

Traumatic rupture of corpus cavernosum

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ABSTRACT

Traumatic rupture of Corpora Cavernosa is an uncommon injury. We report a case of fractured penis in a 60 year old which was managed by immediate exploration and operative repair. Post operative recovery was uneventful with full return of erectile function.

Keywords: Fracture penis, operative repair.

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Fracture of the penis or traumatic rupture of the corpora cavernosa is an uncommon injury.¹ Approximately 300 cases have been described in the literature but a large number of cases go unreported because of the perceived embarrassment by patients suffering with this condition. The events and presentation subsequent to the injury are characteristic - a cracking or popping sound followed by rapid detumescence of the erect penis and onset of pain, swelling and ecchymosis confined to the penile shaft.² In 10 to 20% of cases, cavernosal injury is accompanied by urethral injury. Conservative therapy was advocated as the ideal treatment earlier, but most recent reports lay emphasis on immediate exploration and surgical repair to prevent the late sequelae of penile deformity and persistent penile pain.

Case Report. A 60 year old man presented to the Emergency Room with complaints of pain, swelling and bruising of the penis following an injury sustained during sexual intercourse 5 hours ago. He denied any unusual sexual practices or extraneous trauma. There was no previous history of diabetes or hypertension or blood dyscrasia. He had voided freely after the incident.

On physical examination, the patient was anxious and distressed with stable vital signs. Chest and cardio-vascular system were normal. On abdominal examination, there was no bladder distention. The penis was grossly swollen with marked ecchymoses and it was deviated to the right (Figure 1). The scrotum was normal with no bruising and there was no blood at the urethral meatus. Results of routine investigations were as follows: WCC $6.8 \times 10^9/L$, BT 1' 45", CT 3' 55", Hb 13.1 gm%, RBS 5.6 mmol/L, Urea 3.7 mmol/L, Creat 112 umol/L, Na⁺ 145 mmol/L, K⁺ 3.7 mmol/L, Urinalysis RBC 4-6/hpf. Chest x-ray and ECG were normal.

The patient was transferred to the Operating Room and under general anaesthesia a 16 French Foley catheter was passed per urethra. Through a circumferential subcoronal incision, the penile shaft was degloved. There was a large hematoma within the interstitium, beneath the Buck's fascia, and on evacuation of the hematoma, two tears were detected on the dorsum of the left corpus cavernosum oozing blood. The right corpus cavernosum, corpus spongiosum and urethra were intact. The corporal tears were repaired with 000 vicryl and the coronal incision approximated with 000 chromic catgut leaving a tube drain in situ. The penis was covered

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Figure 1 - Fractured penis with penile edema, deformity and discoloration.

with a light gauze dressing. The patient received antibiotics and analgesics postoperatively and the drain and catheter were removed after 24 hours. The patient was discharged on the 4th post operative day. On subsequent review after a fortnight, the wound had healed well and at one month, the patient reported normal erectile function.

Discussion. Rupture of corpus cavernosum was first described by Malis in 1925.³ Nicolaisen et al in 1983 in a literature review reported 110 cases, of which 11 cases had associated urethral injury.⁴ Fracture of the corpora cavernosa is always associated with an erect penis. This is because during tumescence there is thinning of the tunica albuginea associated with increased rigidity of the corpora. Classically, penile fracture presents with an abrupt popping sound followed by sudden detumescence of the erect penis and pain, swelling and ecchymosis. The resulting hematoma is confined to the space beneath Buck's fascia and remains within the penile shaft and does not extend to the scrotum. The penis is usually deviated to the side opposite to the side of the ruptured corpus cavernosum.

Cases associated with urethral injury usually present with blood at the urethral meatus and with an inability to void, but urethral injury cannot be ruled out if these features are absent. The diagnosis of penile fracture can be easily made on the basis of the typical history and physical examination.

Cavernosography has been proposed to aid in the diagnosis.⁵ Extravasation from the corpora is diagnostic but false-negative results may be due to early sealing of the corporal tear by clot. Retrograde urethrography has been recommended when urethral injury is suspected on clinical grounds.

The ideal management of penile fracture has been a subject of some controversy. Until recently, conservative therapy with analgesics, antibiotics and ice packs was advocated⁶ but approximately 10% of these cases developed penile deformity or complained of painful erection or pain during intercourse. To minimize the incidence of these sequelae Meares, in 1971 stressed the need for immediate exploration with evacuation of hematoma and primary repair of the corporal tear.⁷ Asgari et al in 1996 also advocated immediate surgical intervention to avoid serious complications. They reported excellent functional results in 29 out of 32 patients in their series; 3 patients had persistent penile curvature and pain during coitus.⁸ The advantages of primary repair are a shorter hospital stay and the opportunity to repair or reanastomose any urethral injuries, if present. Usually after immediate surgical exploration and repair, there is little chance of penile deformity and erectile function is usually normal.¹

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