

CASE REPORT

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Complex penile fracture after straddle injury: A case report

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ABSTRACT

Introduction: Penile fracture due to staddle injury is an underreported surgical emergency. Fall down in perinium can present with not only scrotum/perinium hematoma but can associated with more complicated injuries such as pelvis fracture, complex penile fracture with urethral injury, corpus cavernosal and spogiosium raptures. These findings lead to worse morbidity in the patient, especially in terms of sexual life and urinary symptoms. If such severe injuries are not properly managed, erectile dysfunction and urethral stricture can happen, leading to more complicated problems.

Case Report: A 23-year-old male presented to the emergency department with complaints of scrotal swelling and pain for three hours due to fall from height on perinium. He had classic signs of a urethral injury and penile fracture.

Conclusion: Penile fracture is not always spared injury and does not always occur during erection, but is sometimes associated with other injuries and in flaccid phase.

Keywords: Erectile dysfunction, Penile fracture, Penile injuries, Staddle injury, Trauma

How to cite this article

Almuhanna AM, Alessawi TH, Alghorairy B, Elkordy HM, Allali AM, Albagshi SS. Complex penile fracture after straddle injury: A case report. J Case Rep Images Urol 2023;8(1):1–4.

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Received: 24 October 2022

Accepted: 16 December 2022

Published: 05 January 2023

Article ID: 100028Z15AA2023

doi: 10.5348/100028Z15AA2023CR

INTRODUCTION

Penile fracture is an uncommon surgical emergency that occurs as a result of trauma to the erect penis mainly during intercourse [1]. The incidence of penile injuries is not reported because many patients do not seek medical care [2]. Penile fracture is a rupture of the tunica albuginea and most often occurs during sexual intercourse, usually after slipping the penis out from vagina and hitting the symphysis pubis [3].

Often patients present with a cracking or popping sound accompanied by immediate detumescence, followed by rapid swelling, ecchymosis, sharp pain, and deformity [4].

Penile fracture can be diagnosed after history taking, physical examination, and imaging. Prompt diagnosis and early surgical repair are essential to ensure a successful outcome and preserve erection [5].

It is uncommon for a penile fracture to occur during flaccid penis and associated with crural fracture, urethral injury, and spongiosa rupture. We report a rare case of a complicated penile fracture due to straddle injury from falling from height.

CASE REPORT

A 23-year-old male presented to the emergency department with complaints of scrotal swelling and pain for three hours due to fall from height on perinium. He had classic signs of a urethral injury and penile fracture. On physical examination he had blood at the meatus, scrotum swelling, butterfly perineal ecchymosis, and he was unable to void (Figure 1). Lab results were within normal values and radiological images done with X-ray confirmed a pelvis fracture (Figure 2), computed tomography (CT) showed right proximal corpora cavernosa and spongiosa ruptures (Figure 3) also there

are no other associated organs injuries such as bowel, renal, ureters, and bladder injuries. Foley catheter was succeeded after gentle single attempt, he underwent scrotal exploration for hematoma evacuation (Figure 4) and right proximal corpora cavernosa and spongiosa repair (Figures 5 and 6). During hospital course post-procedure daily dressing, antibiotics, and Foley kept for three weeks then periurethral retrograde urethrogram (RUG) was done outside our hospital without any extravasation. Currently the patient voids freely.



Figure 1: Patient at the time of ER presentation, showing blood at the meatus, scrotum swelling, and butterfly perineal ecchymosis.



Figure 3: CT shows right proximal corpora cavernosa and spongiosa ruptures.



Figure 4: Scrotal exploration for hematoma evacuation.



Figure 2: X-ray shows pelvis fracture.

