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Fracture Penis – A Case Report

KEYWORDS: fracture penis, tunica albuginea, erectile dysfunction

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ABSTRACT *A 37 year old male presented at casualty with history of swelling over the shaft of penis which developed after having sexual intercourse in early morning. On examination there was a swelling over the mid shaft of the penis. Patient was taken to the Operation theatre for repair of penile fracture. Intraoperatively, a tear was identified in the Tunica albuginea over the right corpora cavernosa. The defect was closed. Post-operatively, patient's hospital stay was uneventful. After one month of discharge, patient had no complaints and normal erection.*

Introduction:
Fracture penis is an injury characterized by rupture of the tunica albuginea enveloping the corpus cavernosum. The rupture can also affect the corpus spongiosum[1].

It is mostly caused by a blunt trauma to an erect penis. It can be accompanied by partial or rarely complete urethral rupture or injury to the dorsal nerve and vessels. Trauma during sexual relations is responsible for approximately one third of all cases; the female dominant position is most commonly reported. The incidence of concomitant urethral injury in reported

cases was 10–58%, which were mostly incomplete/ partial urethral injury. Penile fracture is a urological emergency that may have devastating physiological and psychological consequences. However, with prompt diagnosis and expedient surgical management, outcomes remain excellent[2].

The complications are erectile dysfunction (ED), defined as the inability to achieve or maintain an erection sufficient for satisfactory sexual performance[3]. Other important complications of this injury include penile fibrotic nodules and chordee. Globally, penile fracture is a rare or at least rarely reported[4].

Case report:
A 37 year old male presented at casualty with history of swelling over the shaft of penis which he noticed in the early morning, when he heard a 'click' while having sexual intercourse. Since then the swelling over the penis had been gradually increasing.

On presentation his vitals were normal. Systemic examination was unremarkable. Local examination revealed a large swelling over the mid shaft of the penis that was deviating it to the left (Fig.1). After doing routine blood investigations and an ultrasound of the shaft of the penis, the patient was taken to the OT for repair of penile fracture. 16 Fr Foley's catheter was inserted into urinary bladder which was negotiated without difficulty. A circumferential subcoronal degloving skin incision was taken. A large volume of blood clots were drained. A tear was identified in the Tunica albuginea over the right corpora cavernosa (Fig.2). The defect was closed with 5-0 PDS (Fig.3) followed by closure of the subcoronal incision with 3-0 Vicryl (Fig.4).

Postoperative period was uneventful. The swelling gradually subsided. I.V. antibiotics and anti-inflammatory agents were given to avoid secondary infection and pain relief. On postoperative day 6 the Foley's catheter was removed and the patient was discharged with strict instructions to avoid intercourse for 3 month.

After one month, the swelling had completely subsided. Patient had no symptoms and was able to attain full erection and had no urinary complaints. After 3 months, patient reported he is having normal sexual intercourse.

Discussion:
Penile fracture usually occurs due to bending of the erect penis during sexual intercourse[5]. Penile fracture is a rupture of the tunica albuginea of the corpous cavernosum during sexual intercourse. Clinically, the majority of patient reports indicate that penile pain is usually associated with a "snap" sound and immediate detumescence during sexual intercourse. Penile fracture may also occur during masturbation and other described mode of injuries are after rolling over onto the erect penis, falling off a mountain, landing on one's erect penis and a donkey bite[6]. The penis is abnormally curved, often in an S-shape. If the Buck's fascia is intact, penile ecchymosis is confined to the penile shaft, however if the Buck's fascia has been torn, the swelling and ecchymosis are contained within the Colles' fascia. In this instance, a "butterfly-pattern" ecchymosis may be observed over the perineum, scrotum, and lower abdominal wall. In another case, Mydlo, et al. described 34 patients with confirmed penile fracture, and all 34 reported pain, a "snap", and rapid detumescence[7].

Due to high energy trauma, urethral rupture is associated in up to 38%[8]. of penile fractures, which are mostly partial. Complete urethral disruption is a rare manifestation and nearly all occur due to intense sexual intercourse. However in low energy trauma the urethra is rarely involved[9 10].

Penile fracture is diagnosed based on clinical criteria, and the only recommended imaging modality, the retrograde urethrogram, should be used selectively to diagnose concomitant urethral tearing that may be associated with penile fracture. Various imaging modalities, such as cavernosography, sonography, and magnetic resonance imaging have been reported to facilitate the diagnosis but are usually unnecessary. Blunt penile trauma can be diagnosed solely on the basis of the history and a physical examination[11].

