

Severe Trauma to the External Genitalia

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Received: August 25, 2023

Published: January 16, 2024

Abstract

Serious trauma to the external genitalia is uncommon and occurs mostly in the young population. These traumas are potentially serious because of the urinary and sexual complications that they can cause, not to mention the psychological damage. The treatment depends on the lesion assessment, requiring a multidisciplinary surgical management. The degree of severity of the lesions and the early management of these patients will determine the functional results.

We report a case of severe external genitalia trauma in a polytrauma patient.

Keywords: Serious trauma; External genitalia; Younger population; Road accidents; Surgical treatment

Introduction

Trauma to the external genitalia is relatively rare among traumatic pathologies in urology, occupying the third position after trauma to the kidney and bladder, at a level close to trauma to the urethra. Trauma to the scrotum represents 60% of trauma to the external genitalia, followed by trauma to the penis (30%). Young adults are particularly at risk. The age of predilection is between 20 and 30 years for trauma to the bursa and around 40 years for trauma to the penis. This age group explains the serious long-term repercussions of this type of trauma [1-4].

We report a case of severe trauma to the external genitalia following a traffic accident in a 30-year-old male.

Case Presentation

30-year-old patient with no particular pathological history, victim of a public road accident (motorcyclist hit by a truck) resulting in polytrauma.

On admission to the surgical emergency room, the clinical examination noted a conscious patient in poor general condition, with a notion of hemodynamic instability for which the patient was referred to the intensive care unit, He presented a right basi-thoracic ecchymosis with bleeding wounds especially in the left iliac fossa associated with a severe trauma of the external genitalia (left testicle not found with bleeding in the spermatic cord, right testicle in place) and extensive loss of substance of the left perineal and inguinal region (**Figure 1**).

After hemodynamic stabilization of the patient, he benefited from a whole-body CT scan showing rib fractures at the level of the 9th 10th and 11th right ribs with the appearance of parenchymal contusions.

At the abdominal level, we noted the presence of a renal trauma



Figure 1: Severe trauma to the external genitalia with extensive loss of substance.

with lesion of the superior excretory tracts, classified at least stage 4 of the AAST.

The bone window showed staged vertebral fractures at L1, L2, L3, and L4.

After stabilization of these bone lesions (orthopedic treatment) and given the severity of the perineal and external genitalia lesions, a surgical exploration was necessary in the operating room, which revealed a wound at the level of the superficial sutured femoral vein, with the absence of the left testicle and



Figure 2: Results after inguino-scrotal plasty.

evidence of bleeding from the spermatic cord, which was ligated and sectioned to stop the bleeding.

After control of the vascular lesions, reconstructive surgery of the left inguinal region and external genitalia was performed to cover the extensive loss of substance (**Figure 2**).

For renal trauma, the patient received a right JJ catheter rise.

The evolution was favorable for which the patient was transferred to the service of urology, and put under close medical and biological monitoring highlighting skin fistulas treated medically by antibiotic therapy.

Discussion

There are few studies in the literature concerning this type of trauma due to the rarity within the traumatic pathology where they are always described within the framework of polytrauma whose management concerned essentially the traumas putting at risk the vital prognosis.

In the literature, the incidence varies according to the studies, Dekou et al [5] reported a prevalence of 0.2% in a series of 16425 trauma patients. The most frequent cause was public road accidents, followed by sports accidents [5].

Two-wheeled motorized vehicles are the groups most often exposed to trauma to the external genitalia in the case of road accidents, the impacts occur most often at high kinetic energy, given the high rate of external genital injuries in this category of users (two thirds of injuries are urological) [6].

In our case, the trauma was caused by a road accident involving a motorcyclist with a high kinetic energy impact (motorcyclist hit by a truck causing a polytrauma with the notion of hemodynamic instability).

Young adults are the population particularly exposed, Dekou et al [5] showed a mean age of 27 years, while Lakmichi et al [7] reported an average age of 25 years, which is close to our patient's age of 30 years. The clinical presentation was variable depending on the mechanism causing this trauma, ranging from simple abrasion to debris and emasculation [8].

The initial clinical examination must be meticulous in order to assess the lesion, which determines the surgical treatment. In this type of trauma, surgical management is a challenge for the operating team, which could pose serious difficulties for urologists faced with infrequent situations, especially in opting for

conservative treatment as much as possible [7,9]. The medical treatment is an essential part of the management, especially the analgesic treatments that allow the patient to be relieved and for a good clinical examination, without forgetting the antibiotic therapy that prevents infection, the presence of which makes any perineal plastic surgery difficult [7-9]. For trauma to the bursa, surgical treatment can range from conservative treatment consisting of evacuation of the hematoma to orchectomy [7,9]. While the surgical treatment of the penis is based on plastic surgery made of phyllo in case of severe trauma, especially emasculation [8].

The diagnosis of trauma to the external genitalia is made in the majority of cases by a clinical examination, complementary examinations are mainly carried out in the context of polytrauma to eliminate a lesion that may be life-threatening and to evaluate the seriousness of other lesions, as well as in rare cases of minimal trauma to the external genitalia with a doubtful diagnosis, a scrotal ultrasound scan may be carried out to orientate management, either an indication for surgical exploration or to opt for medical treatment with close monitoring [9].

These lesions are not very frequent but serious because of the complications affecting the sexuality and fertility of the patients, which imposes a support and a psychological care of this type of patients especially because of their young age [10].

Conclusion

Severe trauma to the genitals is uncommon. A distinction is made between trauma to the bursa, fractures of the penis, strangulation of the genitals and amputations of the penis. The clinical lesion assessment determines the management of the case. The place of complementary examinations is not always well defined and controversial; however, they are of definite help in the emergency management if one knows their limits. Emergency treatment is surgical in the majority of cases.

Furthermore, the practitioner must be attentive to the after-effects on sexual function and fertility.

Consent: Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Provenance and peer review: Not commissioned, externally peer reviewed.

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