J. R. Coll. Surg. Edinb., **43**, April 1998, 97—98

Urology
Simple repair of fractured penis

V. NARAYNSINGH, D. MAHARAJ, T. KURUVILLA AND R.RAMSEWAK

Department of Surgery, University of the West Indies General Hospital, Port-of-Spain, Trinidad, West Indies

Though rare, fracture of the penis is associated with significant morbidity if early surgical repair is not carried out. A simple same-day surgical technique performed under local anaesthesia is presented that requires no pre-operative investigations. Careful clinical examination (rolling sign) is used to accurately identify the fracture site.

Keywords: corpus cavernosum, fractured penis, tunica albuginea.

Fracture of the penis is an uncommon disorder. Though conservative management has been practised, there is strong evidence that early surgical repair of the torn corpus cavernosum minimizes complications.[1,2] Late penile deformity, suboptimum painful erections, difficulty in coitus, pulsatile diverticulum, and prolonged hospital stay are associated with conservative management.[1,3] We routinely perform early repair and report our experience with a new, simple technique performed under local anaesthesia with same-day discharge of the patient.

PATIENTS AND METHODS

Seven consecutive cases of patients with a fractured penis were managed from 1986 to 1995. The patients ranged from 20 to 33 years old and presented from 3 to 20 hours after injury. Five occurred during intercourse and two were caused by manipulation of the erect penis. All the patients had a very swollen, flaccid penis without urethral injury and were able to pass urine. Although the penis was diffusely swollen, careful examination always revealed a well-localized rounded, firm, smooth, tender, immobile swelling, approximately 2 cm in diameter, over which the swollen overlying tissues could be rolled.

Under local infiltration anaesthesia a 2 cm longitudinal incision was made directly over this lump. On incising Buck's fascia, it was found that the firm lump was a clot in the torn corpus cavernosum, trapped in its well-localized position by Buck's fascia. The clot was evacuated and the torn tunica albuginea repaired with 2/0 vicryl sutures after infiltrating its edges with 2% lignocaine. The rest of the 'softer' penile swelling was due to oedema and haemorrhage without clot formation. The skin was closed with 3/0 Polydioxanone. The entire procedure took 10–15 minutes and used about 5 ml of lignocaine. All the patients were discharged on the same day or the next morning if they presented late at night. No early complications of sepsis or haemorrhage and no late complications such as curvature and painful erections have been encountered.

Correspondence: Dr V. Naraynsingh, Department of Surgery, University of the West Indies General Hospital, Port-of-Spain, Trinidad, West Indies

DISCUSSION

Although numerous studies recommend early surgical repair of a fractured penis, many surgeons still use a circumferential incision, degloving the penis to locate and repair the fracture.[4] In fact, in the largest reported series, Asgari *et al.*[5] made a circular subcoronal incision in all 68 patients and always found the tear in the proximal third of the corpus cavernosum. Because the tear is small and proximal we feel it is unnecessary to carry out the extensive dissection required by this distal incision with the degloving technique if the rent can be approached directly. Such an incision must injure more blood vessels and nerves, traumatize more tissue, take longer to perform, and require more anaesthetic and sutures than a small incision directly over the fracture site. Moreover, the subcoronal circumferential incision carries a high complication rate with skin necrosis and wound infection near the coronal sulcus in 66% of patients.[2] We have never encountered skin complications in the small incision direct approach and we do not expect any as there is no degloving, undermining or devascularization of the skin. Although a small incision at the fracture site is preferable, accurate identification of the torn cavernosum may be difficult because the penis is often diffusely swollen.

Careful clinical examination consistently reveals a smooth, fixed, rounded, tender, palpable lump at the fracture site. It is more easily appreciated by rolling the swollen tissue and skin over it and is invariably more tender than the surrounding areas. This is obviously cheaper, quicker and less complicated than corpus cavernosography or ultrasound, which has been used to identify the fracture site.[6–9] We have found this 'rolling sign' to be accurate in identifying the torn cavernosum in all seven consecutive patients.[10]

We recommend this simple direct approach to the fracture site via a small 2 cm incision under local anaesthesia, with same-day discharge of the patient. Penile swelling decreases rapidly postoperatively as there is minimal tissue trauma from this approach compared with the degloving technique. Because there is minimal dissection there is no need for a drain, as sometimes advocated with the circumferential incision,[11] and the swelling settles rapidly after the operation without a drain, compression bandaging or catheterization.

REFERENCES

1 Kalash SS, Young JD Jr. Fracture of the penis: controversy of surgical versus conservative treatment. *Urology* 1984; **24**: 21–4.

2 Mansi MK, Emran M, el-Mahrouky A, el-Mateet MS. Experience with penile fractures in Egypt: long-term results with immediate surgical repair. *J Trauma* 1993; **35**: 67–70.
3 Pryor JP, Hill JT, Packham DM. Penile injury with particular reference to injury of the erectile tissue. *Br J Urol* 1981; **53**: 42–46.
4 Ruckle HC, Hadley HR, Lui PD. Fracture of the penis: diagnosis and management. *Urology* 1992; **40**: 33–5.
5 Asgari MA, Hossein SY, Safarinejad MR, Samadzedeh B, Bardideh AR. Penile fractures: evaluation, therapeutic approaches and long-term results. *J Urol* 1996; **155**: 148–9.
6 Forman HP, Rosenberg HK, Snyder HM. Fractured penis: sonographic aid to diagnosis. *Am J Radiol* 1986; **153**: 1009–10.
7 Koga S. *et al.* Sonography in fracture of the penis. *Br J Urol* 1993; **72**: 228–9.
8 Klein FA, Smith MJ, Miller N. Penile fracture: diagnosis and management. *J Trauma* 1985; **25**: 1090–2.
9 Grosman H, *et al.* The role of corpus cavernosography in acute fracture of the penis. *Radiology* 1982; **144**: 787–8.
10 Naraynsingh V, Raju GC. Fracture of the penis. *Br J Surg* 1985; **72**: 305–6.
11 Lehman E, Kremer S. Fracture of the penis. *Surg Gynecol Obstet* 1990; **171**: 148–50.

Paper accepted 6 February 1997