



Genitourinary Injuries: Complete Urethral Injury Associated to Penile Fracture (Surgical Management) and Scrotum Injury by Dog Bitten

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Abstract

Genital injuries are a heterogeneous group of injuries, including blunt injuries, penetrating, amputation, bite, burn, or avulsion injuries to the penis, scrotum, or testicles in males and the vulva in females. One of the most commonly encountered injuries are penile fracture (most commonly during sexual intercourse) while bite injuries of the scrotum are rare. We present both clinical cases with illustrative pictures, medical and surgical management if required and outcomes.

Keywords: Urethral reconstruction; Genital trauma; Surgery; Urethroplasty

Genitourinary Injuries

Complete urethral injury associated to penile fracture (surgical management)

Vigorous sexual intercourse was found to be the most common cause of penile fracture. Urethral injury, although rare, may be associated with substantial long-term morbidity such as fistulas and strictures.

Immediate surgical approach is recommended by most authors. Immediate surgical intervention has low morbidity, short hospital stay, rapid functional recovery, and no serious long-term sequelae (erectile dysfunction, painful erection, penile deviation or palpable scarring - Scar formation was highly associated with non-absorbable sutures [1].

The possibility of urethral injury must always be kept in mind while evaluating such patients. For some authors contrast studies or endoscopic evaluation may prove helpful [2] while others authors conclude that the management of a penile fracture should not include any further investigation than surgical exploration [3].

So basically, a penis fracture diagnosis is mostly clinical; complementary tests, such as ultrasound, are helpful but not definitive. Surgical treatment consists of an incision that allows adequate exposure of the corpora cavernosum and urethra to repair the suspected lesions found upon diagnosis [4].

Surgical repair has a good functional outcome and low complication rates in the long term. Immediate or delay surgery has been often discussed.

Although Kozacioglu et al. published that neither serious deformities nor erectile dysfunction occur as a consequence of a delay in surgery (in patients with no urethral involvement) [5], an immediate surgical approach is strongly recommended.

52 years old man presented at emergency room with a clinical suspicious of penile fracture after sexual intercourse. He presented with a penile and scrotal haematoma, as well as urethrorragia.

Surgical approach was immediately performed with a subcoronal incision, showing unilateral rupture of the corpus cavernosum with concomitant urethral disruption.

Accessory suprapenis incision was required in order to exposure urethral defect. The buck fascial defect was sutured and an end to end urethral anastomosis was performed.

The early and late periods after surgery were uneventful. After six months of surgery erectile function was unaffected either urethral strictures (Figures 1 and 2).

Scrotum injury by dog bitten

Male genitalia are relatively exposed and vulnerable to trauma due to its external location.

Although exposed and dependent in nature, the mobility of the scrotum often prevents it and its contents from severe injury [6].

Etiology is quite widely. In a 30 year single institution retrospective review of 110 patients with penetrating external genital injuries, authors found that gun shots account for 55% of penetrating scrotal trauma, with stab wounds/lacerations (42%), and bites (3%) accounting for the rest [7].

A dog bite to the scrotum is a relatively uncommon clinical problem. A smaller report documented adult scrotal bites in four men in an 8-year period, none of whom had testicular, epididymal or cord trauma [8].

Management of wound includes thorough irrigation and debridement of the wound, broad spectrum antibiotics, adding prophylaxis against rabies and tetanus [9].

Broad spectrum antibiotics are extremely active against the majority of pathogens isolated from bite wound, so these are the first line broad spectrum antibiotic till culture reports are available [10].

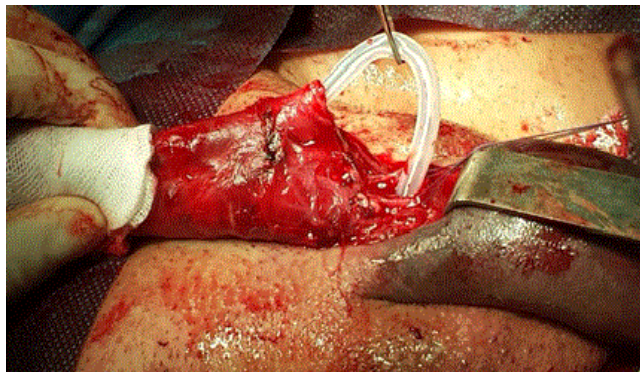


Figure 1: Shows unilateral rupture of the corpus cavernosum with concomitant urethral disruption.

