

Case study

MANAGEMENT OF INTRA-CAVERNOUS FOREIGN BODIES: CASE REPORT

Abstract

We report an unusual case of a retained needle caused by an accident while using a pneumatic brad nailer. A 24 year-old —man, professional carpenter, without any past medical history, presented in the emergency department with a “needle in his penis “. The patient reports that a needle has been retained in his penis after he misses his target with a pneumatic brad nailer while he was doing his job. We suggest his conservative approach for two reasons. First, exploration of an impalpable needle in the corpus cavernosum carries with it the risk of damaging the normal cavernosal tissue, especially for patients who doesn't have an erectile dysfunction. Second, as demonstrated in our case, the retained needle did not seem to interfere with subsequent erectile function.

Keywords: Intra-cavernous foreign bodies, cavernosum carries, erectile function, pneumatic brad nailer

Comment [CO1]: Insert MeSH key words

I. Introduction :

Intra-cavernous foreign bodies are a relatively rare occurrence, with several case reports in the literature to describe presentation and management. Several causes have been described, including mostly the intracavernous self-injection of pharmacologic agents for erectile dysfunction. Different approaches have been adopted in the management of such retained intracorporeal needles, ranging from immediate surgical exploration to abstention and surveillance. We report an unusual case of a retained needle caused by an accident while using a pneumatic brad nailer.

II. Case report :

A 24 year-old man, professional carpenter, without any past medical history, presented in the emergency department with a “needle in his penis “. The patient reports that a needle has been retained in his penis after he misses his target with a pneumatic brad nailer while he was doing his job. There was no evidence of infection (chills, fever, or leucocytosis). Local

Comment [CO2]: More details on the mechanism of injury. How was the needle able to pierce the trousers, and lodge in the penis ? Was he working naked ? why was the penis susceptible to this kind of injury ? Could he have had an erection at the time of the accident ? Was there a suicidal intent ?

examination revealed a normal penis; no metal fragment was palpable. The patient doesn't present any lower urinary tract symptoms (LUTS) or pain and have a good erectile function. X-ray of the penis (Figure 1) revealed a needle in the left corpus cavernosum. The patient was initially treated with oral antibiotics for 2 weeks to prevent any infection. On evaluation after 4 weeks, the aspect of the penis was normal, the needle remains not palpable and the patient doesn't present any LUTS or painful erection. X-ray of the penis was redone with the same result as the first one (Figure 2). Our team has chosen to monitor the patient and not to take any operational risk.



Figure 1 X-ray at Admission



Figure 2 X-ray after 4 weeks

III. Discussion :

Intracorporeal needle breakage is a rare complication of ICI, with only a few cases reported (1-5), but to our knowledge, this is the first case report of a retained intracavernous needle due to an accident with pneumatic brad nailer. Patient usually present with a history of needle breakage or penile edema. The etiology of breakage is unknown; however the use of force (3), poor manual dexterity (1, 5) or the use of a bent needle (4) may play a role; but our patient was quite unusual. The cause was absolutely different from all those cited in the literature but the result was the same. The diagnosis is usually straightforward and may be confirmed by plain x-rays to demonstrate the presence of a retained needle. Ultrasonography can be used for localization of the needle.

Retained intracavernous needle have been managed variably depending on whether the needle fragment was palpable. Palpable needles have been removed immediately under local anesthesia (4, 5). Impalpable needles have been managed by either immediate removal by manipulation under ultrasound guidance (3) or by surgical exploration. Others have preferred

Comment [C03]: Was there haematuria ?

Comment [C04]: What was the size of the needle in question ? How many needles were they ?

Comment [C05]: How is the patient faring on follow up. Has the patient been seen after month since injury ?

Comment [C06]: Write in full first before using abbreviation

an initial conservative approach, followed by removal of needle fragments only when palpable at a later date (2).

On the basis of a review of published studies and the present case report, we believe that the treatment should be individualized, as determined by the patient's clinical presentation and erectile function to not any operational risk like an erectile dysfunction. In the absence of a penile abscess or obviously palpable needle, non operative management with antibiotics should be considered. However, if the patient develops an abscess or the needle becomes palpable, surgical drainage of the abscess and removal of the obviously palpable needle should be performed. We suggest his conservative approach for two reasons. First, exploration of an impalpable needle in the corpus cavernosum carries with it the risk of damaging the normal cavernosal tissue, especially for patients who doesn't have an erectile dysfunction. Second, as demonstrated in our case, the retained needle did not seem to interfere with subsequent erectile function.

Comment [C07]: Rephrase

Comment [C08]: Do you have the facilities for image guidance (ultrasonography, fluoroscopy) ? You can add this to explain your choice of conservative approach.

Comment [C09]: What is the long term plan for this patient ?

The present case report also highlights the importance of protective equipment in the risky job.

IV. Conclusion :

In conclusion, the occurrence of Intra-cavernous foreign bodies is a rare occurrence.

Timely evaluation with a history and physical is advocated to ascertain the palpable character of the needle and consequently decide of the treatment.

References:

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