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Literature matters research bulletin

Supra-aural Gossypiboma: case report of a retained textile surgical sponge in an unusual location

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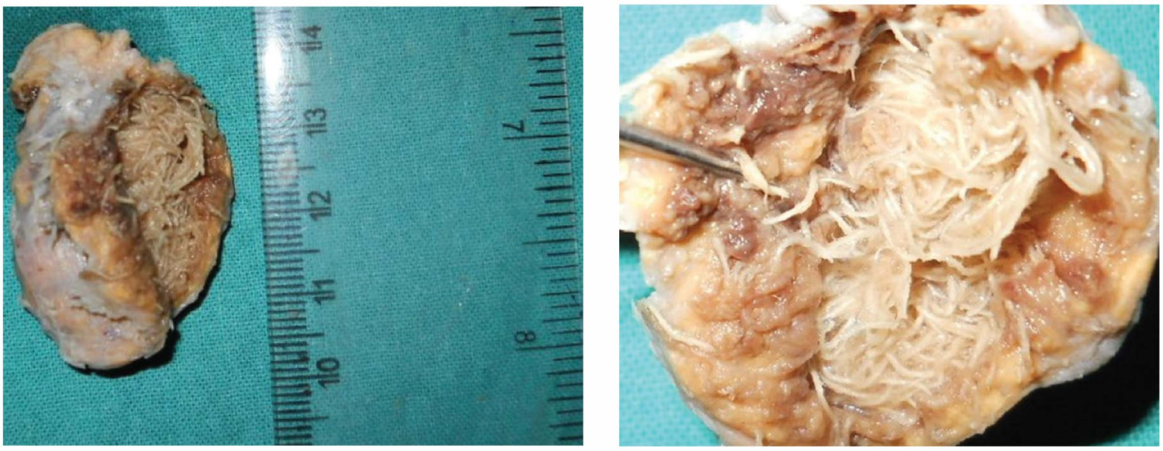
Case report:
Reports are available worldwide of surgical instruments, needles, clamps, sponges, gloves and various other 'retained surgical items' left accidentally by surgeons in the patient's body. Various terms have been used for a retained textile surgical sponge, such as textiloma, cottonoid, cottonbolloma, muslinoma and gauzeoma, but the most widely accepted term has been gossypiboma, derived from the Latin *gossypium* (*cotton*) and Kiswahill *boma* (*place of concealment*).[1]

A 25 year-old male patient reported to the author's ear nose and throat (ENT) outpatient department with a 2 month history of swelling and pain in the right supra-aural region. The patient has a past history of right-ear discharge, with decreased hearing for the past 10 years. He was diagnosed with chronic suppurative otitis media (atticoantral disease) and had undergone right modified radial mastoidectomy (MRM) 5 months ago elsewhere.

On physical examination, a 3cm x 2cm swelling was seen in the right supra-aural region. On palpation the swelling was cystic to firm, non-tender and overlying skin was normal. A postaural scar from the MRM surgery was present. Otoscopic examination revealed a wide meatoplasty and a healed mastoid cavity in the right ear. The rest of the ENT examination was within normal limits. Fine-needle aspiration cytology of the swelling was advised, which reported an infected epidermal inclusion cyst. All other laboratory examinations were unremarkable. Surgical excision of the inclusion cyst under local anaesthesia was planned. On cutting open the encapsulated mass, a surgical gauze sponge was found, which was a completely unexpected finding (*images below*). The patient's postoperative recovery was smooth and uneventful.



(Encapulsated mass with cotton fibers)

Discussion:
Surgical sponges are made of cotton, an inert material that does not stimulate any specific biochemical reaction except adhesion and granuloma formation.[2] Since symptoms of gossypiboma are usually nonspecific and the condition may appear years after surgery, a high degree of suspicion is one of the keys to establishing a diagnosis postoperatively.

The actual incidence of surgical sponges retained during operations is difficult to estimate: however, the following rates have been reported. Gawande et al reported an incidence of gossypiboma of 1 in 100-3000 for all surgical interventions and 1 in 1000-1500 for intra-abdominal operations.[3] Overall, the incidence has been reported to be 1 in every 3000 procedures.[4]

As suggested by Abu-Ella Amr in 2009,[5] counting of surgical sponges at the start and end of the surgical procedure is not sufficient on its own. The author's support the practice of reconfirming the number of surgical sponges with the assisting nurse intermittently and also before wound closure.

In addition, the prevention of retained surgical items will require behavioral changes, a change in surgical practices, and ergonomic operating room environment and shared information between all operating room personnel.

Conclusion:
Despite stringent policies and surgical room protocols, gossypiboma continues to occur worldwide and, at the same time, remains underreported. Gossypiboma should be considered in the differential diagnosis of swellings at or near the surgical site in postoperative patients.

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