TEXTILOMA: UNEXPLAINED ABDOMINAL PAIN FOLLOWING CAESAREAN SECTION

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Summary

Retaining of surgical sponges or instruments in the abdomen during surgery usually menifest as abscess, abdomino cutaneous fistula with or without any definite symptoms during lifetime. A 22years lady presented to us with persistant symptoms of foul smelling lochial discharge, fever and abdominal pain of about 3 months following caesarean section due to retained gauze into abdominal cavity. The condition is termed as textiloma or gauzoma(from surgical gauze). Several reports of textiloma were reported in literature but migration of retained gauze into terminal ileum without producing bowel symptom is not reported. It is an ethical surgical repercussions following caesarean section.

Key words

Surgical error; Textiloma; Retained foreign body.

Introduction

Textiloma is a latin word textile, (cotton wool, cotton) and suffix "oma" means a growth or tumour and a mass within comprising a cotton matrix surrounded by a foreign body granuloma. It is a condition of pseudo tumour formation in which inflammatory reaction caused by foreign body [1].

Textiloma is a technical term broadly used to understand or define retained material or object (RFO) during surgery. In most cases it occurs accidentally that is left behind in patient's body & manifestation of which is variable [2].

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As classical presentation or notification of symptoms & signs depends upon indication, type, time, place of surgery, tissue handling, haemostasis, operator skills and individual body response to foreign body.

In severe form of textiloma manifestation may occur earlier following surgery in the form of abscess formation, septicaemia or other systemic upset [3].

Progression of disease with moderate severity in which woman may present even months or years following primary surgery in the form of persistent abdominal pain of unclear origin with or without bowel obstruction & remain unresponsive to traditional conservative approaches [4].

Items like cotton, gauze or other things when left behind unwillingly or mistakenly per operatively also called cottonoid or gossypiboma. In latin gossypiam means cotton and boma means place of concealment (in Swahili word) i.e. a retained surgical foreign body with variable tissue reation (most common is the laparotomy sponge). The reports of this technical error are the tip of iceberg due to wide spread media involvement &critical press coverage in present day practice along with medicolegal implication. So there is a general reluctance to publish matters or inform or to report in literature. First case of textiloma was reported by Wilson in 1884 [9].

Textiloma are most frequently diagnosed in the gynae or general surgery i.e. intra abdominal procedure but there are some other sites are reported in literature; (amongst the few sites are rare) such as Chest CNS breast also from orthopaedic surgery [10-13].

As soon as the diagnosis is suspected the treatment is surgical removal. Subsequent surgery can be performed either by laparotomy or laparoscopy or by endoscopically depending upon available facilities considering progress and impaction of textiloma to prevent serious complications like mortality (15-20%) morbidity [14].

Case Report

Mrs. R.A, 22 years old woman delivered by caesarean section due to 2nd gravida with 38 weeks pregnancy with previous history of caesarean section. Female baby of 2.9kg was delivered with good Apgar Score. Post operative period was almost uneventful and discharged with advice on 5TH postnatal day. One and half month after delivery, she noticed foul smelling vaginal discharge associated with mild to moderate abdominal pain and low grade fever.

She attended to out patient department at several time and treated conservatively but symptoms were not relieved. Investigations of blood biochemistry i.e. Haemoglobin level, ESR, total count & differential count of WBC count was within normal range.USG revealed solid looking lump with linear echogenic centre and possibilities of organized haematoma, abscess, foreign body. Shown in the following figure-

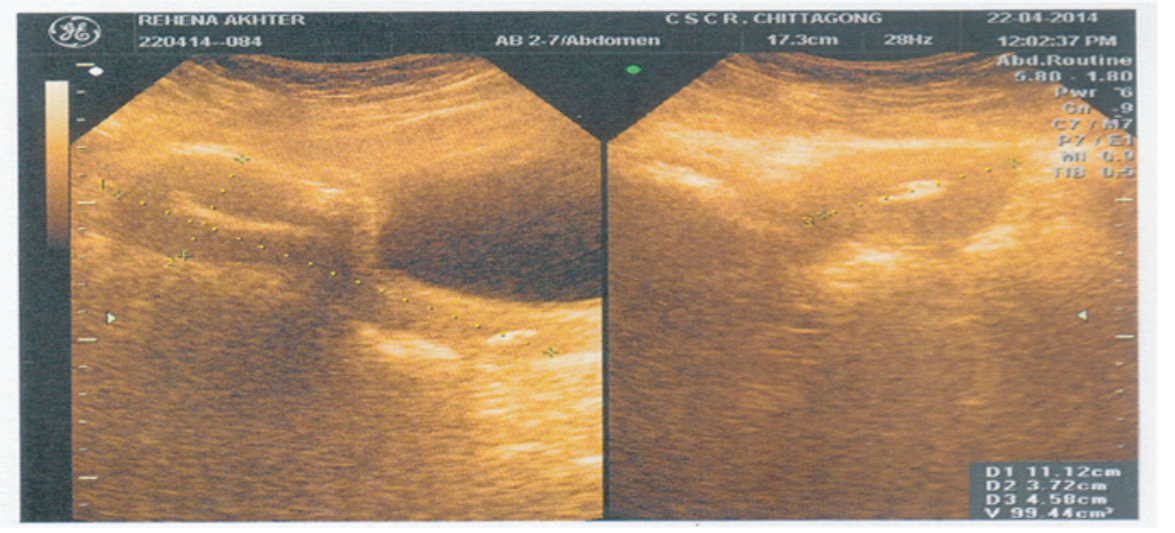

Fig 1 : USG of Suspected Foreign body with linear echogenic centre

She was admitted into inpatient department due to suspicion of foreign body. Counselling & duly informed consent was taken for laparotomy. Laparotomy was done 3 1/2 months later. Injury to ileum was evident. Mop was impacted and contaminated with faeces. Then mop was removed and adhesiolysis was done. Intestinal injury was repaired accordingly and toileting of peritoneal cavity was done.

After proper haemostasis counting mop and instruments abdomen was closed in layers by keeping 2 drain in situ. Well tolerated post operative period with gradual & good recovery. Wound was healed by secondary intention.

Discussion

Early diagosis is preferable but late diagnosis along with bacterial contamination may be responsible for fistula formation resulting in serious morbidity [15].

In some reported cases textiloma may impact ileocaecal valve and resulting in intestinal obstruction at this level but when they pass through the ileocaecal valve, they can be extracted through the anus [16].

Textiloma in abdomen may produce some non specific features like abdominal pain, distension, nausea, vomiting & palpable mass [17].

Diagnostic difficulties also arise when items like sponges are retained as these are radiolucent but, conventional radiography are helpful when whorlike pattern is visible [15,17]. Though textiloma or gossypiboma is a rare surgical sequale where sponges are mostly retained due to several reasons. Gossypiboma or textiloma or retained surgical sponge or foreign body is not indexed in textbook of radiology as an imaging finding; they can only be found as ocassional case reports probably due to variable presentation or assessment difficulties or reporting restriction i.e. between 1 in 100 and 1 in 5000 [18].

It has been observed that incidence of textiloma is 9 times more in emergency surgical indication and 4 times more in changes in surgical procedure specially when they are undertaken unexpectedly [19].

There are several reports of textiloma world-wide that are usually caused by abdominal or gynaecological surgery. Exact incidence could not be elucidated due to various reasons but mainly for ethical issues [5]. The incidence of reported rate of retained foreign body .01% to .001% of which textiloma comprises upto 80% of cases [1-3].

Another report states that, probably it occurs 1 in 100-3000 of all surgical investigations and 1 in 1000-15000 intra abdominal surgery specially with busy surgical field, emergency, unplanned changes in procedure and high BMI [5-7].

As obese patients have a large intraperitoneal space to hide mop & obesity itself offer more technical difficulty in surgical approach [19].

Initiation and progression of pathology are important. Usually two major types of reaction occurs in response to retained surgical foreign body. Firstly, abscess formation with or without secondary bacterial infection due to FB like mop, needle contaminated with other body tissue or secretion. Secondly, an aseptic fibrinous response resulting in tissue adhesions, encapsulation and eventually foreign body granuloma. Symptoms may not produce earlier, sometimes present months or years following surgery.

Clinical presentation may be moderate to severe form e.g. sepsis or fistula formation, sometimes fatal or life threatening, although they are less reported due to fear of legitimacy. Diagnosis poses some dilemma e.g. palpable mass at the site of operation. Biochemical report may not reveal any abnormality. Radiography and USG – may be helpful in some case. Recent advances like CT, MRI, may be indicated ocassionally. Differential diagnosis of lump are abscess formation, haematoma, cystic mass, calcification, air bubbles & neoplasm.

Other differential diagnosis may be subacute bowel obstruction following surgery.In severe cases it ends up with bowel perforation, faecal fistula, infection or even death.

In this reported case though the mop was impacted in ileum that observed during laparotomy but neither she developed septicaemia nor any fistula was seen; this is a late sequale with moderate moribund postnatal period. In present day obstetrics practice with the advant of antibiotics either due to use or abuse of these medications and their availability along with good body resistance, recent concept of life style and immune response are the probable causes of safety from stormy outcome that are described above. There are some recommendations to prevent this mis-happening-

a) Sponges, mop are counted by hand before and after operation. This method was codified into recommended guidelines in 1970's by association of perioperative registered nurses (AORN) [8].
b) Four separate counts are recommended-
   - 1st – when instruments, gauze, mops are first unpackaged and set up.
   - 2nd – before beginning of operative procedure
   - 3rd- as closure starts.
   - 4th- during final skin closure.
c) Other guidelines have been promoted by American College of surgeons and joint commission.
d) Surgical sponges contain radioopaque materials in some countries to fascilitate early detection of foreign body during operation.
e) Some surgeons recommended routine postoperative x-ray films following surgery to exclude FB inclusions.

Conclusion

Surgeons have a combination of duties during and following surgery regarding life and health of the individual. This is also a conduct of ethical aspects to respect to human dignity and equality. So, prophylaxis is the mainstay of management. Considerations of ethical background is prior with formost important. Specific therapeutic measures should be managed by a team approach. Chain of surgical turnover team should be monitored accordingly. Role of professionals & society of surgeons should be concerned more regarding medicolegal issues, recommendation and morbidity of individual patient and caregiver.

Disclosure

All the authors declared no competing interest.

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