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Case Report

Fracture penis – Is it really an uncommon entity?

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Introduction

Penile fracture occurs typically as a result of buckling injury of the engorged penile corpora due to blunt sexual trauma. Though it is not a very uncommon condition, it is still unusual to manage three cases of penile fracture in a single hospital within a span of 10 days, and we report the same here.

Case report

Three male patients presented to our hospital within a span of 10 days, all of them with the typical history of injury to the erect penis when it slipped out of vagina during intercourse and hit against the female perineum (Table 1). All three developed sudden detumescence, pain, swelling and bluish discoloration of penis after the injury. At the time of presentation, all of them had passed urine after the injury and had no

gross or microscopic hematuria. On examination all patients had penile hematoma with the typical “eggplant deformity” (Fig. 1). There was no blood at urethral meatus. Case No. 1 also had suprapubic ecchymosis (Fig. 2).

The diagnosis was made clinically as penile fracture and all three patients underwent immediate surgical exploration. Subcoronal incision was given on the penis and the penile skin was degloved. Case No. 1 had hematoma along with tear of the Buck’s fascia, the corpora cavernosa and tunica albuginea on the venterolateral aspect on right side (Fig. 3). Case No. 2 had hematoma on the dorsal aspect and tear of the corpora cavernosa and tunica albuginea on the venterolateral aspect on left side. The hematoma was evacuated and the tears were repaired in both the cases with 3-0 absorbable suture (Fig. 4). Case No. 3 had only division of one of the tributaries of dorsal vein of penis which was ligated. Postoperative recovery was uneventful in all patients and they were discharged with advice to avoid sexual intercourse and masturbation for one month.

Discussion

Penile fracture is the disruption of the tunica albuginea with rupture of the corpus cavernosum. It typically occurs during vigorous sexual intercourse, when the rigid penis slips out of the vagina and strikes the perineum or pubic bone, producing a buckling injury.¹ The outer longitudinal layer of the tunica albuginea determines the strength and thickness of the tunica. It is thinnest ventrolaterally which explains the finding that two of our patients had sustained tear on the venterolateral aspect. The tensile strength of the tunica albuginea is very high, resisting rupture until intracavernous pressures rise to more than 1500 mm Hg.² The tunical tear is usually transverse, unilateral, 1–2 cm in

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Table 1 – Profile of patients who presented with fracture penis.

Case No.	Age of the patient	Date of injury	Date of presentation	Duration between injury and intervention (h)
1	77 years	05 Jul 2013	08 Jul 2013	66
2	63 years	18 Jul 2013	18 Jul 2013	15
3	27 years	19 Jul 2013	19 Jul 2013	20

length, and most fractures are distal to the suspensory ligament.

The first case of a penile fracture was described in the literature in 1924.³ Though it is mostly reported with sexual intercourse, it has also been described with masturbation and rolling over in bed onto the erect penis. In the Middle East, self-inflicted fractures predominate; the erect penis is forcibly bent during masturbation or as a means to achieve rapid detumescence, the practice of “*Taghaandan*”.⁴ A review article in 2002 revealed that there were 1642 cases of penile fracture recorded till then out of which 56% originated from the Mediterranean and Middle East region.⁵ The patients were mostly in their fourth decade. The age of our first patient is 77 years which is one of the eldest reported till date.⁴

Penile fracture is mostly a clinical diagnosis due to its typical presentation. Patients commonly report hearing a “pop” or cracking sound at the moment of injury followed by rapid detumescence, acute swelling, pain and penile deformity. The patients are often reluctant, from shame, in coming forward with their history. The gross appearance is described as an “eggplant deformity,” which refers to the combination of localized penile swelling, discoloration and deviation toward the opposite side of the fracture.⁶ If the Buck fascia is intact, the penile hematoma remains contained between the skin and tunica, whereas if it is disrupted the hematoma can extend to the scrotum, perineum, and suprapubic regions. Case No. 1 in our report had rupture of Buck’s fascia and suprapubic ecchymosis. Voiding symptoms such as dysuria, urinary retention, gross hematuria and presence of blood at urethral meatus are indicative of a potential urethral injury. The incidence of urethral injury is significantly higher in the United States and Europe (20%) than in Asia, the Middle East,

Fig. 2 – Fracture penis – suprapubic ecchymosis. **Fig. 1 – Fracture penis – eggplant deformity.** **Fig. 3 – Longitudinal tear on right side of ventrolateral aspect of corpora cavernosa.**

Fig. 4 – Tear repaired with 3-0 absorbable interrupted sutures.

and the Mediterranean region (3%), probably attributable to the different etiology—intercourse trauma versus self-inflicted injury.^{4–6}

Urine analysis for microscopic hematuria can be indicative of a non-apparent urethral injury. Though retrograde urethrography is useful in suspected urethral injuries, it is time consuming and inaccurate. Hence intraoperative flexible cystoscopy is performed in such cases. Ultrasonography is cheap and non-invasive but has high false-negative results. Magnetic resonance imaging is highly accurate in defining tunical tears, but is expensive, time consuming and of limited availability.

Conservative management in the form of ice packs, Foley catheterization, and anti-inflammatory medicines, initially regarded as the standard of care, was associated with long-term complication rates of approximately 30%.⁷ The complications included painful erections, severe penile angulation, arteriovenous fistulas, infected hematomas, abscess formation and impotence.⁷ Currently immediate surgical exploration and repair is recommended, which involves a subcoronal degloving incision, providing exposure to all three penile compartments. The tunical defect is closed with 2-0 or 3-0 interrupted absorbable sutures. Rupture of the dorsal vein and artery may mimic penile fracture. Dorsal vein ruptures should be ligated when encountered intraoperatively, but can be managed conservatively if diagnosed pre-operatively using cavernosography.⁸ Case No. 3 in our report was found to have only a ruptured tributary of dorsal vein intraoperatively, but the clinical picture was just like a fractured penis and hence

operated. Cavernosography was not done because it is discouraged in the evaluation of a suspected penile fracture as it is time consuming, may not be useful and unfamiliar to most urologists and radiologists.¹ Partial urethral injuries should be oversewn with fine absorbable suture over a urethral catheter. Complete urethral injuries can be managed with primary reanastomosis, graft interposition, or stenting over a urethral catheter. Immediate repair results in penile curvature in less than 5% of patients.⁹ Those undergoing repair within 8 h of injury had significantly better long-term results than those having surgery 36 h after the injury, in a particular study.¹⁰

To conclude, penile fracture is a commonly missed and under-reported condition. The diagnosis is more often clinical and prompt surgical exploration is the treatment of choice.

Conflicts of interest

All authors have none to declare.

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