Case Report:

Fractured Penis – A case report

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Abstract

An under reported condition with an increasing occurrence, Penile fracture is a serious urosurgical entity. Injury of the tunica albuginea which is seen as discontinuity; its site, nature and extent can be accurately depicted even by routine ultrasound. Even though the patient has severe pain and swelling of the penis quick sonographic imaging is a deciding factor whether to operate or not as ultrasound can show the tunica albuginea breach. Moreover, other associated injuries can also be demonstrated non-invasively. This case report attempts to make all readers aware about the existence of this entity so that not only a timely medical attention is sought for that it also is adequately provided in order to prevent physical as well as psychological problems.

Keywords: Trauma to penis, Fracture Penis, Tunica albuginea, Ultrasound

Introduction

A sudden unexpected accidental rupture of tunica albuginea and one or both of the corpora cavernosa complexes constitutes an entity called as the penile fracture. Although the most common cause is a violent sexual activity [1], other causes like accidental injury during sleep are also known to cause this devastating injury. Prior infections or injuries in this region make the patient more prone especially if he is using performance enhancing drugs. Along with penile fracture, corpora-spongiosal and urethral injuries are also said to exist [2]. Timely diagnosis followed by immediate surgical exploration and corporoplasty if required urethroplasty is the need of the hour in such condition [3]. A thorough clinical examination may not always be possible or may be inconclusive and at times in the era of Consumer Protection Act (CPA) may require an imaging documentation, hence comes the role of imaging [4]. Ultrasound because of its widespread availability, portability and non-invasive nature that also enables a quick and satisfactory assessment of regional vascularity, scores over other imaging modalities and enables reaching a definitive diagnosis.

Case Report

A 31years male was brought to casualty at midnight with complaints of pain and sudden detumescence of penis while performing coitus. Clinical examination revealed a swollen, flaccid, blackened penis deviated to one side (Table/Figure: 1) and there was severe tenderness on palpation. The urethral meatus was not blood stained. A clinical diagnosis of fractured penis without any obvious urethral injury was made and the patient was referred for urgent ultrasound examination to get a medico-legal documentation. High resolution ultrasound axial (Table/Figure: 2) and longitudinal (Table/Figure: 3) images demonstrated a ruptured tunica albuginea and a 12 x 8 mm sized tear in the right mid corpora cavernosa.
where a hematoma (as shown by arrows in Figures 2 & 3) was seen to be localized. On ultrasound the left corpora cavernosa and urethra appeared intact. The patient was immediately explored under anaesthesia. A right corporal repair with inverted sutures of prolene 2-0 was performed. Postoperatively (Figure 1) patient was prescribed antibiotics and a prophylactic urethral catheter was kept for 10 days, which was subsequently removed. He was asked to abstain from intercourse until complete healing has occurred. Follow up at six months demonstrated satisfactory erectile function as demonstrated by penile Doppler.

**Fig.1-** Pre Op and Post Op Clinical Photograph of Penile #

**Fig.2-** High Resolution USG Axial Image showing Penile #

**Fig.3-** High Resolution USG Longitudinal Image showing Penile #

**Discussion**: Normally [5-8] inside the penile shaft, erectile tissues are arranged in columnar fashion. Dorsolaterally there are two corpora cavernosa and the ventromedially there is a corpus spongiosum, each enclosed in tunica albuginea. Ventral extension of the Buck’s fascia [5-6] encloses the single corpus spongiosum whereas the dorsal one encloses the two corpora cavernosa. With sudden rise in the intra cavernosal pressure due to any extrinsic force the already thinned tunica albuginea of the erect penis gives away. Although, vaginal intercourse still remains the single commonest cause [5]; any activity carried in an erect state of penis like masturbation, self-manipulation, sexual intercourse, rolling over in bed; can cause direct penile trauma and result in fractures. Increased use of pharmaceutical agents that enhance the duration of erection further enhances the chances of penile fractures. Pre existing urethral or periurethral infections [6] and injuries in this region increase the chances of penile fractures.

Patients usually present with [5-8] history that they heard or felt a sudden crack or snap in penis, erection loss and swollen deviated painful penis. Usually only one side of the distal two-thirds of the penis is
fractured and less than one-half of the cavernosal circumference is affected. Associated hematomas may be purely intracavernosal or extend to the perineum scrotum or even thighs. Associated urethral injury presents as hematuria or dysuria.

A rare injury is bilateral penile fracture associated with urethral rupture following [9-11] intercourse. It is believed that extreme reduction in the thinness of the corporal tunic (from 2 mm to 0.25mm) during erection and an intra-corporal pressure of at least 1500 mmHg predisposes it fracture [10-11]. Pre-existing local infections or injuries too are known to predispose to a tear in the buck’s fascia leading to a penile fracture on bending [11].

A proper history and clinical examination usually leads to the correct clinical diagnosis; but adequate clinical examination may not always be possible or if possible may be inconclusive and hence comes the role of imaging [12-14]. Imaging proof is a medico-legal document also stands true in Consumers Court. Numerous imaging modalities like cavernosography, ultrasonography (USG) and magnetic resonance imaging (MRI) can be used for evaluating penile fractures. MRI can show soft tissue details in multiple planes but still USG practically scores over it in terms of cost, availability and time consumed for procedure [13-16]. Although it is believed that MRI is superior [17], the data described in the studies is less and hence until statistically significant data is available we suggest that practically available imaging modality should be used.

Immediate exploration under anaesthesia and repair of torn tunica [18, 19] after hematoma removal has been proved to be better than conservative measures [5, 6]. This ensures quick recovery without any angulation deformity [20].

Thus in today's era with increased one night stands and over the counter availability of performance enhancing drugs, fracture penis no more remains a distant entity; but is now metamorphosing into a drastic reality. Hence, the entire medical fraternity must be aware of this entity so that it is diagnosed in time and treated appropriately at the earliest so as to ensure a better quality of life for the affected family. Innovative medical technology & health education is essential for patients so that diseases can be cured rather than be managed. [21]

References:


