified by the scrub nurse.

- Fourth and final count

This is taken during skin closure and the surgeon told clearly that the instruments and swabs are correct.

2. Attach a forceps to any pack before using it in the cavity

3. Use swab on stick rather than free swabs once in the body cavity

4. Use swabs and gauze packs with a radio opaque thread (raytex) for easy detection by plain radiography post operatively in case of retention.

5. Avoid the use of untrained nursing personnel and unnecessary hurry during surgery.

In conclusion, the surgeon must have a high index of suspicion in a patient with persistent pain, intermittent fever or mass after an abdominal surgery to exclude gossypiboma. These cases highlight the various diagnostic and management challenges including divulging the information to the patient despite the medico-legal consequences. Human errors can not be abolished but must be reduced to a minimum. In this regard, strict adherence to operating theatre rules, continuous medical education for all theatre users and the implications of failure to conduct punishments are the corner stone.

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References

- [1] Kamal E, Bani-Hani, Kamal A et al: Retained Surgical Sponges (Gossypiboma). *Asian Journal of Surgery* 2005; 28 (2): 109-115.
- [2] Jebbin NJ, Adotey JM. Gossypiboma: A report of 2 cases. *Niger J Med* 2006; 15: 87-88.
- [3] Nancymarie Fortunato. Coordinated Roles of the Scrub Person and the Circulator. In: Berry and Kohn's *Operating Room Technique* 9th Edition, St. Louis: Mosby, 2000: 476-482.
- [4] Turgut M, Akyuz O, Ozsunar Y, Kacar F: Sponge Induced Granuloma (Gauzoma) as a complication of Posterior Lumbar Surgery. *Neurol Med Chir (Tokyo)* 2005; 45: 209-211.
- [5] Rajput A, Loud PA, Gibbs JF, Kraybill WG. Diagnostic challenges in patients with tumours: Case report 1. Gossypiboma manifesting 30 years after laparotomy. *J Clin Oncol* 2003; 21 (19): 3700-3701.
- [6] Kato K, Suzuki K, Sai S et al: A case of Para vesical foreign body granuloma due to surgical sponge retained for 40 years. *Hinyokika Kyo*: 2000; 46 (7), 491- 494 (In Japanese).
- [7] Stoll A: retained surgical sponge 40 years after laminectomy. *Case report. Surg Neurol.* 1988; 30: 235-236.
- [8] General Medical Council. *Management in Health Care: The Role of Doctors.* London. 1999: 1-12.
- [9] General Medical Council. *Good Medical Practice:* London. 2001: 1-20.
- [10] Fadiora SO, Komolafe JO, Ogunniyi SO: Gossypiboma Stimulating Huge Ovarian Mass. *Niger J Med.* 2003; 12(1): 52-53.
- [11] Jason RS, Chisolm A, Lubertsky HW. Retained surgical sponge simulating a pancreatic mass. *J Nat Med Assoc* 1979; 71: 501-503.
- [12] Eboreime O, Adah JII, Irabor DO Ajao OG. Closure of Colostomy: When is the Optimal Time? *The Ibadan Surgeon:* 1993; 19(4), 134-139.
- [13] Neil J, Mortensen C, Jones Oliver: The small and large intestines. In *Bailey and Love's Short Practice of Surgery*, 24th Ed, London. Hodder Arnold; 2004:1183-1185.