

CASE REPORT

Open External Genitalia Trauma by Fall from a Tree in a Young Boy

YONLI Diataga Sylvestre¹, LOMPO Yemboado Dieudonné¹, KAMBOU S Yélé Pierre¹, TOUHOGOBOU Aboul-Azize¹, KABORE Fasnéwindé Aristide²

¹ Regional Hospital Center of Ziniare, Burkina Faso.

² Urology Department of University Teaching Hospital Yalgado Ouedraogo.

Received: 22 June 2026 Accepted: 08 July 2026 Published: 22 July 2026

Corresponding Author: YONLI Diataga Sylvestre, Regional Hospital Center of Ziniare.06 BP 9230 Ouagadougou 06, Burkina Faso.

Abstract

Introduction: Injuries to the external genitalia are the most frequent type of genitourinary trauma.

Case Presentation: We present a case of open trauma to the external genitalia in a 10-year-old boy who fell from a tree. He underwent surgical management consisting of scrotal reconstruction. The postoperative course was uneventful.

Conclusion: Early surgical intervention leads to good healing in most cases.

Keywords: Open, Externa Genitalia Trauma, Young Boy.

1. Introduction

Injuries to the external genitalia are a type of genitourinary trauma. They can be closed or open. Open injuries account for 20% of genitourinary trauma. Of these, 40 to 60% involve the external genitalia [1,2]. These injuries are most often caused by falls, road traffic accidents, sports accidents, physical assaults, sexual abuse, gunshot or stab wounds [3,4]. The case we present is an open injury caused by a fall from a tree, resulting in friction injuries to the external genitalia. The aim is to describe a rare mechanism of injury to the external genitalia that is not specifically described in the literature.

2. Case Presentation

A 10-year-old boy, a student with no known medical history, was referred to our department from a peripheral health center for open trauma to the external genitalia. The accident occurred approximately 10 hours earlier. The child had climbed a tree to pick fruit. While attempting to climb down, he lost his

balance and, to avoid falling, grabbed onto the tree. It was while sliding down the tree trunk to the ground that the injuries to the external genitalia occurred. On admission, he was in good general condition, and his hemodynamic parameters were stable. He complained of intense pain in the external genitalia, the perineal region, and the right inguinal region. Physical examination revealed a hemorrhagic wound with scrotal tissue damage extending to the right inguinal region and the perineum. This exposed the right testicle and part of the left testicle. There was a loss of scrotal skin. Examination of the other organ systems was normal. Laboratory tests were unremarkable.

Ultrasound of the urinary tract showed a left testicular contusion without damage to the tunica albuginea. Pelvic X-ray showed no bone lesions.

The child was immediately taken to the operating room for assessment and repair of the injuries. Examination under general anesthesia allowed for a more thorough examination of the lesions. The right testicle was exposed but appeared healthy. In contrast, the left

Citation: YONLI Diataga Sylvestre, LOMPO Yemboado Dieudonné, KAMBOU S Yélé Pierre, *et al.* Open External Genitalia Trauma by Fall from a Tree in a Young Boy. Archives of Urology. 2026; 8(2):01-03.

©The Author(s). 2026. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

testicle showed signs of inflammation. The penis was unaffected except for edema on its anterior surface (Figure 1). There were no lesions of the corpora cavernosa, corpus spongiosum, or urethra. Our patient underwent debridement followed by meticulous scrotal reconstruction. The child was discharged from the hospital on the seventh postoperative day with

continued regular dressing changes. The postoperative course was uneventful.

By the 45th postoperative day, the wound was completely healed (Figure 2). He reported no pain. There were no symptoms of lower urinary tract symptoms. Examination of the external genitalia was normal.



Figure 1. Open external genitalia trauma showing right testicle and a part of left testicle



Figure 2. Postoperative day 45 showing the wound completely healed

3. Discussion

3.1 Frequency

The case we present is a genital injury in a 10-year-old boy. Genital trauma is the most frequent injury to the urogenital system. According to the EAU Guideline, of all urological injuries, 33-66% involve the external genitalia [3]. Considering the age group, children are more affected than adults. In some series, injuries to the external genitalia accounted for more than half of the accidents. Of 394,542 people sustained genitourinary injuries and presented to emergency departments in the United States between 2002 and 2010, 64% were children [5]. They appear to be more frequent in boys than in girls in adulthood between 15 and 40 years of age, due not only to anatomical differences but also to boys' greater risk-taking behavior. This is due to the increased frequency of road traffic accidents and

increased participation in physical sports, war, and violent crime [3]. However, some studies reveal a female predominance [6]. Gulcin et al., in a study of 22 children admitted for external genital trauma following falls, found a female predominance [7].