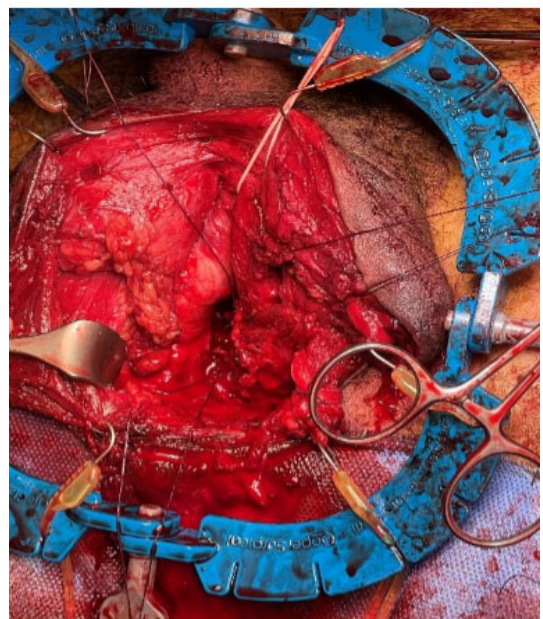


Figure 5: Corpora cavernosa and spongiosum injuries.

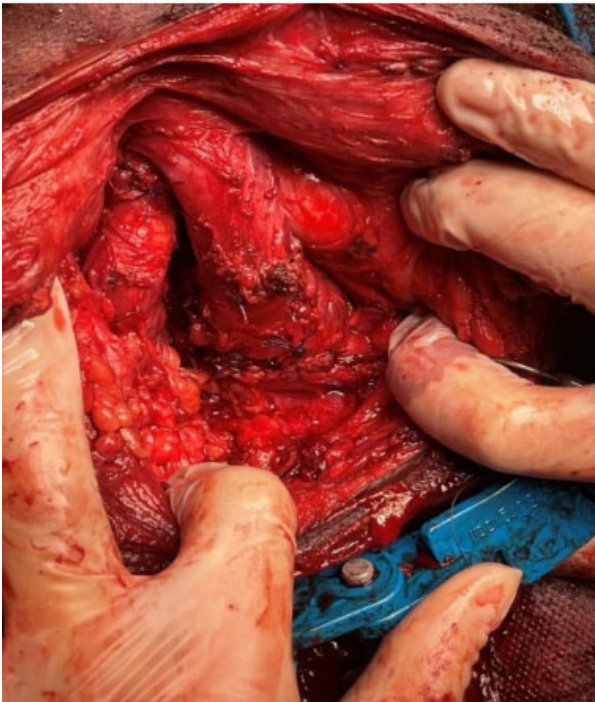


Figure 6: Post-right proximal corpora cavernosa and spongiosa repair.

DISCUSSION

Penile fracture is an underreported emergent urological condition. It is underreported because many patients do not seek medical attention due to embarrassment, shame, or lack of guidance [2]. There are many activities that can result in penile fracture such as severely bending the penis during erection either in sexual intercourse or during self-manipulation to achieve detumescence [3]. The increased risk of penile fractures during tumescence is related to the tunica albuginea stretching forcefully.

There is an extensive review made by Eke for 183 publications on 1331 cases. The median age of patients were 35 years. Clinical picture of penile fracture included sudden penile pain, detumescence, voiding difficulties, penile swelling, and deviation. In addition, other such injuries that are associated with penile fracture are urethral rupture, complications of penile fracture, penile plaque, and erectile dysfunction [1].

The management of penile fracture is surgical repair. However, recent studies have revealed that long-term outcomes of early versus delayed repair in patients without urethral involvement are similar [6, 7]. In our case, surgical repair was offered early in the course of the presentation as the patient has complicated penile fracture associated with urethral injury and scrotal hematoma. Hematoma was evacuated, corpora cavernosa and spongiosa were repaired and Foley catheter was inserted. Recently once such case was published, where a 36-year-old male sustained a staddle injury presented with butterfly ecchymosis, urethral injury, and corpora

cavernosa injury but the attempt to insert the Foley catheter was failed. Retrograde urethrogram was done and showed a bulbar urethral injury. The patient underwent a surgical exploration and repair and suprapubic catheter insertion [8]. Our case was referred to another private hospital for follow-up and the patient voids freely with good erection.

