

Late Delayed Repair of Fractured Penis

Case Report

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1 **ABSTRACT:** Early surgery has been recommended by most authors for fracture penis. Because of gross swelling of the penis, early surgery might have to be performed with an extensive degloving incision of the penis to enable better exposure. We report a case in which the man presented late with deformity and pain. Simple repair

at that stage provided a good result in this patient; hence, it might be possible to repair fracture penis at a later stage without degloving the penis. Additionally, this presentation could probably explain the pathogenesis of the “rolling sign” described by us earlier.

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Although immediate surgical repair has been recommended by most authors for fractured penis, delayed repair is possible and has been suggested in situations in which accurate localization of the fracture site is clinically not evident (Naraynsingh et al, 2003; Nasser and Mostafa, 2008). 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 fractured penis that probably clarifies the pathogenesis of the rolling sign.

Case Report

A 26-year-old man presented to our hospital more than 3 weeks after sustaining an injury to his penis. During 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, 2 days later, he attended our hospital because of pain and angulation of the penis during erection (Figure 1).

On examination, there was a mild angulation of the penis and 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 cavernosography were not necessary because this clinical sign precisely identifies the fracture site.

Under ring block anaesthesia with 2% lidocaine, a transverse incision was made directly over the lump. The skin and subcutaneous tissue were normal. The Buck fascia was bulging because of the clot, which was trapped between the fascia and the torn corpus cavernosum (Figure 2). The Buck fascia was incised and the clot was exposed (Figure 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 (Figure 4).

The patient was discharged the same day, with full correction of the angulation and deformity (Figure 5). He has normal, painless erections without angulation of the penis at 3 months following the “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, 2001; Kamdar et al, 2008). The justification for such extensive exposure is to have complete access to all 3 corporal bodies, as well as the neurovascular bundle (Kamdar et al, 2008).

However, it is a well-known fact that the vast majority of patients have a small unilateral tear of the corpus

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Figure 1. Angulation of the penis. Color figure available online at www.andrologyjournal.org.

cavernosum (Ishikara et al, 2003; El Etat et al, 2008). Only a small percentage have 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). Because 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 could cause injury to more blood vessels, nerve, and tissue, prolonging the surgical duration and often necessitating general anaesthesia. Additionally, this extensive degloving procedure might carry a high risk of complications, such as wound infection, abscess formation, and subcoronal skin necrosis (Mansi et al, 1993). In this particular case in which the fracture site is quite distal, a circumcisional approach might be used because extensive degloving would not be needed.



Figure 2. Bulging appearance of the Buck fascia. Color figure available online at www.andrologyjournal.org.



Figure 3. Exposure of the clot after incising Buck fascia. Color figure available online at www.andrologyjournal.org.

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 after penis fracture could demonstrate that much of the penile swelling, commonly thought to be a hematoma, is mainly edema fluid and no cellular elements of blood. The real hematoma consisting of cellular elements is well trapped between the Buck 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 might be even more obvious.



Figure 4. Repair of the fracture site. Color figure available online at www.andrologyjournal.org.



Figure 5. Postoperative appearance of corrected angulation. Color figure available online at www.andrologyjournal.org.

Our patient definitely benefited from the late repair because his painful erection and the 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 that late repair be reserved for uncommon cases, such as ours, in which 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, in that penile fracture could lead to fibrosis and penile plaque formation. Although conservative management has been suggested as a treatment option, this might 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.

The present report suggests that simple repair of fractured penis by a small incision directly over the fracture site likely could 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.

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