Late Delayed Repair of Fractured Penis

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Abstract

Early surgery has been recommended by most authors for fracture penis. Due to gross swelling of the penis, early surgery may have to be performed using an extensive degloving incision of the penis to enable a better exposure. We report a case who presented late with deformity and pain. Simple repair at that stage provided a good result in this patient; hence it may be possible to repair fracture penis at a later stage without degloving the penis. Additionally, this case presentation may probably explain the pathogenesis of the ‘rolling sign’, described by us earlier.

Introduction

Although immediate surgical repair has been recommended by most authors for fractured penis, delayed repair is possible and has been suggested in situations where accurate localization of the fracture site is clinically not evident (Naraynsingh et al, 2003; Nasser and Mostafa, 2008). The gross penile swelling decreases rapidly, and by 7-12 days, the clot at the fracture site is easily palpable and is often visible. Earlier, we had described the ‘rolling sign’ for early identification of the fracture site, even when the penis is quite swollen (Naraynsingh and Raju, 1985). We report a late presentation of a case of fracture penis which probably clarifies the pathogenesis of the ‘rolling sign’.

Case Report

A 26 year old man presented to our hospital more than three weeks after sustaining an injury to his penis. While having sexual intercourse, he twisted his penis which rapidly became swollen, detumescent and painful. Immediately after the injury, he was admitted to another hospital, managed conservatively and discharged after 3 days. He was followed up in the outpatient clinic of the same hospital, 21 days after trauma. At this time, much of the swelling had subsided and he was advised not to have surgery. However, two days later, he attended our hospital because of pain and angulation of the penis during erection (Fig.1).
On examination, there was a mild angulation of the penis; there was a palpable fixed, firm, immobile 2 cm swelling over the ventral side. The skin could be rolled above the swelling which has been described earlier as the ‘rolling sign’ (Naraynsingh and Raju, 1985). Ultrasound and corpus cavemosography were not necessary as this clinical sign precisely identifies the fracture site.

Under ring block anaesthesia using 2% lidocaine, a transverse incision was made directly over the lump. The skin and subcutaneous tissue were normal. The Buck’s fascia was bulging due to the clot which was trapped between the fascia and the torn corpus cavernosum (Fig. 2). The Buck’s fascia was incised and the clot was exposed (Fig. 3). When the clot was evacuated, the fracture site could be easily identified. The floor of the cavity was exposed and repaired with 3 interrupted 3-0 vicryl sutures (Fig. 4). The patient was discharged the same day, with full correction of the angulation and deformity (Fig. 5). He has normal, painless erections without angulation of the penis at three months following the late ‘delayed’ repair.

Discussion
Most authors recommend early surgery as the treatment of choice for penile fracture (Muentener et al, 2004; Chung et al, 2006). When surgery has to be performed at an early stage when the penis is grossly swollen, most surgeons routinely repair the torn corpus cavernosum via a degloving circumcoronal incision (Mydlo, 2000; Kamadar et al, 2008). The justification for such extensive exposure is to have a complete access to all the three corporal bodies, as well as the neurovascular bundle (Kamadar et al, 2008).

However, it is a well known fact that the vast majority of patients have a small unilateral tear of the corpus cavernosum (Ishikara et al, 2003; El-Etat et al, 2008). Only a small percentage has urethral injury. In fact, in the largest series published on this subject, only 5 of 300 patients had evidence of urethral injury (El-Etat et al, 2008). Since the vast majority of cases have a small, unilateral, often proximal cavernosal tear, it appears unnecessary to deglove the entire penis to expose and repair this injury. The extensive degloving dissection may cause injury to more blood vessels, nerve and tissue, prolonging the surgical duration and often necessitating general anaesthesia. Additionally, this extensive degloving procedure may also carry a high risk of
complications such as wound infection, abscess formation and subcoronal skin necrosis (Mansi et al, 1993). In this particular case where the fracture site is quite distal, a circumcisional approach might be used as extensive degloving would not be needed. However, the direct approach we employed involves only one-third of the penile circumference and no undermining of the tissues. It is cosmetically acceptable as seen in Figure 5.

The relatively late presentation of our patient at 23 days following fracture penis may demonstrate that much of the penile swelling, commonly thought to be a haematoma, is mainly comprised of oedema fluid and non-cellular elements of blood. The real haematoma consisting of cellular elements is well trapped between Bucks fascia and the fractured cavernosum. Thus, when most of the swelling settles, the clot at the fracture site persists and becomes much more evident clinically. If the ‘rolling sign’ is not discernable on immediate presentation, it is likely to become more obvious after 7-12 days (Naraynsingh and Raju, 1985). If the patient presents late, as in our case, the sign may be even more obvious.

Our patient definitely benefited from the late repair since his painful erection and angulation of the penis would not have been corrected without surgery. There is little doubt however, that the best treatment option is immediate surgery and late repair be reserved for uncommon cases such as ours where surgical repair is still beneficial. The long-term consequences of late repair are unknown; follow up of several cases would be needed to assess the sequelae, since penile fracture may lead to fibrosis and penile plaque formation. Although conservative management has been suggested as a treatment option, this may result in complications such as painful erection and angulation (Muentener et al, 2004). If these complications are recognized before the onset of fibrosis, as in our patient, surgical exploration and repair should be done. If, however, these complications are not evident during conservative treatment, there may be no need for late exploration.

In summary, the present report may suggest that simple repair of fractured penis by a small incision directly over the fracture site may likely to produce good results. The degloving technique should be reserved for those cases with associated urethral injury or when the diagnosis remains uncertain even after 7-12 days. Additionally, in symptomatic patients presenting late after penile injury, late surgical repair should be undertaken.
References


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