



Rare Complication of Intracavernosal Injection Therapy: Breakage of Needle Inside a Penis

İntrakavernözal Enjeksiyon Tedavisinin Nadir Bir Komplikasyonu: Penis İçerisinde İğne Kırılması

Breakage of Needle Inside Penis

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Öz

İntrakavernözal enjeksiyon sonrası ağrı, ekimoz, priapizm dışında, nadir olarak penis içerisinde iğne kırılması gibi yan etkiler de görülebilmektedir. 63 yaşında intrakavernözal enjeksiyon sırasında enjeksiyon iğnesi penis içinde kırılmış olan hastaya görüntüleme yöntemleri sonrası cerrahi müdahale yapılarak iğne penisten dışarı çıkarılmıştır. İntrakavernözal enjeksiyon tedavisi erektil disfonksiyon tedavisinde etkili ve başarılı bir şekilde uygulanabilir bir yöntemdir. Bu tedaviye başlanmadan önce hastaya tedavinin uygulama şekli ve penis içinde iğne kırılması dahil olabilecek tüm yan etkiler ayrıntılı olarak anlatılmalıdır.

Anahtar Kelimeler

İntrakavernözal Enjeksiyon; İğne Kırılması; Komplikasyon; Eretil Disfonksiyon

Abstract

After intracavernosal injection, side effects such as pain, ecchymosis, priapism, and a very rare complication like needle breakage inside the penis can be observed. We present a case with surgical removal of needle breakage inside the penis. Our case was a 63-year-old patient, who suffered breakage of the needle inside his penis during intracavernosal injection and after screening methods, received surgical intervention to remove the needle. Intracavernosal injection therapy is a method that can be used effectively and successfully in the treatment of erectile dysfunction. Before performing this therapy, the patient should be informed in detail about the implementation of the therapy and all possible side effects including breakage of the needle inside the penis.

Keywords

Intracavernosal Injection; Needle Breakage; Complication; Erectile Dysfunction

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Introduction

The intracavernosal injection method that is used in the treatment of erectile dysfunction was defined in 1982. It is a second line treatment method that is used in patients who do not benefit from oral phosphodiesterase 5 enzyme inhibitors (PDE5i) and it provides satisfactory results in sexual functions [1, 2]. However, there are some local and systemic complications associated with intracavernosal injection. Early complications are pain, ecchymosis, priapism, and syncope and the most frequent late complications are cavernosal fibrosis with a rate of 1.9-16% [3, 4]. In this article, we aimed to present a surgical removal of needle breakage inside the penis that rarely occurs during intracavernosal injection.

Case Report

The 63-year-old male patient, who was known to have Type 2 diabetes mellitus for about 10 years, was given a PDE5i therapy with a diagnosis of erectile dysfunction. However, it failed, and intracavernosal injection therapy was recommended to the patient as a second line therapy. A 28-gauge insulin injector was broken while the patient was applying a papaverine injection to the right corpus cavernosum and he was immediately admitted to the emergency room. Deep palpation of the penis revealed stiffness in the right lateral side of the penis. In the right half of the penis, hyperemia on a small area consistent with the needle insertion was observed; no open wound or needle tip in the skin of the penis was observed (Picture- 1a). In the laboratory examinations, no pathology except high blood glucose levels was detected, and no hematuria was observed in the urine. Opacity associated with the needle inside the penis was observed in the X-ray imaging (Picture- 1b), while a linear hyperechogenicity of 8.5 mm in diameter, extending the right tunical tissue under the skin, was observed in the penile Doppler ultrasound. Penile exploration was planned for the patient. After degloving the penis, the needle located in the region of the right tunica albuginea was removed with the help of needle forceps (Pictures- 1c, 1d). No complication developed during intraoperative and postoperative period follow-ups. After receiving detailed information and practice regarding intracavernosal injection, he has continued his erectile dysfunction treatment.

Discussion

While PDE5i therapies remain popular today as a first line therapy in the treatment of erectile dysfunction, intracavernosal injection therapy is currently used as a second line therapy in a reliable and effective manner [5]. Furthermore, intracavernosal injection therapy is preferred by patients in our country because it is less costly than PDE5i therapy. It is necessary to resolve complications that may develop during this therapy in a way that minimizes harm to the patient and does not cause them to switch to oral therapy or to experience doubts about receiving intracavernosal injection therapy. In the resolution of these complications, there is a wide range of options from symptomatic treatment to surgical intervention. When we examine the literature, there are a few case presentations of needle breakage inside a penis during intracavernosal injection and its treatment.

Akyol et al. has explained the technical reasons for breakage

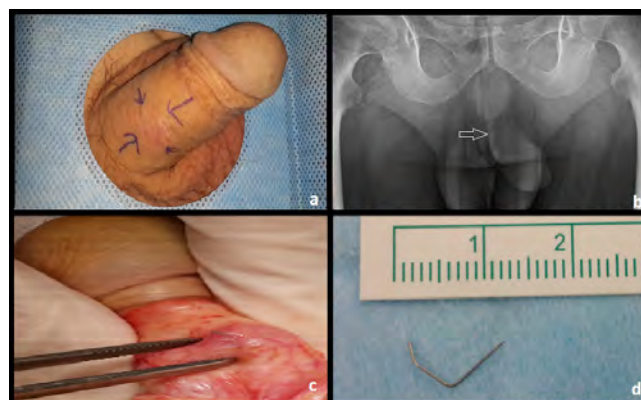


Figure 1. In the right half of the penis, the hyperemic lesion area indicated by the arrows (a); The needle opacity indicated by the arrow in the X-ray imaging (b); Operation image (c); Macroscopic view of the needle (d).

of needle inside the penis. The administration of the needle obliquely to the corpus cavernosum longitudinal line results in further forward movement in the corpus cavernosum and the needle may break when retracted as a result of improper bending force. It was also reported that using the correct injection method, practice with a physician, and manual skill, can prevent these complications; socio-economic status is also a factor [6]. There are few publications in the literature about intracorporeal needle breakage. Nevertheless, it has been reported in the literature that penile fibrosis and lateral deviation develop after deferred treatment [7].

Iacono and Barra have recommended that, if possible, the needle should be manually retracted; if it is not possible, it should be removed surgically [8]. Wayland Hsiao et al. presented in their case that location of the needle can be determined with the guidance of a portable ultrasound and that it can be retrieved without circumcision and without completely degloving the penis. The foreign object can be removed with a direct incision in the penis skin [9]. In this case, we preferred to remove the broken needle surgically, according to the general literature. In conclusion, intracavernosal injection therapy should be practically described to the patient, taking into consideration his socio-cultural background. The patient should be informed of all possible early and late complications of this therapy including breakage of needle inside the penis.

Competing Interests

The authors declare that they have no competing interests.

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