



## CASE REPORT

# Trauma of Male External Genitalia Caused by A Domestic Dog Biting: A Rare Case Reporting with the Review of the Literature

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## Abstract

External genital trauma due to animals biting is uncommon but it's usually a serious condition counting on the risk of bacterial infection and rabies. The clinical results are usually based on the severity, the duration of post-traumatic consultation and the attitude of management. We are reporting on a 20-years-old adult with no past medical history a victim of severe external genital trauma caused by a domestic dog biting. The clinical presentation was marked by anoozing tendercrotum and urethrorrhagia and the diagnosis were simply made by an urgent scrotal ultrasound showing an abnormal left testicule with a ruptured tunica albuginea and extrusion of testicular content classified to be grade 3 according to the AAST classification for which an urgent surgical decision was taken with an informed signed consent by the family for possible events of orchiectomy.

## Keywords

Bites, Trauma, Scrotum, Testis, Urethrorrhagia

## Introduction

Trauma of the male external genital organs by dogs biting is rare with only few cases have been reported in the literature [1] meanwhile people have commonly been savaged by dogs, but genital injuries are rarely reported and most of these types of injuries are being reported in children. In the United States bite wounds account for approximately 1% of all emergency visits, of which 60% to 70% were seen in children [2].

## Case Presentation

This is about a 20-year-old adult without any known

past medical history, was a victim of his neighbor's domestic dog, consulting at our emergency department directly after the incident. The physical examination of the external genitalia showed an oozing painful swollen scrotum and urethrorrhagia (Figure 1).

The result of the clinical examination was normal. An urgent scrotal ultrasound was requested showing a ruptured left testicle classified as grade 3 (Figure 2).

An emergency surgical exploration of the scrotum showing a ruptured tunica albuginea of the left testicle with bursting of less than 50% of necrotic testicular contents (Figure 3).

Our surgical attitude was to excise the necrotic part of the testicular pulpe, suturing of the ruptured tunica albuginea (Figure 4) and careful dissection and inspection of the bulbo-penile urethra after genital urethral catheterisation looking for possible urethral injuries (Figure 5).

The inspection of the urethra was normal and urethral contusion or abrasion of urethral mucosa was thought to be the most likely cause of urethrorrhagia.

Passive intramuscular tetanus antitoxin was given to the patient with some other intravenous antibiotics because of the high risk of tetanus and bacterial wound infections. The dog was tested for rabies and proved to be negative, hence the rabies vaccine shots were avoided.

The urinary catheter was kept in place for 10 days



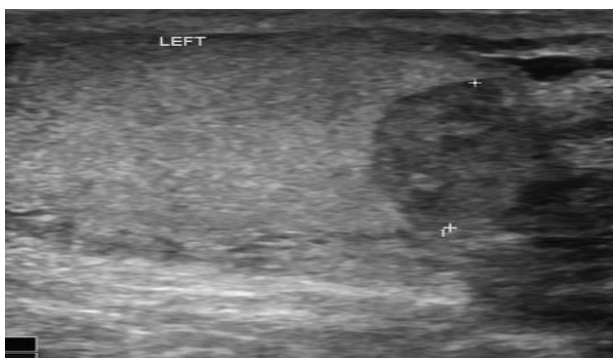
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**Figure 1:** Oozing swollen scrotum with urethrorrhagia.



**Figure 2:** Ruptured left testicle.



**Figure 3:** Ruptured tunica albuginea with necrotic contents.

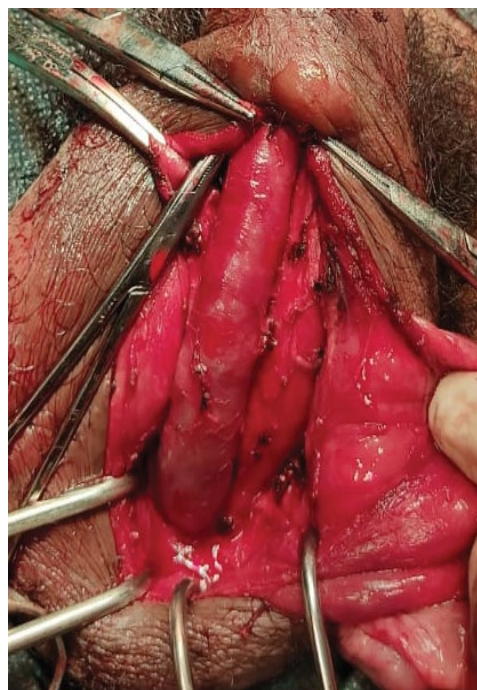
after surgery and the patient had a normal spontaneous urination after removal of the catheter. A retrograde urethrocytography was requested to be carried out later to exclude any possible urethral strictures.

## Discussion

In general, animal bites are a common cause of emergency consultation, and children are the most common victims [3,4]. In the United States bites account for 800,000 injuries yearly requiring medical attention and it is estimated that 1 of 2 Americans is bitten by an animal or person in their lifetime and despite these rates genital trauma due to animal bite is rare [4,5]. The primary victims of dog bites are children less than 9-years of age and the offending animals are usually not strays but rather neighborhood or family pets and injuries to



**Figure 4:** Suturing of the ruptured tunica albuginea.



**Figure 5:** Dissection and inspection of the bulbo-penile urethra after genital urethral catheterisation.

the external genitalia are rare [6]. In our patient, the bite was direct on the scrotum leading to partial testicular loss and urethral contusion with urethrorrhagia which had led us to think of deep urethral involvement, but the surgical dissection and careful inspection of the bulbo-penile urethra concluded to be normal.

## Conclusion

External genital trauma caused by animals biting is rare but remains to be potentially serious due to the risk of bacterial infection and rabies. The clinical results are usually linked to the severity of the bite, the post

biting time and the altitude of management. Surgical exploration with an attentive wound caring by wound debridement and irrigation and prophylactic antibiotic therapy as well as anti-tetanus immunoglobulin and anti-rabies are the most respected rules in the literature.

### Competing Interests

Authors have declared that no competing interests exist.

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