Case Report **DOI: 10.56412/gmcp.2023.6.02.161**

Self-inflicted accidental penile fracture: A rare case report in Indian scenario

Harjinder Singh[1], Harbhupinder Singh[1], Savleen Kaur[1],Gagandeep Singh[1]
Samrat Singh[2], Ramandeep Singh[2], Anuj Wasan[1]
[1]Department of Urology, Govt. Medical College, Patiala.
[2]Department of Surgery, Govt. Medical College, Patiala.

Corresponding Author: : Harbhupinder Singh
Associate Professor, Department of Urology, Govt. Medical College, Patiala.
E-mail: sandhuharbhupinder20@gmail.com

Abstract

Penile fracture is a rare injury sustained during sexual intercourse. We report a rare case of 30 years old male who had accidental self-inflicted penile fracture, not related to masturbation or sexual intercourse. Diagnosed promptly on clinical assessment, confirmed on medical imaging and managed surgically. Our case highlights the importance of maintaining a high index of suspicion to diagnose this rare condition even in absence of typical mechanism of injury in Indian scenario in order to ensure that such an injury is not missed.

Key words: Penile fracture, self-inflicted, circum-coronal incision, circumcision

Introduction

Antibiotic Penile fracture is a rare urological emergency and occurs as a result of tear in the tunica albuginea of corpus cavernosum. It results because of forceful bending of erect penis against resistance . Most documented cases involve rupture of one or both of the corpora cavernosa, with a reported incidence of associated urethral injury ranging from 3% to 38%.1 The most common aetiology in western world is injury sustained during sexual intercourse.2 Cases of self-inflicted penile injury is often reported from middle east countries where erect penis is forcibly manipulated to achieve detumescence. It is manifested by cracking or popping sound accompanied by immediate detumescence followed by rapid swelling, widespread ecchymosis, sharp pain and deformity (away from trauma site)3. The diagnosis is made clinically but medical imaging is of great help in confirming diagnosis and surgical planning. Early surgical intervention is a key to successful outcomes. Here we report a rare case of accidental self-inflicted penile fracture not related to sexual intercourse or masturbation and which was managed surgically resulting in good clinical outcome.

Case Report

A 30 yrs old patient presented to emergency department with an accidental penile injury. He was married but away from his home due to work reasons and on that morning he had experienced strong erection and felt embarrassed as he was sharing a room with his co-workers .He was in a drowsy state and inadvertently applied excessive force to his erect penis bending awkwardly in left lateral direction. At that time he experienced a “pop” followed by immediate pain, detumescence and swelling. He denied any history of haematuria. On examination patient was found to have egg plant deformity with normal meatus and testes. Penile ultrasonography was done which revealed a breach in tunica albugenia of right corpora cavernosa with maximum thickness of ~ 9.7mm with hyperechoeic collection alongside the breach side with thickness of 7.7mm and extending for 3.0 cm. Overlying fascia was thickened, however left corpora and corpous spongisioum was normally visualised. Figure 1 (a&b).A MRI was performed to further characterize the injury which revealed ~9.3 mm low signal intensity in penile distil shaft along lateral aspect of right corpus cavernosum suggestive of tear with associated intracavernosal haematoma of about 34.9 mm(CC)x12.3 mm(TR)X20.3 (AP)dimensions appearing heterogenously hyperintense on T2/STIR images and isointense on T1 weighted images. Overlying fascia appeared irregular .The adjacent penile and scrotal skin was oedematousFigure1.



Figure 1(a) Figure1(b) Figure1 (c)

Figure-1(a)Ultrasonography showing Breach in right corpora (b)Ultrasonography showing overlying haematoma.(c) MRI T2/STIR Sequence showing linear discontinuity ~9.3mm lateral aspect of right corpus cavernosum and ~3.5mmx12.3mmx20.3mm intracavernosal haematoma with penile oedema.

Circum-coronal incision made and penis degloved which revealed a 1.25 cm transverse tear on the ventrolateral aspect of middle of right corpora with no urethral injury. The overlying haematoma was evacuated, wound washed with normal saline and repaired with 3-0 prolene continuous inverting sutures. On fifth post operative day patient had strong erection and broke circum-coronal sutures but foreskin could not be retracted because of oedema. Dorsal slit was done and diagnosis confirmed. Circumcision done and patient discharged in satisfactory condition with advise to refrain from sexual activity for three months. On follow up wound was healthy and patient was having normal erectionsFigure2.



Figure 1(a)



Figure1(b)

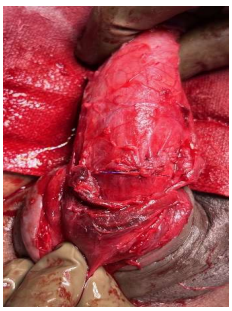


Figure1 (c)



Figure1 (d)



Figure 1(e)



Figure1(f)



Figure1 (g)

Figure 2. (a)Circum-coronal incision and Degloved penis with Haematoma.(b)Right mid shaft Corporal tear(c)Tear sutured with prolene (d)Penile oedema (e) Dorsal slit (f)Ruptured circum-coronal sutures(g)Circumcision and Healed wound