CONCLUSION

Penile fracture is not always a spared injury and does not occur during erection but sometimes it is associated with other injuries and in flaccid phase. In this case, CT imaging was useful in delineating the location and side of the proximal corpora cavernosa and spongiosa injuries and informed surgical planning. Long-term outcomes following surgical correction of proximal corpora injuries are not clear because of infrequency of this type of penial fracture.

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Author Contributions

Ahmed Mousa Almuhanna – Conception of the work, Design of the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Turki H Alessawi – Design of the work, Analysis of data,

Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Basim Alghorairy – Design of the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Hany M Elkordy – Design of the work, Analysis of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Ali M Alali – Conception of the work, Interpretation of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Sara Sameer Albagshi – Acquisition of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of

any part of the work are appropriately investigated and resolved

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None.

Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

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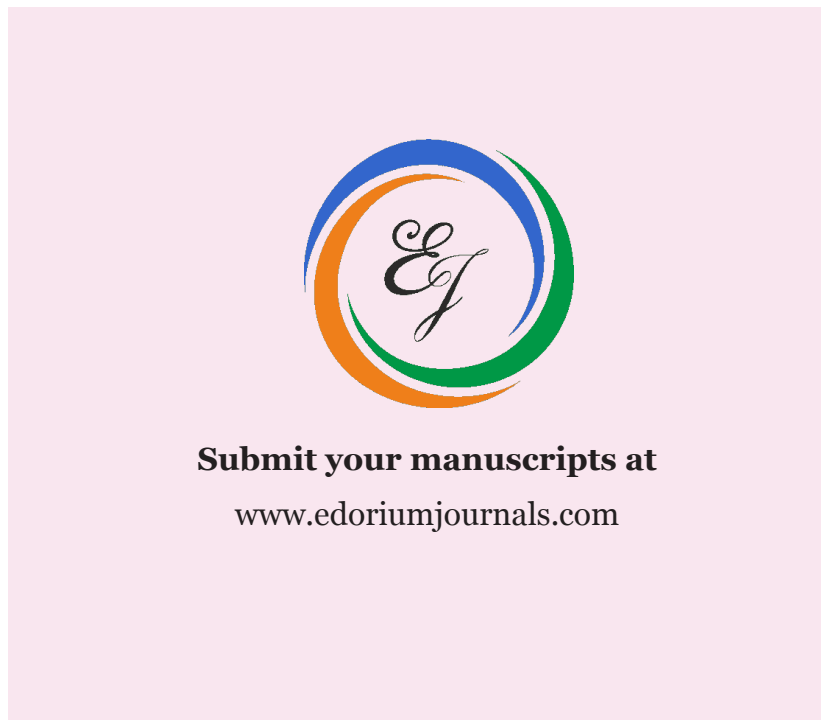
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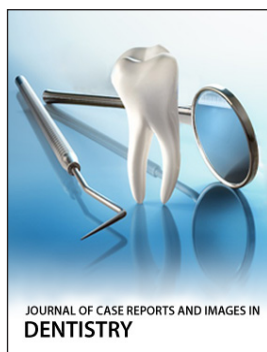
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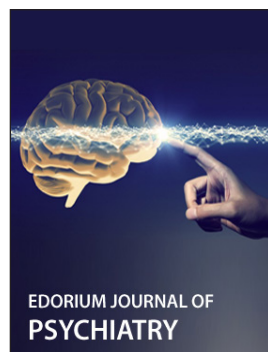
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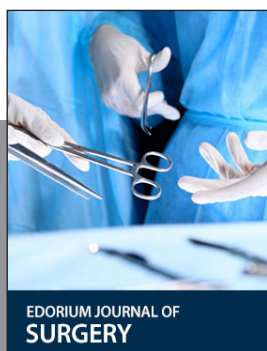
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