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(CASE REPORT)

Fracture of the penis by Taghaandan's manoeuvre: About a case and literature review

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Abstract

Summary: The Taghaandan maneuver is a rare form of penile fracture. It is more observed in the Middle East and North Africa. We report a rare case of penile fracture occurring in a North African subject living in France, after the forced maneuver of lowering the penis to simulate erection, also called Taghaandan maneuver.

Keywords: Fracture; Taghaandan; Erection; Penis.

1. Introduction

Penile fracture is a rare andro-urological emergency (1). It refers to the rupture of the tunica albuginea of the corpus cavernosum during vigorous sexual intercourse, masturbation and forced maneuvers on the erect penis. (1,2,). It may be associated with injury to the urethra.

It is a pathology of young adults with a large predominance among young single people. It is observed exclusively on an erect penis (2). It is caused by a non-physiological curvature of the axis of the penis leading to intracavernosal excess pressure (3).

Its incidence is low, but there are significant variations in the geographic distribution of cases. The most common cause being sexual intercourse in the Western world while the fracture known as the "Taghaandan maneuver" is the most common cause in the Middle East and the Maghreb (1).

The objective of this observation is to present this form of penile fracture, exceptional in Western countries, which is also called Taghaandan maneuver which consists of an intentional and forced flexion of the erect penis to simulate or allow its detumescence. (4)

2. Observation

We report the case of a 32-year-old North African man, married and living in France for approximately 5 years, who presented to the emergency room for a fracture of the penis occurring following a forced lowering maneuver on the penis in erection. He wanted to hide his penis which was erect.

The patient reported feeling a cracking followed by pain and immediate detumescence of the penis (Figure1). He had no urination problems or urethrorrhagia. He subsequently noticed a deviation and bruising of the penis. The increase

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in the volume of the penis and the bruise which was becoming more and more significant pushed him to consult the urological emergency room.

This is a patient who was very anxious. Examination of the external genitalia showed deviation of the edematous penis.

No imaging examination was performed in the emergency room.

The patient was informed of the risk of curvature of the penis, fibrosis and pain during sexual intercourse postoperatively.

Treatment in the operating room under general anesthesia (very anxious patient) consisted of a classic circumferential subcoronal incision with degloving of the penis up to the albuginea defect. It was a single, unilateral lesion measuring less than 1.5 cm, without urethral involvement (Figure 2).

The hematoma was removed, careful hemostasis was performed and the albuginea was repaired using separate stitches using a slow absorbable suture type PDS 3-0.

The postoperative course was simple. The patient was discharged from the hospital on the third postoperative day. He subsequently presented with painful erections and scar fibrosis.

Figure 1 Image showing the presence of the bruise and the deviation of the penis in favor of a penile fracture.

3. Discussion

The first reported case of penile fracture was reported by Abul Kasem, an Arab physician, over 1000 years ago. The incidence of PF is higher in countries in the Middle East and North Africa (5).

The causes of penile fracture are multiple and largely depend on geographic distribution (1)

According to Marco Falcone's series, in Western society the fracture of the penis generally occurs during sexual intercourse in almost 80% and in 9% by the Taghaandan maneuver (1), a word of Persian origin which means "to break the penile Qholenj "(5). This prevalence is attributed to immigration from the Middle East and the Maghreb (1).

On the other hand, in the Middle East and North Africa, we observe more fractures which occur after forced lowering maneuver on the erect penis (1.5). Our patient is a North African subject living in France for approximately 5 years.

In Iran, Zargooshi recorded in his series 172 cases in 9 years, all fractured after the Taghaandan maneuver. He attributed this high incidence to misinformation among the Iranian population about penile tissues (5,6). In Morocco, Professor El Fassi and his team listed in their series 10 cases of fracture of the corpus cavernosum occurring after inversion and forced manipulation of the erect penis compared to 3 cases of fracture caused by sexual intercourse. (7).Also in the Maghreb, Arza and Touiti presented in their Moroccan series of 56 cases, 37 patients who had a fracture of the corpus cavernosum following forced manipulation of the erect penis. They explain this high frequency to certain socio-cultural habits such as the strict ban on sexual relations outside of marriage in Muslim countries (8).

In all cases, the symptoms are similar: cracking, pain, detumescence, hematoma and curvature of the penis. (1). The occurrence of voiding problems and/or urethrorrhagia suggests an associated urethral lesion.

The patient with a penile fracture is anxious due to guilt or social stigma. The diagnosis of this pathology is clinical (1,4,6,7,8). Our patient presented all the symptoms of a penile fracture without voiding problems or urethrorrhagia. He had not carried out any paraclinical assessment. Ultrasound coupled with Doppler makes it possible to visualize the hematoma and identify the discontinuity of the tunica albuginea, thus guiding the surgical approach but should not delay surgical repair and it is an operator-dependent examination. It can also mask the tear and miss the diagnosis in the event of a hematoma (1.9).

Magnetic resonance imaging (MRI) can visualize an intracavernous hematoma, the loss of continuity of the albuginea and an associated rupture of the urethra in case of suspicion of the associated lesion of the urethra (1) but it remains a expensive examination and it is not often available in emergency and in all hospitals (9).

Treatment is surgical and must be early. This precocity conditions the best functional and morphological results (8). It consists of exploration and repair of the breach and, possibly, of the associated urethral lesion in order to minimize the deposition of fibrosis in the cavernous spaces and, consequently, to reduce the risk of erectile dysfunction and fractures in the long term (1 ,2,5,7,8).

The long-term after-effects are represented by postoperative penile deviation and erectile dysfunction secondary to reactive fibrosis (1.9). Our patient presented painful erections and fibrosis postoperatively.

Figure 2 The arrow showing penile fracture

4. Conclusion

Penile fracture is a rare urological emergency. Its causes largely depend on geographic distribution. Its diagnosis is essentially clinical. Early surgical repair is associated with a good outcome with minimal complications.

Compliance with ethical standards

Disclosure of conflict of interest

The authors have declared no conflict of interest in relation to this article.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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