3.2 The mechanism of trauma and injuries

The causes of these traumas are varied. The most prevalent causes of this type of injury are sports accidents and falls at home. This is caused mainly by blunt injuries from falls, car accidents, sports injuries, physical assault, animal bites, and sexual abuse, or penetrating injuries, usually due to falls onto sharp objects or from gunshot or knife wounds [3, 5]. In our case, none of these causes were implicated. It is a particular type of mechanism. The patient, from the top of the tree, lost his balance and, in order to avoid falling, grabbed onto the tree. It was while sliding

down the tree trunk to the ground that the injuries to the genital organs occurred. As for the resulting injuries, our patient sustained a penetrating wound with a tear of the scrotum extending to the right inguinal region and the perineum. Regarding the testicular injuries, the right testicle was exposed, and the left testicle was contused. The nature of the injuries depended on the type of wound. In about 3% of children seen at pediatric hospital trauma centers, there is significant involvement of the genitourinary tract [4].

3.3 Treatment and Prognosis

Our patient underwent debridement followed by scrotal reconstruction. Penetrating scrotal injuries require surgical exploration with conservative debridement of non-viable tissue. Depending on the extent of the injury, primary reconstruction of the testis and scrotum can usually be performed. [3]. In these patients, the prognosis is generally good. In more extensive lesions, flap reconstruction may be necessary. Shi Gao et al. reported a case of severe trauma with scrotal tissue necrosis in a pediatric patient. Scrotal reconstruction using an anterolateral thigh flap was performed [8]. There are extreme cases of trauma to the external genitalia with emasculation; hormonal supplementation is indicated in these cases [9].

4. Conclusion

Trauma to the external genitalia is the most frequent type of genitourinary trauma. Regarding the mechanism of injury, the case we presented is unique. Depending on the severity of the injuries, surgical intervention may be necessary, as in our case. The prognosis was good in our case due to the rapid and effective management. Severe cases often require complex management involving surgery, hormone therapy, and psychotherapy.

5. References

1. Schultheiss D, Meschi MR, Hagemann J et al. Congenital and acquired penile deviation treated with the essed plication method. *Eur Urol.* 2000; 38(2): 167-171.
2. Kozar E, Rosenbloom E, Goldman D et al. Pain in infants who are younger than 2 months during suprapubic aspiration and transurethral bladder catheterization: a randomized, controlled study. *Pediatrics.* 2006; 118 (1): e51-e56.
3. Kitrey NDN, Djakovic FE, Kuehhas N et al. EAU Guidelines. Urological Trauma Edn. EAU Annual Congress Copenhagen 2018.
4. Radmayr C, Bogaert G, Dogan HS et al. EAU guidelines on paediatric urology. In: EAU Guidelines, 2019.
5. Tasian GE, Bagga HS, Fisher PB et al. Pediatric genitourinary injuries in the United States from 2002 to 2010. *J urol.* 2013; 189 (1): 288-294.
6. Mohr AM, Pham AM, Lavery RF et al. Management of trauma to the male external genitalia: the usefulness of American Association for the Surgery of Trauma organ injury scales. *J urol.* 2003; 170 (6): 2311-2315.
7. Gulcin N, Erkoc BM, Gul C et al. External genital injuries in children presenting due to falls. *Turk. J. Pediatr. Surg.* 2025; 39 (1): 012-016.
8. Gao S, Chen H, et Zhao G. Scrotal reconstruction using anterolateral thigh flap in a pediatric patient: A case report. *Chin. J. Traumatol.* 2025.
9. Tembely S, Dieth AG, Kouamé YGS et al. Trauma of the external genital in children: emasculation, a paediatric case report. *Trauma Case Rep.* 2019 ;21: 100201.