

## Case report of penile fracture associated with urethral injury

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**Abstract:** Penile fracture is a rare urological emergency. It is caused by aggressive sexual intercourse, masturbation or trauma against hard object with erect penis. Association of penile fracture with urethral injury is not common. We present the case of a 32years old man having penile fracture with urethral injury.

**Keywords:** Penile fracture, aggressive sexual intercourse, urethral injury.

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### INTRODUCTION

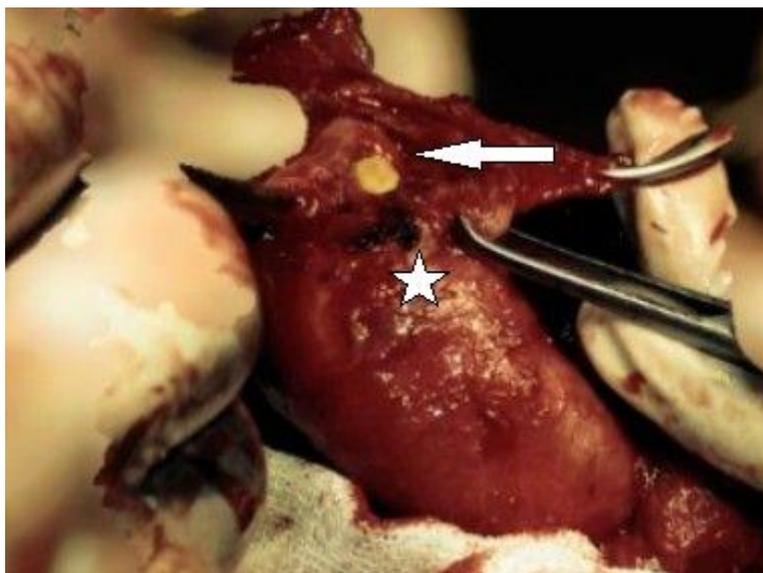
Penile fracture is defined as the traumatic rupture of tunica albuginea of the corpus cavernosum of penis. It is relatively common among Mediterranean muslim population and young adult and caused during sexual intercourse or masturbation. Associated urethral injury is rare. We are reporting a case of penile fracture with urethral injury.

### CASE REPORT

A 32 year old man admitted in our hospital with pain and swelling of penis after sexual intercourse with history of bleeding per urethra for which he was catheterized outside. Physical examination revealed

swollen and ecchymotic penis, deviated to left side with haematoma on right sided distal penile shaft, per urethral catheter in situ.

Emergency operation was done. Penis was degloved by a subcoronal circumcising incision. Large haematoma with defect in tunica albuginea and corpus cavernosum were detected at lateral side of right corpus cavernosum associated with defect in urethra right lateral wall-catheter seen through defect (figure-1). Urethral defect was repaired by interrupted 4-0 vicryl suture in watertight fashion over catheter. Corporal and tunical defect was repaired by interrupted 3-0 PDS suture. Post-operative period was uneventful.



**Fig-1: Operative findings of penile fracture with urethral injury. (arrow showing catheter representing urethral tear, star indicating cavernosal injury)**

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## DISCUSSION

Penile fracture occurs in erected penis as tunica albuginea stretches and thins during this state. The tunica albuginea is a structure of great tensile strength that is able to withstand rupture at pressures up to 1500 mmHg. The tunica albuginea thins markedly during erection, which when combined with abnormal bending leads to excessive intracavernosal pressure and most often a transverse laceration of the proximal shaft[1]. Studies shown that tunica is 2.4 mm thick during flaccid state but only 0.25-0.5 mm thick during erect state[2]. Urethral injury during penile fracture is not uncommon but occur in 1-38% cases[3],[4] and probably great force required for this. Associated urethral injury should be suspected if there is blood at meatus, microscopic or gross hematuria and voiding difficulty[5]. However, these symptoms may be absent in patients with associated urethral injury. Patients usually present early because of nature of injury. History and local findings are suggestive of diagnosis. Retrograde urethrogram is helpful in confirming the presence of a urethral injury. However, urethrography may give false negative results and is not recommended in routine practice. The cause for false negative urethrography is assumed to be the presence of overlying hematoma at the site of injury which masks the defect. If any suspicion of urethral injury retrograde urethrography is the investigation of choice but can be omitted as emergency exploration should be done always and urethral injury detected during this period. Immediate exploration with repair of the corporal tear is the standard and should be done in the presence of a typical history and supportive physical signs. The repair should involve complete evacuation of the hematoma, debridement of the margins, watertight closure of the tunica and spongiosum separately and wrapping of the urethral anastomotic site with a subdartos vascularised flap to prevent fistula formation in case of overlapping suture lines[5]. Regarding the corporal injury, studies have shown that immediate surgical repair is vital and leads to better outcomes and less complication when compared to non operative management[6]. Bennani and colleagues reported complication rates of 40.7% and 8.2% for conservative treatment and surgery, respectively[6].

## CONCLUSION

Although urethral injury is uncommon in penile fracture it should be suspected when patient presented with blood at meatus and urinary retention. It should be managed by emergency exploration and repair with good result.

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