

Lucky Case: An unusual penetrating injury of the scrotum in an adolescent: traumatic implantation of a rebar

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Running Title: Penetrating scrotal injury

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Abstract

Penetrating scrotal trauma usually results with injury to immediate structures including testis, urethra, vas deferens and vessels or adjacent nongenital structures. In a limited number of published scrotal trauma cases in literature, associated organ trauma or injury to adjacent structures were usually present. In this case report, a patient with isolated scrotal penetrating injury due to a rebar is presented. To our knowledge, such a trauma with regard to its occurrence and limited damage is the first in the medical literature.

Key words: Scrotum, penetrating trauma, rebar injury

Özet

Penetran skrotal travma genellikle hemen yanındaki testis, üretra, vas deferens ve damarlar veya komşu nongenital yapılar da dahil olmak üzere komşu yapıların yaralanması ile sonuçlanır. Literatürde yayımlanan sınırlı skrotal travma vakalarında organ travması ya komşu yapılarda yaralanma genellikle bulunur. Bu olgu sunumunda, inşaat demiri nedeniyle oluşan izole skrotal penetran yaralanmalı bir hasta sunulmuştur. Bildiğimiz kadarıyla, oluşum biçimi ve sınırlı hasarıyla böyle bir travma tıp literatüründe ilktir.

Anahtar kelimeler: Skrotum, delici travma, inşaat demiri travması

Introduction

Scrotal trauma accounts for less than 1% of all trauma-related injuries in children, because of the anatomic location and mobility of the scrotum(1). Penetrating trauma involving the scrotum causes damage not only to testicular structures but also to adjacent structures and organs. Therefore, a systemic rather than a local approach should be considered for these patients. More exceedingly rare is a penetrating injury involving the scrotum solely, without causing any damage to its contents and nearby structures(2,3). In this case report, a patient with isolated scrotal penetrating injury due to a rebar is presented. To our knowledge, such a trauma with regard to its occurrence and limited damage is the first in the medical literature.

Case report

A 15- years -old boy was brought to the pediatric emergency department with a rebar stuck in his scrotum. The patient had fallen on the rebar while taking pictures with his friends at an empty construction area and was impaled on it. Firemen cut off the rebar and the patient was brought to the emergency department. On arrival patient was conscious and hemodynamically stable. On physical examination a rebar of 1,5 meters long was seen stuck in the right hemiscrotum penetrating from the anterior aspect near the raphe, directing towards the pubic bone and exiting from the suprapubic region by skimming the superior ramus of the pubic bone from above, following a relatively superficial route. The bar was lying towards the left breast and had caused abrasions on the skin(Fig. 1). There was no significant bleeding. On an initial quick examination, penis, urethra and rectum appeared intact. Patient urinated easily without hematuria. Patient was taken to the operation room directly to identify any associated injury to the nearby structures and to remove the rebar. After removing the rebar, a defect about 2 cm in diameter and 15 cm long was detected. Index finger could be inserted from the both ends easily. As the penetration was superficial and above the pubis and exited through the abdominal skin the urethra, bladder, rectum or other intraabdominal organs were unaffected. Right testis and tunica albuginea were uninjured and vas deferens and the vessels were intact throughout the inguinal canal (Fig. 2). Urethral pathology was absent. Left scrotum and structures were not affected. After irrigation with saline, the wound was debrided and closed over a drain. The patient received anti-tetanus prophylaxis and antibiotics in the postoperative course. Postoperative course was uneventful. On the third postoperative day the drain was removed. The patient was seen to recover fully at the follow up one month later.

Discussion

Penetrating scrotal trauma usually results with injury to immediate structures including testis, urethra, vas deferens and vessels or adjacent nongenital structures. Sometimes intraabdominal organs can also be affected(2). In a limited number of published scrotal trauma cases in literature, associated organ trauma or injury to adjacent structures were usually present. Schwarz and Blair reported a case of a 15 years old male who had a scrotal trauma caused by a broom handle which entered from left scrotum with an exit point through the abdominal wall along with liver laceration. They also published a 45 years old male with a scrotal trauma resulting from broom handle which injured the dartos fascia but unharmed the testis(4). Dorairajan and colleagues performed laparotomy to a 20 years old male due to stab injuries to left chest, left thigh and scrotum. During scrotal exploration, they found that both of the vas deferences were transected(5). Ferlise and colleagues reported a trauma case caused by approximately 1.2 meters long javelin throughout the left scrotum which did not cause associated injury similar to the present case(3).

The characteristics of these cases are that they are most often caused by accidents or consequent to fights and are usually associated with concomitant life threatening injuries. In our case, trauma was related to a preventable incident. If the construction area was closed down or entrance of children were prohibited this trauma could be avoided.

In the patients with scrotal trauma, examination under general anesthesia should be performed to identify and repair the injured structures.

References

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Legends:

Figure 1: Scrotal penetration by rebar

Figure 2: Scrotal expolaration of the rebar showing normal vas deferens and testis.