CASE REPORT

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Conservative management of penile fracture: a case report

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ABSTRACT

Background: One of the uncommon emergencies in urology is a penile fracture. Due to blunt trauma to the erect penis, the tunica albuginea of one or both corpus cavernosum was disrupted, a rare kind of urologic damage. Corpus spongiosum or urethral rupture and dorsal nerve and vascular injury may also be present. Here, we describe a penile fracture case that was successfully treated conservatively at Zainoel Abidin Hospital.

Case report: A 38-year-old male who had been having sex an hour before and had meatal bleeding, a history of cracking noises, and rapid detumescence presented to the emergency room at Zainoel Abidin Hospital. The patient also had pain when urinating. Physical examination revealed an enlarged penis and meatal hemorrhage but no ecchymosis or eggplant-like appearance. No bladder is full. The Foley catheter was put in. on ultrasonography of the penile. The hematoma was present in the corpus cavernous and spongiosum, and the urethra lumen was uneven. A pendulous urethral rip about 5 mm in size was found during urethroscopy. After 2 days of observation, the erectile function returned without pain or menstrual blood. After two days of conservative therapy, the patient was discharged from the hospital.

Conclusion: Conservative treatment of the penile fracture is still an option based on clinical findings in cases.

Keywords: penile fracture, treatment, conservative.
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INTRODUCTION

The frequency of penile fracture is 1 in 175.000, making it a rare emergency in urology.[1] The tunica albuginea of one or both corpus cavernosums was disrupted due to blunt trauma to the erect penis, making it a rare type of urologic trauma. This definition excludes injuries to a flaccid penis and those to the penile suspensor ligament. Many of them take place during or during a sexual engagement. The most frequent cause occurs when an erected penis is struck against the perineum or symphysis pubis during an intense sexual encounter. Injuries to the dorsal nerve and vessels, urethral or corpus spongiosum, or the penile can all be contributing factors.[2] Here, we describe a penile fracture case that was treated conservatively in Zainoel Abidin Hospital.

CASE PRESENTATION

Mr. S, a 38 years old man, came to Zainoel Abidin Hospital emergency room with meatal bleeding. Previously, he heard a cracking sound during sexual intercourse followed by a rapid detumescence an hour ago. The patient also felt pain that was aggravated by urinating. Physical examination revealed there was swollen penis with meatal bleeding. There was no ecchymosis, eggplant appearance, or full bladder.

A Foley catheter was placed to apply internal pressure and hastening the urethral lumen's healing (Figure 1). The patient was next subjected to penile ultrasonography sonography. Hematomas were present in the corpus cavernous and spongiosum, and the urethra lumen was uneven (Figure 2). Both the tunica albuginea and the corpora cavernous sinistra contained irregularities. A pendulous urethra rip measuring 5 mm was discovered during urethroscopy.

The patient's penile was bandaged throughout hospitalization. Also administered were analgesics, antibiotics, and anti-inflammatory medications. The patient was watched. Erectile Hardness Score (EHS) was previously 1. After being observed for 3 days, the patient's EHS was 3. There was no discomfort or bleeding. The following day, the hospital releases the patient.

Figure 1. Clinical presentation of penile fracture with an inserted foley catheter.

DISCUSSION

Penile fracture is a rare emergency case in urology.[3] Incidence and etiology vary all over the world regarding its diverse culture. Penile fracture during sexual intercourse is more commonly found in Europe and America. While in Middle Eastern countries, the most frequently reported is force bending of the penile shaft, also known as the practice of *taqaandan*. Other causes of penile fractures are masturbation and accidental rolling

