Penile fracture is a relatively rare condition arising from a rupture of the corpus cavernosum. In the western world, it is most commonly associated with sexual intercourse. We hereby report a rare case of accidental, non-masturbatory, self-inflicted penile fracture. It was diagnosed promptly based on clinical assessment, confirmed radiologically and managed surgically, resulting in a good long-term clinical outcome.

Our case highlights the importance of maintaining a high index of suspicion to diagnose this rare condition, even in the absence of a typical mechanism of injury, in order to ensure that such an injury is not missed.

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Introduction

Penile fracture arises as a result of a tear in the tunica albuginea of the corpus cavernosum, usually resulting from blunt trauma or bending of an erect penis. Typically, the patient experiences an audible or perceptible “snap”, followed by immediate detumescence, pain and hematoma formation. Concurrent involvement of the corpus spongiosum with urethral injury results in associated per urethral bleeding, which is more common if both corpora cavernosa are involved. It is generally a rare injury, often under-reported, and the most common etiology in the Western world is injury sustained during sexual intercourse.1

Cases of self-inflicted trauma are more often reported in Middle Eastern countries, where the erect penis is forcibly manipulated to achieve detumescence. The diagnosis is made clinically, possibly with further evaluation using imaging such as an ultrasound scan (USS) or MRI scan, and prompt surgical treatment is usually advocated to avoid long term complications such as penile deformity and sexual dysfunction. It is therefore important that the diagnosis of penile fracture is considered, even with any atypical mechanism of injury as long as the clinical presentation is typical.

Figure 1. T2-weighted sagittal view demonstrating defect within tunica albuginea. Arrow shows defect in tunica albuginea.
Here we describe a rare case of accidental, non-masturbatory, self-inflicted penile fracture, which was managed surgically and resulted in a good long-term clinical outcome. To our knowledge, it is a first reported case of its kind.

Case report

A 27-year-old gentleman presented to the Emergency Department with an accidental penile injury. He admitted to experiencing strong early morning erections (EME) since his adolescent years, as was commonly expected, and had been forcibly manipulating his penis in order to soften it or achieve partial detumescence in order to aid micturition. This practice had posed no problems to him over the years.

On that morning, the patient in his drowsy state had inadvertently applied excessive force to his erect penis in a right lateral direction, bending it awkwardly. On this occasion, he reported a “crack”, followed by immediate pain and detumescence. He denied any hematuria.

On examination, the patient was found to have an expanding right-sided dorso-lateral penile hematoma, with no sign of meatal blood, and normal testes.

An unstimulated MRI (Figs. 1 and 2) was performed to further characterize the injury, which revealed a 9 mm × 6 mm defect within the dorso-lateral aspect of the tunica albuginea of the left corpus cavernosum, with an associated peri-cavernosal hematoma. The right corpus cavernosum and corpus spongiosum were confirmed to be intact.

Surgical exploration on degloving of the penis revealed the transverse tear in the lateral aspect of the left corporal cylinder with no urethral involvement. The hematoma was evacuated, and the tear was repaired with a 2-0 vicryl continuous inverting sutures. The patient made a good immediate postoperative recovery. At 6-week and 6-month follow-up, the patient had no residual deformity, and only reported mild erectile dysfunction, responsive to an on demand PDE-5 inhibitor.

At 4 year follow up; he remained symptom free with no signs of erectile dysfunction, and no dependence on PDE5i, with no penile deformity on erection.

Figure 2. T2-weighted axial view demonstrating the left sided defect with a peri-cavernosal hematoma. Arrow shows defect and peri-cavernosal hematoma.

Discussion

The underlying pathology of penile fracture is rupture of the corpus cavernosum of an erect penis. During erection, the tunica albuginea is stretched/thinned, and if put under strain by manipulation, the firmly engorged corpus breaks through, leading to penile fracture.

Although penile fracture has been considered a rare diagnosis traditionally, its incidence is on the rise. It probably remains under-reported due to the embarrassing nature of the condition. Penile fracture is more prevalent in the Middle East than the Western countries. Only a few cases have been reported in the United States in recent years, and even fewer cases in the United Kingdom. Furthermore, cases of penile fracture in the Middle East are more likely to be due to intentional self-manipulation, whereas in Western countries, they are more commonly related to sexual intercourse.

The practice of taghaandan in the Middle East may contribute to the high incidence self-inflicted penile fracture in the region. It means ‘to click’ in Kurdish, and it involves bending the shaft of the erect penis to achieve detumescence or pleasure. This practice is especially common in Kermanshah, Iran. Lack of sex education in the general population may be one of the reasons the intentional self-inflicted penile fracture is much more common in the Middle East compared to Western countries.

One study showed that out of 172 cases of penile fractures from 1990 to 1999 in Kermanshah, Iran, 69.1% were due to taghaandan; only 8.1% were related to sexual intercourse. The remaining mechanisms included rolling over onto an erect penis while asleep, and sports or assault related injuries.

In another review of penile fractures in the Middle East and Central Asia regions, 43% were due to self-manipulation (14% vigorous masturbation, 29% bending of erect penis for sexual pleasure) and only 41% were due to sexual intercourse. When comparing this data to cases of penile fractures in the USA, there were just 29 cases between 1982 and 1999, and over 66% of those were related to sexual intercourse.

In this case, penile fracture occurred as a consequence of unintentional, non-masturbatory, non-intercourse related, self-inflicted trauma. The patient had been forcibly manipulating his penis to aid micturition, and had perhaps inadvertently applied excessive force in his drowsy state.

To our knowledge, this unusual mechanism has not been previously reported in the literature. In such cases, however, a high index of suspicion would facilitate prompt diagnosis and early treatment, maximizing the chance of a good long-term clinical outcome.

Conflict of interest

There is no conflict of interest.

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