Atypical scrotal trauma in a child

Abstract

Scrotal trauma is end result of blunt as well as penetrating trauma. Although very rarely reported in literature, penetrating trauma is often secondary to civilian or military violence. Except in cases of scrotal avulsion, this trauma usually manifests as scrotal swelling with intratesticular and scrotal hematoma and various degrees of scrotal wall ecchymosis. Clinical presentation is immediate in majority of cases for penetrating wounds. Recommended current management strategies for penetrating scrotal injuries involves resuscitation and stabilization of the patient, followed by operative exploration, with main aim to achieve hemostasis, do debridement as required and testicular salvage.

The case submitted depicts a very unusual penetrating trauma of left hemi-scrotum due to fall on a wooden fence in a child with rod intact at the time of admission in hospital. Despite such presentation, the child lacked typical features of scrotal trauma and testis was not damaged at all.

Introduction

Scrotal trauma is very rare. Studies conducted at trauma centers have shown that only 3-4 cases of penetrating external male genitourinary trauma report annually [1]. The degree and type of trauma determines the extent of injury to scrotum and structures within it. Although rare, majority of cases usually present as a medical emergency.

Case Report

We present a very rare case of penetrating trauma of scrotum with intact wooden rod through and through in left scrotum. The patient aged 12 years was referred to our hospital. He had a fall about 4 hours back on a wooden fence, one of the rods in the fence had penetrated in left scrotum through and through. He was referred with intact rod. After primary survey, patient was stable with all essential parameters within normal range with no other associated injury. Local examination revealed through and through penetration of left scrotum with testis displaced anteriorly. Testis, epididymis and spermatic cord were clinically normal. Doppler US of left scrotum was normal. Other investigations were also normal.

Scrotal exploration under General anesthesia was carried out. Rod was taken out, and complete exploration of left scrotum was done. Testis was found to be intact and without any evidence of injury or any major bleeding. After complete hemostasis, a through debridement was carried out and scrotal exit and entry wounds were closed. Chromic catgut 3-0 was used to close dartos and scrotal skin. Scrotum was wrapped in guaze and a good scrotal support was provided. Post operative course was uneventful and patient was discharged after 2 days. Patient was on regular follow up for 3 months.
Discussion

Scrotal trauma is end result of blunt or penetrating trauma in the perineal region. Penetrating injuries to scrotum can be low velocity like assaults, animal attacks, motor vehicle accidents and rarely self-mutilation. High velocity penetrating scrotal trauma is encountered in military casualties [1-4]. The overall incidence in US is less than 1% annually, more in age group of 10-30 years. Right testis is more often damaged than left due to greater possibility of trapping against pubic symphysis.

Regardless of the mechanism of injury, penetrating scrotal trauma requires immediate evaluation and management. All patients need to evaluated as per trauma management guidelines like stabilization of vital signs and control of active bleeding. Once patient is stable one can take a thorough history, assess the type of injury, the magnitude of injury. It is desirable to look for other contributing factors, such as intoxication or presence of psychotic symptoms.

Physical exam should focus on scrotal lacerations and wounds and any apparent injury to scrotal contents. Additionally, penetrating trauma to the scrotum often involves adjacent structures [5,6]. It is highly recommended that a thorough examination of the abdomen, pelvis, penis, perineum, thighs, and lower extremities looking for associated injury be performed. All routine hematological and urinary investigations must be performed. Radiological investigations like colour Doppler may be performed in cases with delayed presentation.

Immunization status in relation to tetanus must be enquired and accordingly tetanus booster may have to be given. If scrotal trauma is secondary to animal bite, a rabies immunization may be indicated. Use of antibiotics in post-operative period depends on severity of trauma as well as hospital protocols.

Conclusion

Our case was unique in many ways. First of all it is due to fall on a wooden rod. Patient presented with intact rod to hospital. It was left hemi-scrotum which was involved. Patient on examination had no typical symptoms of scrotal trauma. Furthermore, no testicular or any important structure was found injured on exploration.

References