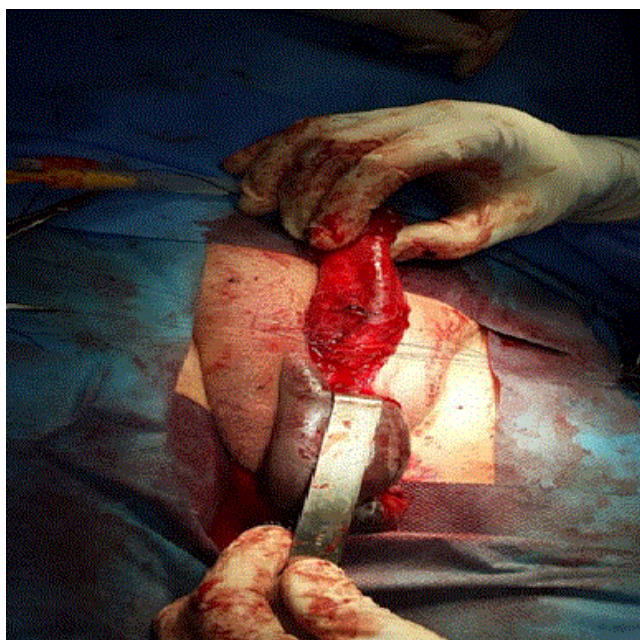


Figure 2: Shows end to end anastomosis and corpus cavernosum reconstructed.

Tetanus prophylaxis is done if previous immunization is longer than 5 years before injury. Passive immunization with human tetanus immunoglobulin is added for the patients who had not been previously immunized or where the last known immunization was received more than 10 years before the injury.

On examination of this patient, there were several wounds approximately 1 cm wide each one, testes and epididymis were

undamaged. The wounds were thoroughly irrigated, and antibiotics (oral co-amoxiclav) and tetanus prophylaxis were administered (Figure 3).



Figure 3: Shows several bite wounds in scrotum and penis.

References

1. Ibrahim el-HI, el-Tholoth HS, Mohsen T, Hekal IA, el-Assmy A (2010) Penile fracture: Long term outcome of immediate surgical intervention. *Urology* 75: 108-111.
2. Garg M, Goel A, Dalela D, Patil S (2013) Penile fracture with urethral injury: evaluation by contrast imaging. *BMJ Case reports* 2013.
3. Gontero P, Muir GH, Frea B (2003) Pathological findings of penile fracture and their surgical management. *Urol Int* 71: 77-82.
4. Moreno Sierra J, Garde Garcia H, Fernandez Perez C, Galante Romo I, Chavez Roa C, et al. (2011) Surgical repair and analysis of penile fracture complications. *Urol Int* 86: 439-443.
5. Kozacioglu Z, Degirmenci T, Arslan M, Yuksel MB, Gunlusoy B, et al. (2011) Long-term significance of the number of hours until surgical repair of penile fractures. *Urol Int* 87:75-79.
6. McGeedy J, Breyer B (2013) Current epidemiology of genitourinary Trauma. *Urol Clin North Am* 40: 323-334.
7. Phonsombat S, Master VA, McAninch JW (2008) Penetrating external genital trauma: A 30-year single institution experience. *J Urol* 180: 192-195.
8. Cummings JM, Boullier JA (2000) Scrotal dog bites. *J Urol* 164: 57-58.
9. Bothra R, Bhat A, Saxena G, Chaudhary G, Narang V (2011) Dog bites injuries of genitalia in male infant and children. *Urol Ann* 3: 167-169.
10. Gomes CM, Ribeiro Filho L, Giron AM, Mitre AI, Figueira ER, et al. (2001) Genital trauma due to animal bites. *J Urol* 165: 80-83.