Management of six cases of penile fracture


Objective: To present and analyze six cases of penile fracture in relation to immediate progression, diagnosis and management.

Materials and methods: Case records of patients diagnosed with penile fracture were retrospectively (4 years) reviewed. Case history, action mechanism, physical examination, diagnosis, management, findings and surgical complications were analyzed. The review included 6 patients with ages ranging from 26 to 70 years. Fracture occurred in 4 patients during coitus and was self-inflicted in 2 patients. Deformity, hematoma and numbness were present in all 6 patients. None presented with transurethral bleeding. Immediate progression was under 12 hours and diagnosis was clinical. Patients underwent exploratory surgery. Five patients presented with unilateral injury in the tunica albuginea and one patient presented with injury in the dorsal vein. Follow-up protocol was carried out for six months. One patient presented with foreskin necrosis that was managed with mechanical washing and necrotic tissue debridement. The other five patients did not present with complications. Sexual and anatomical functions were conserved.

Discusión: La túnica albugínea es la fascia más resistente del cuerpo humano, pero durante la erección pierde esa capacidad. En estado de flacidez tiene un grosor aproximado de 2.4 mm y en erección de 0.25 a 0.5 mm; en este último estado es más frágil. El diagnóstico es clínico. El
Discussion: The tunica albuginea is the most resistant fascia of the human body but during erection it loses that quality. In its flaccid state it is approximately 2.4 mm thick and when erect it is between 0.25 and 0.5 mm thick. It is most fragile during erection. Fracture is clinically diagnosed. Rupture is not able to be seen with ultrasonography. When urethral injury is suspected cystourethrography must be performed for rule-out diagnosis. Conservative management is the cause of 40% of penile deviation and erectile dysfunction complications. Dorsal vein injury can appear to be a corpus cavernosum fracture by causing important hematoma and penile deviation.

Key words: penile fracture, penile trauma, tunica albuginea.

INTRODUCTION
Contusive trauma to the erect penis can injure the tunica albuginea of the corpus cavernosum, producing fracture. Traditionally this type of injury was conservatively managed by means of direct compression and the administration of antibiotics and analgesics. This management resulted in up to a 50% incidence of complications. Currently this injury is considered a urological emergency that will determine erectile function and normal emptying of the bladder.1-3 At the moment of fracture, the patient may hear a cracking sound followed by intense pain, hematoma, ecchymosis and deformity. Diagnosis is based principally on clinical history and examination and in some cases ultrasonography can be useful in corroborating diagnosis.4

Between 10 – 20% of patients present with urethral injury manifested by hematuria, acute urine retention or urethrorrhagia and 3% of patients present with dorsal vein injury. Urethral injury can be confirmed by presurgical urethrography.5-6

The most common long-term complications are erectile dysfunction, fibrous plaque, painful angled erection and abscess. Patients with urethral injury can present with urethrocystoanourethral fistula or corpourethral fistula or urethral stricture.

CASE REVISION
Case records of penile fracture going back no further than 4 years were retrospectively reviewed. Case history, injury mechanism, physical examination, diagnosis, management, surgical findings and complications were all analyzed.

Six cases of patients between the ages of 26 and 70 years were identified. Injury occurred during coitus in 4 of the patients and was self-inflicted in 2 cases. Deformity, hematoma and numbness were found in all 6 patients (Image 1). None of the patients presented with transurethral bleeding and urethrography was not necessary. Progression from the moment of injury to urological evaluation resulting in clinical diagnosis was less than 12 hours.

The 6 patients underwent exploratory surgery (Image 2). Circumferential incision was made in the coronal sulcus as well as proximal dissection in order to thoroughly examine the tunica albuginea. Five cases presented with unilateral injury of the tunica albuginea and 1 case presented with dorsal vein injury. Reconstruction was carried out using 3-0 Vicryl with running suture in the tunica albuginea and ligature in the dorsal vein (Image 3). Tunica albuginea lacerations were between .5 cm and 3 cm in length.

Out-patient follow-up care continued for 6 months. One patient presented with foreskin necrosis that was treated with mechanical washing and debridement of the necrotic tissue. There were no complications in the other patients. Sexual function and anatomy were conserved in all cases.

DISCUSSION
The tunica albuginea is the most resistant fascia of the human body but it loses that quality during...
CONCLUSIONS

Penile fracture is an uncommon event that can have significant repercussions on sexual function if not managed adequately and opportune ally.

BIBLIOGRAPHY