

Case Report

# Fracture of the Penis: An Atypical Case Presentation

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Received: 06/11/2014

Revised: 25/11/2014

Accepted: 03/12/2014

#### ABSTRACT

Fracture of the penis is an uncommon injury. Physicians need to be aware of the urgency in the diagnosis and treatment of penile injury. Due to psychological embarrassment such patient will not present immediately for medical treatment. Most common cause of penile shaft fracture is sexual intercourse and commonly involved with urethral injury. Here, we are presenting a case of penile shaft fracture due to its atypical presentation.

**Case Report:** A 37 year male presented with penile mid shaft fracture while doing sexual intercourse and managed with exploration with repair of corpus cavernosum and retrieval of blood clots.

**Discussion:** Tunica albuginea is one of the strongest fascia in the human body. One reason for the increased risk of penile fracture is that the tunica albuginea stretches and thins significantly during erection. In penile fracture, the normal external appearance is completely obliterated because of significant penile deformity, swelling and ecchymosis. Early surgical treatment has now replaced all conservative treatment with better outcome. So, best treatment for penile mid shaft fracture is emergency surgical therapy.

Key Words: Penile shaft fracture, Penis, Corpus cavernosum, Tunica albuginea, Sexual intercourse.

#### **INTRODUCTION**

Fracture of the penis is an uncommon injury. Emergency department (ED) physicians need to be aware of the urgency in the diagnosis of this condition and in the initiation of treatment as any delay increases the risk of complications. Due to the embarrassment associated with such injuries the patients may hesitate to disclose their complaint and delay seeking medical treatment.

Penile fracture has been reported with sexual intercourse, masturbation, rolling over or falling on to the erect penis. Classically the history is with a sudden snap, pain, detumescence and a hematoma of the penis with deformity

Recently, the possibility of an early diagnosis based on clinical findings has been emphasized, without relying on specialized imaging studies. <sup>[1-3]</sup> Moreover, it has been proposed that the repair could be made on a deferred rather than on an emergency basis, waiting until the time that the size of the hematoma and the inflammation caused by trauma had reduced: <sup>[4]</sup> and using a short incision, as close as possible to the point of

penile fracture, <sup>[5]</sup> rather than a sub-coronal incision with complete penile denudation.

It is a disruption of the tunica albuginea of one or both corpus cavernosum due to blunt trauma to the erect penis. <sup>[2]</sup> It can be accompanied by partial or complete urethral rupture or by injury of the dorsal nerve and vessels. <sup>[6]</sup>

### **PRESENTATION OF CASE**

A 37 year male patient came to casualty in the night with alleged history of trauma over penis while doing intercourse with his wife. Patients presented with pain, swelling and deformity of penis. On examination Swelling over penile region and deformity of the penis was present as shown in figure 1 & 2. No blood at the urethral meatus and patient was passing urine so thus we exclude urethral injury. Patient was posted for exploration and repair on emergency basis. On exploration there were penile mid shaft fracture, generalized penile edema and blood clots in the corpus cavernosum with disruption. Incision taken circum coronal and corpus cavernosum sutured at the site of the fracture with nonabsorbable suture. Blood clots removed and hemostasis achieved. Post operative period was uneventful and patient is doing well.



Figure: 1. Showing clinical photograph of penile shaft fracture with deformity.



Figure: 2. Clinical photograph of penile mid shaft fracture.

## **DISCUSSION**

Penile fracture is a urologic having physiologic emergency and psychologic consequences. Sporadic or low reporting gives the impression of this, being a rare trauma and the reason for this may be that not every urologist reports their clinical experience of condition. The under reporting may be due to the embarrassing nature of the injury and the circumstances in which injury usually occurs.

The patient age ranges from 12 to 82 years with a mean age of mostly fourth decade.<sup>[7]</sup> Fracture typically occurs during vigorous sexual intercourse, when the rigid penis slips out of the vagina and strikes the perineum or pubic bone, sustaining a buckling injury. Although penile fracture has been reported most commonly with sexual intercourse it can happen from any type of blunt trauma affecting the tumescent shaft. This includes masturbation, with or without devices; falling out of bed with an erection; extreme sexual activity, especially during coitus in which the female is on top; forceful correction of a congenital chordee; and even tucking an erect penis into underwear.

Tunica albuginea is one of the strongest fascia in the human body. One reason for the increased risk of penile fracture is that the tunica albuginea stretches and thins significantly during erection: in the flaccid state it is up to 2.4 mm thick; during erection it becomes as thin as 0.25 to 0.5 mm. Bitsch et al. and De Rose et al. proposed that an intracorporal pressure of 1500 mmHg or more during erection can tear the tunica albuginea.<sup>[8,9]</sup>

The classic, "text – book" history of penile fracture is: a sudden cracking sound as the tunica tears followed by pain, rapid detumescence, swelling and discoloration of the penis with or without voiding problems. [10]

In a typical penile fracture, the normal external appearance is completely obliterated because of significant penile deformity, swelling and ecchymosis.<sup>[11,12]</sup> (the so called "egg plant deformity")

Physical examination of the penis can often detect the side of the corporal tear by palpating the overlying hematoma. The "rolling sign" is used to describe a firm, immobile hematoma, which is palpable as the penile skin is rolled over.<sup>[8]</sup>

False fracture has been reported in patients who present with penile swelling and ecchymosis, although they do not describe classic "snap-pop" or rapid detumescence typically associated with fracture. Physical examination may not be adequate for definitive diagnosis in these cases. Another condition that may mimic penile fracture is rupture of the dorsal penile artery or vein during sexual intercourse. <sup>[13]</sup>

Early conservative treatment with applications, cold pressure dressings, catheterization, anti-inflammatory drugs, antibiotics and erection suppressing drugs is now replaced with immediate surgical repair. Surgical repair of penile fracture was first described by Fetter and Gartman in 1936. <sup>[14]</sup> Immediate surgical reconstruction faster recovery, decreased result in morbidity, lower complication rates, and lower incidence of long term penile

curvature. <sup>[7]</sup> Since the repair reduces the complication of fracture it is now the gold standard for treatment of penile fractures. <sup>[2]</sup>

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How to cite this article: Mayank V, Basavraj N, Vaibhav G et. al. Fracture of the penis: an atypical case presentation. Int J Health Sci Res. 2015; 5(1):354-357.

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