



Penile Fracture in A Patient With Spinal Cord Injury: A Case Report

Spinal Kord Yaralanmalı Bir Hastada Penil Fraktür: Bir Olgu Sunumu

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Summary

Herein, we present a case of penile fracture (PF) in a patient with spinal cord injury (SCI). A 36-year-old male patient with T12 paraplegia ASIA-B fell during transfer from wheelchair to the bed. He had no complaint during the night. He observed swelling of the penis when he was doing clean intermittent catheterization in the morning. On physical examination, edema and ecchymosis were observed on the penis. Penil ultrasound revealed haematoma in the corpus cavernosum. The diagnosis of PF was established. Because the patient did not accept surgery, conservative treatment was performed. An indwelling catheter and Coban bandage were applied for 10 days. One month later, the appearance of the penis was normal. Patients with SCI might develop PF accidentally. Loss of sensation in SCI might cause delayed diagnosis of PF and increased complication risk. PF and its complications might further deteriorate the sexual or voiding problems that SCI patients already have. *Turk J Phys Med Rehab* 2013;59:268-70.

Key Words: Spinal cord injury, penile fracture, paraplegia, reflexogenic erection

Özet

Bu yazıda, penil fraktür (PF) gelişen spinal kord yaralanmalı (SKY) bir hasta sunulmuştur. Otuz altı yaşında, erkek T12 parapleji ASIA-B hastası tekerlekli sandalyeden yatağa tranferi sırasında düştü. Gece boyunca herhangi bir şikayeti olmadı. Sabah temiz aralıklı kateterizasyon yaparken peniste şişlik farketti. Muayenesinde peniste ödem ve ekimoz izlendi. Penil ultrasonda korpus kavernozumda hematom tespit edildi. PF tanısı konuldu. Hastanın cerrahi tedaviyi kabul etmemesi nedeni ile konservatif tedavi uygulandı. On gün süre ile daimi sonda ve koban bandaj uygulandı. Bir ay sonra penisin görünümü normaldi. SKY'li hastalarda kaza sonucu PF gelişebilir. SKY'li hastalardaki duyu kaybı, PF tanısının gecikmesine ve komplikasyon riskinin artmasına sebep olabilir. PF ve komplikasyonları SKY'li hastalarda mevcut olan işeme ve seksüel problemlerin daha da bozulmasına sebep olabilir. *Türk Fiz Tıp Rehab Derg* 2013;59:268-70.

Anahtar Kelimeler: Spinal kord yaralanması, penil fraktür, parapleji, refleksöjenik ereksiyon

Introduction

Penile fracture (PF) that usually develops after blunt trauma of the erected penis (1-4) is a relatively rare condition characterized by traumatic rupture of the tunica albuginea. The urethra may also be involved. PF manifests with an audible crack accompanied by immediate detumescence and subsequently a rapid swelling, ecchymosis and severe pain. Usually penis deviates to the opposite side of the fracture. Penile ultrasonography, cavernosography and magnetic resonance imaging can help in the diagnosis of PF (2).

To our knowledge, PF in spinal cord injury (SCI) has never been reported. Here, we present a case of PF in a patient with paraplegia.

Case Report

A 36-year-old male patient with T12 paraplegia ASIA-B was admitted to our department. On physical examination, sensation at T12 level was normal and all below levels were anesthetic. Anal sensation was preserved. On motor assessment, L2 level was 4/5 on the right and 2/5 on the left; L3 level was 1/5 bilaterally, and no voluntary movement was obtained below. Voluntary anal contraction was absent. Deep tendon reflexes were hyperactive in the lower limbs. Babinski sign was bilaterally positive. There was grade-1 spasticity in the lower limbs bilaterally according to the Modified Ashworth Scale. Urination was being done with clean intermittent catheterization (CIC). He reported that he had reflexogenic erection (RE).

He reported that during transfer to the bed previous night, he fell between the wheelchair and the bed and then, he hardly accomplished the transfer. He had no complaint during the night. In the morning, during CIC, he observed swelling in his penis. On examination, we detected penil and scrotal swelling and ecchymosis (Figure 1). Penile ultrasound revealed hematoma in the corpus cavernosum and the diagnosis of PF was made (Figure 2). Since the patient did not accept surgery, conservative treatment was performed with indwelling catheter and Coban bandage was applied for 10 days. After 10 days, CIC was started. One month later, the appearance of the penis was normal.

Discussion

PF occurs in the erect state. Thickness of the tunica albuginea is 2 mm in flaccid penis but decreases to 0.25 mm during erection. The reduction in thickness and associated loss of flexibility make tunica albuginea in erect penis vulnerable to fracture. A sudden increase in intracorporeal pressure due to blunt trauma could easily result in rupture (1-4).

Sexual activity and masturbation are the most common causes (2,4). Other possible etiological factors are rolling over while sleeping, falling out of bed, manual bending and being kicked by an animal (1,3,4). In our search of the literature, we could not find any patient with SCI experienced a blunt trauma during transfer from wheelchair to bed while a RE.

In suprasacral lesions RE might be spared. Our case had T12 paraplegia and he had a RE. Transfer in SCI patients is one of the important activities of daily living. Patients always have a

risk of falling. Due to the muscular and balance problems, their control during fall is poor. Thus, transfer while erection might put the patient at the risk for PF. This is particularly important in early rehabilitation since patients are less experienced and knowledgeable in this period. We suggest that patients having RE function should be warned about such a risk.

The diagnosis of PF is mostly based on history and clinical findings. In healthy subjects, establishing the diagnosis of PF is relatively easier. On the other hand, individuals with SCI have loss of sensation under the level of SCI and might not feel pain in case of PF. Thus, the diagnosis may be delayed and the risk for complication may increase. Our patient did not feel pain and he did not realize ecchymosis or swelling until CIC in the morning. This caused 14 hours delay for the diagnosis.

PF is an important clinical condition since a concomitant urethral injury might occur and it may cause deviation of penis, painful erection or erectile dysfunction in long term. We suggest that PF might further deteriorate the sexual or voiding problems that SCI patients already have.

Treatment options for PF are surgical intervention and conservative management. Earlier reports on the management of PF advocated conservative treatment (3). However, current



Figure 1. Penile and scrotal ecchymosis.



Figure 2. Penile ultrasonography revealing haematoma.

literature tends to support immediate surgical intervention because of higher success and lower complication rate (1,2,3). We performed conservative treatment in our patient because he refused surgery.

In conclusion, patients with SCI may develop PF accidentally. Loss of sensation in SCI may cause delayed diagnosis. The patients should be informed and members of the rehabilitation team should be aware of this condition.

Conflict of Interest

Authors reported no conflicts of interest.

References

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