CASE REPORT

Fracture penis: a case more heard about than seen in general surgical practice

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SUMMARY

A 36-year-old man presented to the emergency department with a history of trauma to genitalia during intercourse. The patient reported the forceful collision between his penis and the bed and audible clicking sound with swollen penis thereafter. On examination, the genitalia was swollen with an 'S' shaped deformity. The skin over the swelling was apparently normal, with no local rise of temperature. A provisional diagnosis was made after clinical evaluation. Scrotum and testes examination revealed no abnormality. A subcoronal circumferential incision with de-gloving of penile skin was used to access the tunica. A rent in tunica albuginea and corpora cavernosa identified and the defect repaired with absorbable suture material after removal of clot and properly maintaining haemostasis. The patient's postoperative recovery was uneventful. The following case report demonstrates a typical case of fracture penis.

BACKGROUND

Fracture of the penis is a relatively uncommon form of urological trauma. It is a disruption of the tunica albuginea of one or both corpus cavernosum due to blunt trauma to the erect penis.¹ It can be accompanied by partial or complete urethral rupture or by injury of the dorsal nerve and vessels.² Tunica albuginea is one of the strongest fascia in the human body. One reason for the increased risk of penile fracture is that the tunica albuginea stretches and thins significantly during erection: in the flaccid state it is up to 2.4 mm thick; during erection it becomes as thin as 0.25–0.5 mm. Bitsch *et al*³ and De Rose *et al*⁴ proposed that an intracorporal pressure of 1500 mm Hg or more during erection can tear the tunica albuginea. The classic, 'text-book' history of penile fracture is a sudden cracking sound as the tunica tears followed by pain, rapid detumescence, swelling and discolouration of the penis with or without voiding problems.⁵ The most common causes are blunt trauma during sexual intercourse, secondary to rolling in bed, masturbation, unconscious nocturnal penile manipulation or fall on to erect penis.⁶

CASE PRESENTATION

A 36-year-old man presented to the emergency department with a history of trauma to genitalia during intercourse 6 h back. The patient reported the forceful collision between his penis and the bed during intercourse with erect penis and audible clicking sound, swollen, curved penis and

associated pain thereafter. The patient passed urine after the incidence with aggravation of pain on straining. There was no haematuria or external blood loss. On examination of the penoscrotal complex the penis was swollen, curved, typically acquiring the 'S' shape (figure 1). Skin over the penis was apparently normal. Genitalia were tender to touch, with no local rise of temperature. The scrotum and testes appeared normal on inspection and palpation. The patient did not suffer from any other comorbidities like diabetes, hypertension, haemolytic anaemia or blood dyscrasias.

The case was diagnosed to be a case of fracture penis due to genital trauma during intercourse 6 h back.

INVESTIGATIONS

Diagnosis in our case was based on history and physical examination. The patient presented to us with a typical history of trauma to penis during intercourse, with a cracking sound, followed by swelling and pain over it. However, in some cases ultrasound, MRI or diagnostic cavernosography is obtained. Retrograde urethrogram is employed when concomitant urethral injury is suspected.^{7–9}

DIFFERENTIAL DIAGNOSIS

Penile fracture may mimic dorsal vein tear and its incidence in some study range from 15% to >50%.¹⁰ Injury to penile urethra with haematoma can also present with similar clinical features. Priapism to some extent can be confused with fracture penis.

TREATMENT

The patient was presented to us 6 h after the incidence. Under anaesthesia the patient was

Figure 1 A fracture penis showing the typical S-shaped deformity.

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Figure 2 The rent in tunica albuginea and corpora cavernosum.

catheterised without any difficulty. A distal circumferential sub-coronal incision was made followed by de-gloving of the penis up to base, taking care not to injure the dorsal neurovascular bundle. The haematoma within the tunica albuginea was evacuated and the corporal tear was identified (figure 2). The edges of the tunica laceration were closed with interrupted 3/0 vicryl sutures. The sutures were inverted, so the knots will not be palpable. Gittes test, that is, intracorporal saline injection and simulated erection were also performed to localise a non-apparent or incompletely repaired tunical laceration or curvature at the lesion side. The skin incision was closed after proper haemostasis and putting a corrugated drain. The drain was removed after 48 h and catheter after 5 days. The patient was discharged from hospital on day 7, without any significant post-operative complication.

OUTCOME AND FOLLOW-UP

The patient recovered well in postoperative period. On follow-up after 1 month, the patient reported normal arousal of penis but with mild tenderness. Follow-up after 6 months, the patient revealed normal sexual activities as before.

DISCUSSION

Fracture penis in general surgical practice is rare to be reported. It is always embarrassing for patients as well as partners hence often goes unreported. Complications may be early or late. In early complications bleeding, pain, penile oedema, painful erections and wound sepsis are noted. Late complications include erectile dysfunction, chordee, fibrous plaque, there may be palpable knots of non-absorbable suture material used to repair the tunica defect, stricture urethra or urethra cutaneous fistula in cases of urethral tear.¹¹ Erectile dysfunction is usually self-

limiting and resolves in 3–4 months, fibrous plaque is treated by its excision.

Learning points

- ▶ Penile fracture is a urological emergency having physiological and psychological consequences.
- ▶ Common clinical presentations were snapping or popping sound, sudden penile pain, swelling and penile deviation.
- ▶ The aim of early surgical repair was to avoid complications and preserve both sexual and voiding functions and it was achieved.¹²
- ▶ The de-gloving incision is the most cosmetic incision, offers better exposure of both corpora cavernosa, corpora spongiosum, facilitates diagnosis, repair of coexisting urethral and contralateral injuries.

Contributors All the above-mentioned authors have equally contributed in collecting data and photographs for this case report.

Competing interests None.

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