

Management of Intra-Cavernous Foreign Bodies: Case Report

**Bencherki Youssef ^{a*}, Ghannam Youssef ^a, Chadli Mohammed Achraf ^a,
Moataz Amine ^a, Dakir Mohammed ^a, Debbagh Adil ^a and Aboutaieb Rachid ^a**

^a Department of Urology, Ibn Rochd University Hospital, Casablanca, Morocco.

Authors' contributions

This work was carried out in collaboration among all authors. Authors BY, GY and CMA analyzed and performed the literature research. Authors MA, DM, DA and AR performed the examination and performed the scientific validation of the manuscript. Author BY was the major contributors to the writing of the manuscript. All authors read and approved the manuscript.

Article Information

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/88072>

Case Study

Received 05 April 2022

Accepted 09 June 2022

Published 14 June 2022

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, the retained needle did not appear to interfere with subsequent erectile function in our case.

Keywords: Intra-cavernous foreign bodies; erectile function; pneumatic brad nailer.

1. 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. In the management of such retained intracorporeal needles, many techniques have been used, ranging from prompt surgical examination to abstention and surveillance. We

*Corresponding author: Email: bencherki.y@outlook.com;

report an unusual case of a retained needle caused by an accident while using a pneumatic brad nailer.

2. 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 examination revealed a normal penis; no metal fragment was palpable. The patient doesn't present any lower

urinary tract symptoms (LUTS) or hematuria or pain and have a good erectile function. X-ray of the penis (Fig. 1) revealed one needle in the left corpus cavernosum measuring 10 mm. 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 (Fig. 2). Our team has chosen to monitor the patient and not to take any operational risk. The patient was seen 3 and 6 months after the accident without any complaint.



Fig. 1. X-ray at admission



Fig. 2. X-ray after 4 weeks

3. DISCUSSION

Intracorporeal needle breakage is a rare complication of intracavernosal injection, with just a few examples recorded [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. A history of needle breakage or penile edoema is generally present in the patient. 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 clear, and plain x-rays to show the existence of a retained needle can be used to confirm it. 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 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 take any operational risk like an erectile dysfunction” [6]. In the absence of a penile abscess or visibly palpable needle, antibiotics should be investigated as a non-operative treatment option. However, if the patient develops an abscess or the needle becomes palpable, the abscess should be drained surgically, and the needle should be removed. We recommend his conservative approach for two primary reasons. First, exploring the corpus cavernosum with an impalpable needle poses the danger of harming normal cavernosal tissue, especially in people who do not have erectile dysfunction. Second, the retained needle did not appear to interfere with later erectile function in our situation. If the

patient present any complaint, like painful erection or hematuria, a surgical treatment will be proposed.

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

4. 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.

CONSENT

As per international standard or university standard, patients’ written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Beer SJ, See WA. Intracorporeal needle breakage: An unusual complication of papaverine injection therapy for impotence. *J Urol.* 1992;147:148–150.
2. Greenstein A, Sofer M, Chen J. Delayed retrieval of fragment after needle breakage during intracavernous self-injection. *J Urol.* 1997;157:953.
3. Iacono F, Barra S. Intracorporeal needle breakage as an unusual complication of intracavernous self-injection. *Tech Urol.* 1998;4:54–55.
4. Mark SD, Gray JM. Iatrogenic penile foreign body. *Br J Urol.* 1991;67:555–556.

5. Nazli O, Atesci YZ, Girgin C, et al. An unusual complication of intracavernous self-injection of papaverine. Br J Urol. 1993;72:126–127.
6. Bandi G, Rajpurkar A, MacDonald MF, Dhabuwala CB. Multiple retained needles: an unusual complication of intracavernous self-injection. Urology. 2005;65(4):797.

© 2022 Youssef et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:

<https://www.sdiarticle5.com/review-history/88072>