CASE REPORT

Infected Textiloma, 35 Years after the Operation for Femur Fracture, an extermly rare occurance

Amir R Sadeghifar, MD; Ali R Saeed, MD

Research performed at Kerman Neuroscience Research Center, Dr Bahonar Hospital, Kerman University of Medical Sciences, Kerman, Iran

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Abstract

Retained gauze after surgery is an uncommon error and it may be associated with many complications. We are reporting our case to call attention to the fact that retained gauze may become symptomatic even after a very long interval.
Herein we report on a patient who developed infection and fistula with discharge from this error 35 years after a surgery for femur fracture and insertion of a IM nail. The diagnosis was easily made because of a marker in the gauze. Removal of the gauze and irrigation and debridement of the wound in two stages led to complete recovery of the patient as was shown in the 1 year follow up.
Retained gauze after surgery is a preventable complication and may be asymptomatic for a very long period, but can become a complication post-operatively at any time. Hence, if diagnosed immediately after the surgery or at any other time, the gauze should be removed.

Key words: Surgical sponges, Fracture, Femur, Infection

Introduction

Textiloma and gossipyboma are nonmedical terms referring to retained cotton materials in body cavities after surgical operations (1). Nowadays with synthetic material used in gauze and medical towel production, the term gossipyboma (meaning granulomatous reaction to cotton) has been replaced by textiloma, though they are used in many cases interchangeably. Of course the true incidence cannot be determined because of legal aspects, though it has been reported to occur in one in hundred to one in five thousand surgeries and so, this large variation in the incidence is a proof to the difficulty of the true incidence determination (2, 3). Retained gauzes are mostly seen in abdominal and OB/GYN surgeries, but it has been reported in the thorax, spine, limbs and evenamputation stumps (4, 5). Limb textilomas occurs less than others as our study has shown (5-7). The most impressive of these cases may be a patient who developed this complication twice after two consecutive operations (8).

Case report

The patient was a 60 year old man who had undergone open reduction and open intramedullary nailing (Kuntcher) for his fractured femur in another center 35 years ago. He came to our clinic presenting with redness, pain and swelling in his thigh for the last two weeks. Pre- and postoperative radiograms were not available and he had not been referred for nail removal. Also, he mentioned no problems in the last 35 years related to the fractured limb. In a physical examination a draining fistula was found in the posterior thigh. Positive laboratory findings included an increase in WBC count (14000) with a shift to the left. CRP was negative and ESR was 10. A radiograph of the thigh revealed a completely healed fracture of the femur, an intramedullary nail without locks, a mass with a radiopaque line and some bone resorption in the mass area. The radiopaque line in the mass raised the almost certain possibility of a retained gauze, so no more workup was performed as the diagnosis was obvious. The mass was removed under general anesthesia and it was found to be surgical gauze, which was compatible with the preoperative diagnosis. Moreover, considering the possibility of pathologic fracture due to bone erosion in the area a proximally locked intramedullary nail was inserted (6).

***Corresponding Author*:** Amir R Sadeghifar, Kerman Neuroscience Research Center, Dr Bahonar Hospital, Kerman University of Medical Sciences, Kerman, Iran.
Email: sadeghifar @kmu.ac.ir

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The postoperative course was uneventful and the infection was controlled completely with disappearance of the fistula. The patient was encouraged to bear weight on the limb and in the one year follow up he had no complaints and did not perform the requested radiograph (Figure 1-3).

Discussion

Perhaps the first report of retained surgical instruments can be attributed to Wilson in 1884 (9). Despite the passage of 130 years and frequent recommendations, this preventable complication still occurs, probably not infrequently. Without doubt, many of these cases are never reported, are discovered accidentally and during operations for other reasons (2) and many remain asymptomatic;

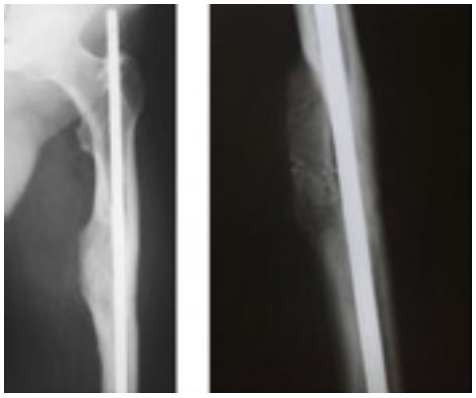

Figure 1. Preoperative radiographs.

however, retained surgical gauze in the abdomen may be fatal. Hence, when a patient presents with a mass, as the diagnosis is extremely difficult, the possibility of performing a biopsy even more than once is very high. Even so, an interesting review of literature revealed that this diagnosis has been initially suspected in 35% of the 117 reported textilomas (10).

What are the dangers of retained gauze after surgery? In rare cases the textiloma may be expelled spontaneously, but aside from infection, which occurred in our patient, retained gauze may be fatal. On the other hand, the retained gauze is usually discovered soon because of infection and fistula formation (3). After this, it may cause other complications including pseudotumors. In fact, gossypiboma induce two types of reactions in the body: exudative and aseptic fibrous (1). In cases in which no purulent reaction occurs, granuloma and capsulization will be induced and the presentation may be postponed for years. Again, retained gauze may cause bone resorption, pathologic fracture, visceral perforation and vascular occlusions (4,6). In some cases the possibility of malignant changes due to retained gauzes has been raised in humans and dogs (11, 12). The bone may show several reactions and erosion and periosteal reaction to osteoblastic (bone forming) changes may be observed. In our patient, erosion occurred as well as a very late presenting infection, which is a very rare event as infection usually occurs early. It may be assumed that in this case, the in place implant has been a factor in preventing further bone resorption and pathologic fracture, although it may have aided in infection occurrence.

Figure 2. Postoperative radiograph.

How can this complication be prevented? The most important point is gauze count, which is an established rule in any surgical procedure, but in our and others' experience, not only the surgery may end without a gauze count, but also the count may be reported mistakenly (13). The second point is utilization of gauzes with radiopaque markers, although there is a 10% false negative rate for surgical swabs and 65% for small gauzes (13). It is interesting that at least in one case, the retained gauze was marked and the radiogram several years later had been mistakenly interpreted as the wound having been dressed with marked gauze; Anyway, mistakes in interpreting X-rays in these cases occurs not infrequently (5, 14).

As our patient had undergone surgery in another center 35 years ago, we did not have access to his file and because of the very long time interval he could not remember whether postoperative radiographs had been performed. In this case, in whom the gauze was obvious, it should be considered that either a radiograph has not been performed (after the surgery and in follow up), although extremely far-fetched, or the surgeon has found the gauze and has erroneously decided not to remove it. Retained gauze after surgery, though not common is not a rare event and when diagnosed, the gauze should be removed, as it is associated with several complications including morbidity. Also, regarding the patient presented in this paper, the late occurrence of infection is a very rare event.

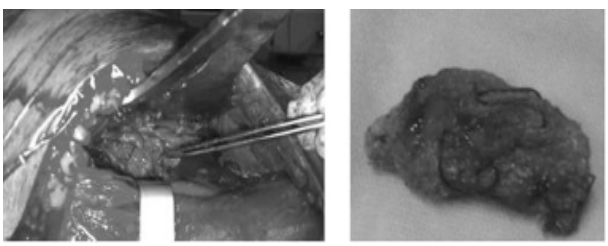

Figure 3. Intraoperative photographs of the retained gauze.

Amir R Sadeghifar MD
Ali R Saeed MD

Kerman Neuroscience Research Center, Dr Bahonar Hospital, Kerman University of Medical Sciences, Kerman, Iran

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