Self-inflicted Macro Urethro-cutaneous Fistula

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An 18-year-old male having a 3 cm coronal macro urethro-cutaneous fistula, developing as a result of a strangulating rope tied at the coronal sulcus in an attempt to cause penile detumescence, is presented for its rare mode of self-inflicted penile trauma and unexpected postsurgical successful cosmetic and functional outcome. [Asian J Surg 2009;32(3):177–9]

Key Words: penile injury, urethra, urethro-cutaneous fistula (UCF)

Case Report

An 18-year-old male presented with a 6-month history of abnormal passage of urine through a coronal macro urethro-cutaneous fistula (UCF) measuring 3 cm which had developed as a result of 5 days of application of a strangulating rope at the coronal sulcus in an attempt to cause penile detumescence. The glans and penile shaft were communicating to each other only through an intervening narrow stalk (Figure 1). The penile shaft demonstrated full erection but the glans remained flaccid, though had normal sensations. The patient had 5 years of history of having recurrent episodes of acute depression and associated irregular treatment. The proximal end of the glans and the distal end of shaft were thoroughly de-epithelialised (Figure 2) and meticulously sutured with 3-0 Vicryl interrupted sutures (Figure 3). Thereafter, the macro UCF was circumcised, tubularised, re-enforced with a dartos fascial flap and subsequently covered by Byar’s preputial flaps. The patient had a normal erection (shaft and glans) and the cosmetic outcome at 1 year of follow-up is shown in Figure 4. Although no objective test such as urethrography or uroflowmetry was carried out on follow-up, a local examination revealed a normal urinary stream and he reported a history of proper erections.

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Discussion

The most common cause of penile injuries is not accidental but rather genital self mutilation. Various modes of penile injuries could be:

(a) self-inflicted\(^1\)
(b) human, dog and monkey bites\(^2\)
(c) gunshots and penetrating trauma especially during war time in civilian populations\(^3\)
(d) road traffic accidents
(e) burns (electrical, chemical and thermal)
(f) iatrogenic (prolonged catheterisation and vacuum erection devices)\(^4\)

These injuries can lead to partial or complete amputation of penis, penile fractures and penile soft tissue injuries with or without urethral injuries. Self-inflicted penile injuries are the most common cause of penile amputation and are caused during acute psychiatric illnesses.\(^5\) The treatment of such injuries is replantation of penis and is generally acceptable to the patient only after his psychiatric illness is stabilised. Penile fractures in most cases is caused by striking the erect penis against the symphysis or perineum during intercourse after the penis has slipped out of the vagina. A few of these patients could be associated with urethral injuries requiring urethrography for their diagnosis.\(^6\) Associated urethral injuries are repaired immediately along with repair of the penile fracture, followed by a silicone urethral catheter drainage for 3 weeks. Penetrating penile injuries and gunshots generally cause massive soft tissue destruction with urethral injury in about 50% of cases.\(^7\) So urethrography is suggested for all such cases.\(^6\) Treatment includes control of bleeding, suprapubic cystostomy and preservation of all possible tissue for secondary reconstruction.

The mode of injury in our case was self-inflicted, but it was not a partial or total amputation rather an ischemic injury to the penile glans subsequently resulting in a urethro-cutaneous fistula. We could not lay hands on literature regarding such an unusual presentation of penile injuries. Another point which needs to be highlighted, with regard to the present case, is that a successful outcome can be achieved in these cases with active and proper management, even if they presented late. We could achieve proper urinary and erectile function in our case at 1 year follow-up.
References