DISCUSSION

The first report of penile fracture is credited to an Arab physician , Abul Kaseem ,in Cordova over 1000 years ago4.Penile fracture is rupture of corpus cavernosum of an erect penis , most of patients report late or it is underreported due to embarrassing nature of the condition. The tunica albugenia has great tensile strength , can withstand pressure of up to 1500mmHg and can stretch from 2.4mm to up to 0.25-0.5mm which when combined with abnormal bending leads to increased intra-cavernosal pressure5. Injury commonly occurs along the ventral aspect of the corporal bodies as this area corresponds to thinning of Bucks fascia as it splits with one lamella continuing to surround the corpora cavernosum and another to invest the corpus spongiosum 6. Diagnosis of most penile fracture cases is made on clinical history and examination in which 90% of symptoms are sudden cracking or snapping sound, immediate pain and significant subcutaneous haematoma 7.Blood discharge from meatus and voiding difficulty should raise suspicion of urethral injury. Ultrasonography aids in diagnosis but Magnetic resonance imaging is a better modality to assess both corporal and crus injuries. Moreover in suspected urethral injury cases retrograde urethrogram or cystoscopy can be performed .Activities that can result in penile fracture include self manipulation to achieve detumescence, sexual intercourse, turning over in bed, a direct blow to the erect penis and interrupting the erection due to a violent bending of penis called "Taqaandan"1,2. This practice is common in Kermanshah, Iran where one study showed 69.1% cases were due to taqaandan and 8.1% cases related to sexual intercourse1. Forceful bending of erect penis to achieve detumescence was the cause of fracture in the present case and it is rare to find in indian population as injury sustained during sexual intercourse is the most common cause. Often the laceration is unilateral though bilateral rupture accounts for 2-10% of cases and associated urethral injury is rare with reported incidence in range of 9-20%8.Urgent surgery is the recognised gold standard approach .A sub-coronal or circumferential is the best described surgical approach allowing good visualization of all the three penile compartments and allowing for exploration and repair of any concomitant urethral injury9.Other approaches described include penoscrotal, inguinoscrotal, lateral and suprapubic incisions depending on the injury site 8. Early surgery provides better outcome, shorter hospital stay and less complication rates but surgical delay up to 7 days after the injury does not adversely affect the result of repair 3.In present case patient had hard uncontrolled early morning erections post operatively inspite of being on benzodiazipines and broke the sub coronal sutures which lead to unresolving distil penile shaft oedema. Subsequently taken for dorsal slit and it was found that all the sutures were broken but wound was healthy. Circumcision was done as circumventing procedure and patient recovered well and discharged in satisfactory condition. On follow up visits besides history, clinical examination, the International Index of Erectile Function(IIEF),Erection Hardness grading scale(EGHS) and Global self assessment of potency (GSAP) should be recorded. In this case penile fracture occurred as a consequence of non-sexual intercourse, non-masturbatory, unintentional ,accidental self-inflicted trauma only to avoid embarrassment from the fellow workers with whom he was sharing the room and perhaps inadvertently applied excessive force in drowsy state to avoid embarrassment.

CONCLUSION

Penile fracture is a rare urological emergency which needs urgent surgical exploration and repair resulting in promising outcome.

Source of Funding-None

CONSENT

Written informed consent for publication of clinical details/clinical images was obtained from the patient.

Conflict of interest-None declared

REFERENCES

1. Zargooshi J. Penile fracture in Kermanshah, Iran: report of 172 cases. J Urol 2000;164:364-6.
2. Fergany AF, Angermeier KW, Montague DK. Review of Cleveland Clinic experience with penile fracture.Urology1999 Aug;54(2):352-355.
3. Kozacioglu Z, Degirmenci T, Arslan M et al:Long - term significance of the number of hours until surgical repair of penile fractures. Urol Int. 2011;87(1):75-9.
4. Taha SA, Sharayah A, Kamal BA et al. Fracture of the penis: surgical management. Int Surg 1988;73:63-64.
5. Bitsch M, Kromann-Andersen B, Schou J, Sjontoft E. The elasticity and the tensile strength of tunica albugenia of the corpora cavernosa.J Urol 1990;143:642-5.
6. Morey AF, Rozanski TA. Genital and lower urinary tract trauma. In : Partin AW, Peters CA editors. Campbell-Walsh Urology. 9th ed, Vol.3 Ch.83. Philadelphia,PA:Saunders;2007.
7. M.Fode,Quantification of surgical delay in penile fractures,Eur.Urol.Focus 4(1)(2018)111-112.
8. Dever DP, Saraf PG, Catanese RP, Feinstein MJ, Davis RS. Penile fracture: Operative management and cavernosography.Urology 1983;22:394-6.
9. Ozcan S, Akpinar E. Diagnosis of penile fracture in primary care: a case report. Can J

Legends

S.No.	Figure 1	
1.	Figure 1(a)	Ultrasonography showing Breach in right corpora.
2.	Figure 1(b)	Ultrasonography showing overlying haematoma.
3.	Figure 1(c)	MRI T2/STIR Seque nce showing linear discontinuity ~9.3mm lateral aspect of right corpus cavernosum and ~3.5mmx12.3mmx20.3mm intracavernosal haematoma with penile oedema.
	Figure2	
1.	Figure2(a)	Circum-coronal incision and Degloved penis with Haematoma.
2.	Figure2(b)	Right mid shaft Corporal tear.
3.	Figure2(c)	Tear sutured with prolene.
4.	Figure2(d)	Penile oedema .
5.	Figure2(e)	Dorsal slit.
6.	Figure2(f)	Ruptured circum-coronal sutures.
7.	Figure2(g)	Circumcision and Healed wound.