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Unusual Soft Tissue Foreign Bodies: A case series

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Abstract

Successful removal of foreign bodies requires adequate local or regional anesthesia and good lighting. Depending on location and depth, tourniquet control of bleeding and assistance may be needed. Depth and accessibility of the object and physician time are the limiting factors for removal of foreign bodies by the emergency physician. Foreign bodies buried deeply in adipose tissue or muscles are difficult to locate. 1st case was a male with foreign body

in lower extremities soft tissue. 2nd case was a female with foreign body in left midfoot. 3rd was a male with foreign body in right thumb.

The techniques for soft tissue foreign body removal are based on clinical experience; there are no controlled or randomized studies comparing different approaches or techniques.

Keywords: Foreign Bodies, Surgery, Soft Tissue

1. Background

Soft tissue foreign bodies may be encountered when managing new wounds or evaluating complications of old wounds [1]. Methodically search fresh wounds for contamination by foreign material. If a foreign body is discovered within a wound cavity or deeply embedded in tissue, decide if removal of the material is urgent, can be delayed, or is even necessary. The decision to remove foreign bodies located below the dermal layer of skin depends on the size, location, composition, accessibility, and anticipated mechanical and inflammatory effects of the object. Many foreign bodies should be removed in the ED. For example, all foreign material within the cavities of fresh lacerations should be irrigated away, debrided, or extracted with instruments. Occasionally, patients with subcutaneous foreign bodies should be referred to appropriate specialists for delayed removal [2]. Most foreign bodies are detectable during clinical examination [3]. Imaging studies are used to evaluate wounds when a concealed object is possibly present [4].

The patient's description of a foreign body sensation in a fresh wound is a useful sign in adults—the perception of a foreign body more than doubles the likelihood of one being present [5]. However, foreign body sensation is less useful in verbal-age children [6].

Successful removal of foreign bodies requires adequate local or regional anesthesia and good lighting. Depending on location and depth, tourniquet control of bleeding and assistance may be needed. Depth and accessibility of the object and physician time are the limiting factors for removal of foreign bodies by the emergency physician. Foreign bodies buried deeply in adipose tissue or muscles are difficult to locate. Although most foreign bodies in hands should be removed because the hand is mobile and sensitive, deep exploration of the hand by the emergency physician is not recommended because knowledge and experience are needed to avoid injury to numerous closely spaced vital structures. The "No Man's Land" of the hand [2]. In this case series we try to attract notification of physician to the foreign body in unusual parts of human body.

2. Cases presentation

Case 1:

A 12 years old boy with knife in the left lower extremities that we escaped that foreign body in operation room with anesthesia.



Fig 1: Knife in left lower extremities



Fig 2: Knife in left lower extremities

Case 2:

A 18 years old female with knitting needle in left midfoot, that take out carefully.



Fig 3: Knitting needle in left midfoot

Case 3:

A 16 years old male with knitting needle in right thumb, that take out carefully.



Fig 4: Knitting needle in right thumb

All of these cases were a part of huge number of patients with foreign bodies in soft tissue.

3. Conclusion

Physicians are occasionally surprised by foreign bodies that are embedded in small or seemingly superficial wounds. Physical findings that are associated with the presence of a foreign body include a discoloration or visible mass under the epidermis, palpation of a mass, sharp well-localized pain with palpation over or adjacent to a wound, and limitation of passive range of movement of a joint near a wound. [2] Once a soft tissue foreign body is discovered, weigh the risk of leaving the foreign body in place against the potential harm of attempting to remove it. Not all foreign bodies must be removed, and not all that require removal must be extracted in the ED. General indications for foreign body removal include potential for later infection, toxicity, injury, and functional problems [2]. The techniques for soft tissue foreign body removal are based on clinical experience; there are no controlled or randomized studies comparing different approaches or techniques [7, 8].

Our cases highlights the importance of good history, clinical examination, relevant radiological investigation and simple measures to solve the problem. [9] Some Reaction will expose with the chemical composition of the product, and the histopathologic aspects are discussed [10].

4. Declarations

Ethical Approval and Consent to participate:

The content of this manuscript are in accordance with the declaration of Helsinki for Ethics. No committee approval was required. Oral and written consent to participate was granted by the parents.

Consent for publication:

“Written informed consent was obtained from the patient's legal guardian for publication of this case report and any

accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.”

Availability of supporting data:

It is available.

Competing interests:

The author declares that they have no competing financial interests and nothing to disclose.

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Authors' contributions:

Ahmad Reza Shahraki is the surgeon of patient and writes this paper. Reza Abaee collects datas and Elham Shahraki reviews paper.

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5. Acknowledgements

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6. References

1. Orlinsky M, Bright AA. The utility of routine x-rays in all glass-caused wounds. *Am J Emerg Med.* 2006; 24: 233.
2. Chapter 45. Soft Tissue Foreign Bodies. Tintinalli's Emergency Medicine: A Comprehensive Study Guide, 8e.
3. Weinberger LN, Chen EH, Mills AM. Is screening radiography necessary to detect retained foreign bodies in adequately explored superficial glass-caused wounds? *Ann Emerg Med.* 2008; 51:666.
4. Blankenship RB, Baker T. Imaging modalities in wounds and superficial skin infections. *Emerg Med Clin North Am.* 2007; 25:223.
5. Steele MT, Tran LV, Watson WA, Muelleman RL. Retained glass foreign bodies in wounds: Predictive value of wound characteristics, patient perception, and wound exploration. *Am J Emerg Med.* 1998; 16:627.
6. Friedman DI, Forti RJ, Wall SP, Crain EF. The utility of bedside ultrasound and patient perception in detecting soft tissue foreign bodies in children. *Pediatr Emerg Care.* 2005; 21:487.
7. Halaas GW. Management of foreign bodies in the skin. *Am Fam Physician.* 2007; 76:683.
8. Winland-Brown JE, Allen S. Diagnosis and management of foreign bodies in the skin. *Adv Skin Wound Care.* 2010; 23:471.
9. Trehan RK, Haroon A, Memon S, *et al.* Successful removal of a telephone cable, a foreign body through the urethra into the bladder: a case report. *J Med Case Reports.* 2007; 1:153. Doi: <https://doi.org/10.1186/1752-1947-1-153>.
10. Doi: <https://doi.org/10.1016/j.tripleo.2005.04.022>