Initially, non-surgical treatment was introduced for penile fractures. Conservative therapy consisted of cold compresses, pressure dressing, penile splinting, anti-inflammatory medications, fibrinolytics, antibiotics, erection suppressing

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drugs and supra-pubic urinary diversion with delayed repair of urethral injuries. This was associated with high complication rate (29–53%). The complications included missed urethral injury, penile abscess, nodule formation at the site of rupture, chordee, painful erection, stricture urethra, painful coitus, erectile dysfunction, corporourethral fistula, and fibrotic plaque formation. Usually circumferential subcoronal degloving incision is taken, however a midline vertical incision is also recommended. Presently fracture penis is considered as an emergency and immediate surgical repair is the gold standard treatment[12] .

Conclusion:

Surgical treatment provides results which are very satisfactory for patients and have low morbidity. Immediate surgical repair is the gold standard treatment. So earliest surgical intervention is strongly recommended in a case of fracture penis.

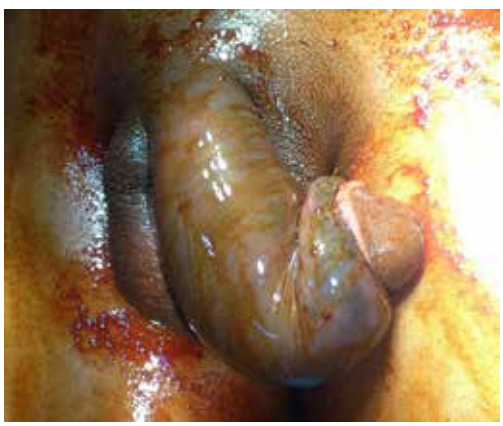

Figure-1: Penile Oedema at the time of presentation

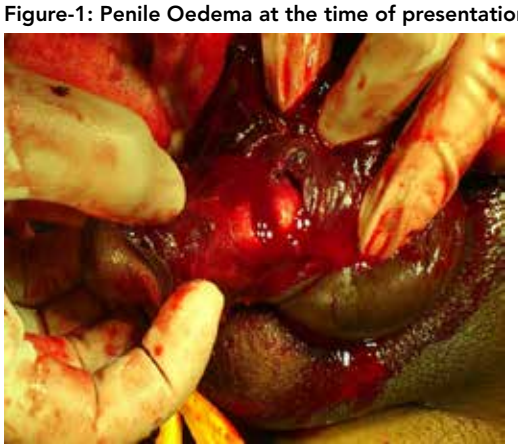

Figure-2: Tear in tunica albuginea

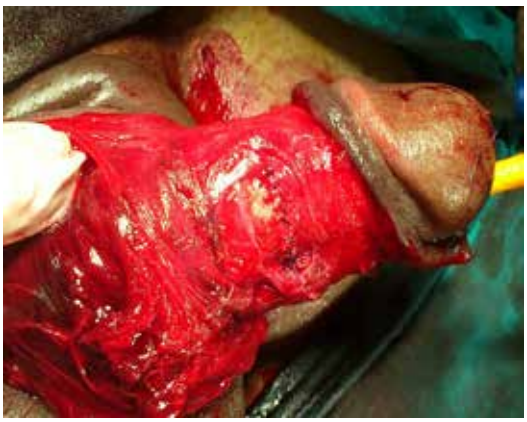

Figure-3: Repair of corpus cavernosum

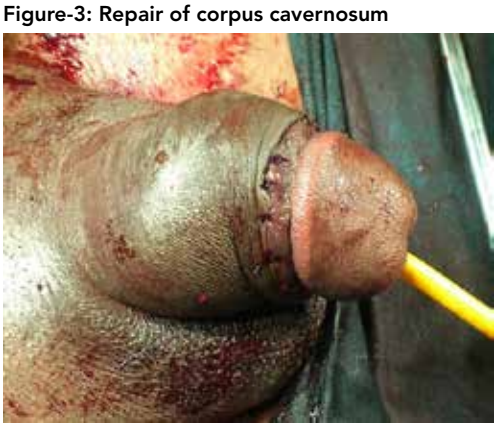

Figure-4: Subcoronal degloving incision closed

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