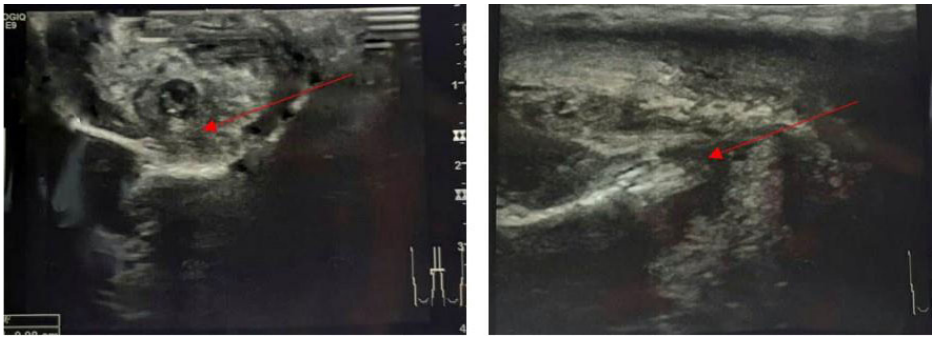

Figure 2. Penile USG (red arrow shows hematoma).

over during erection.[4,5] It is considered a rare urological emergency, rather highly underreported, due to the embarrassing nature of the condition.

When the tunica albuginea of the corpus cavernosum ruptures with the penis in the erect position, this condition is referred to as a penile fracture.[6] The corpus cavernosum is encased in tunica albuginea, a hard, elastic, fibrous, bilayered connective tissue. Its thickness in a flaccid state is between 2.0 and 2.4 mm. Injury is practically impossible at this stage. During an erection, it becomes 0.25 mm thinner and loses its flexibility.[7] It is hence more prone to harm. The base of the penis, close to the penoscrotal, is the most frequently injured area. In 91.24% of cases, the tunica albuginea ruptured unilaterally, and transversely.[3] 10% of penile fractures were observed to affect the urethra.[2]

A history and physical examination are typically used to detect penile fractures. The patient typically describes hearing a crackling sound at the scene of the injury, followed by a quick detumescence.[8] The "eggplant" sign could be brought on by acute edema and penile abnormality. The underlying clot above the fracture site may be felt as a little swelling that can be covered by rolling the penile skin, producing the "rolling sign." Due to the hematoma's mass effect, the penis may shift to the opposite side.[3] Blood at the meatus, difficulty voiding, or gross or microscopic hematuria may be signs of urethral damage, but their absence does not rule it out.[2]

This patient had no ecchymosis, eggplant appearance, or full bladder. Only penile swelling and meatal bleeding were found, which suggests urethral injury. As seen on urethroscopy, there was a tear of the pendulous urethra sized 5 mm. In our patient, we underwent a penile USG examination to find any disruption in tunica albuginea. There were hematomas in the corpus cavernous and spongiosum followed by irregular urethra lumen. Irregularity was also found in tunica albuginea and corpus cavernous sinistra.

In the 1970s, urethral catheterization, ice packs, compression bandages, and medicines were used to treat most individuals with penile fractures. Antibiotics, analgesics, and sedatives were also administered. However, several complications existed that required surgical intervention in approximately 80% of instances.[1,9] Currently, it is advised to seek immediate surgical treatment for the urethral injury and penile injuries. Early surgical intervention results in superior outcomes, a shorter hospital stay, reduced morbidity, and a quicker return to regular sexual activity.[6] The World Health Organization (WHO) recommends that any acute injuries to the tunica albuginea be treated surgically as away.

Erectile dysfunction is among the most dreaded side effects of conservative treatment.[10] In this case study, we discovered that conservative treatment for a patient with a penile fracture also contributes to an increase in EHS. Following injury, EHS was 1. It became 3 after 3 days of monitoring. After being released, there was no discomfort either. Following conservative treatment, another instance similarly reported a positive outcome for a tiny penile fracture. It has been reported to use urethral catheterization, compression bandages, continuous cooling, and a combination of antibacterial, anti-inflammatory, and anti-erectile drugs.[11] We may conclude that penile fractures can still be treated using conservative measures.

CONCLUSION

Diagnosis of penile fracture can be obtained based on history and physical examination. Radiological modality can help to know the severity of the penile fracture. Conservative treatment of the penile fracture is still an option based on clinical findings in cases.

CONSENT FOR PUBLICATION

Written informed consent was obtained from the patient to publish this case report and accompanying images.

COMPETING INTERESTS

The authors declare that they have no competing interests.

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AUTHOR CONTRIBUTIONS

All authors have contributed equally in this manuscript.

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