METATARSOPHALANGEAL JOINT DISLOCATION AFTER LOCAL STEROID INJECTION

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We report two patients in whom the second metatarsophalangeal joint dislocated dorsally after a local steroid injection. As far as we know this phenomenon has not been previously reported.

Case 1. A 50-year-old woman with metatarsalgia of the right foot complained particularly of pain under the second metatarsal head. She had mild claw toes and tender callosities under the second and third metatarsal heads. There was no clinical or radiological evidence of rheumatic disease and her ESR was 15 in the first hour. An orthopaedic surgeon gave her a local injection of methylprednisolone acetate into the painful area through the callosity under the second metatarsal head. She had less pain, but three weeks later she noticed deformity at the base of the second toe. Clinical and radiological examination revealed a dorsal dislocation of the base of the proximal phalanx of the second toe (Fig. 1). It could be reduced by digital pressure but recurred immediately.

The joint was explored through a dorsal approach and the plate reinforcing the plantar capsule was found to be thin and attenuated; white specks of the injected material were present. Partial proximal phalangectomy was performed.

Case 2. A 63-year-old man complained of pain under the

Fig. 1

Fig. 2

second and third metatarsal heads of the right foot. His feet were otherwise normal in every respect, there was no evidence of rheumatic disease and his ESR was 2 in the first hour. He was given two local steroid injections, one through each of the painful areas. One month later he noticed that the second toe had dislocated dorsally (Fig. 2). Fortunately, his pain had disappeared; he was therefore reassured and no treatment was given.

Conclusion. Methylprednisolone acetate injections into the anterior part of the sole of the foot can cause attenuation of the tissues of the plantar capsule of the metatarsophalangeal joint. Within a few weeks this may result in dorsal dislocation of the toe caused by the unresisted pull of the proximal insertion of the extensor digitorum longus into the base of the proximal phalanx.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

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0301-620X/89/5R37 \$2.00

J Bone Joint Surg [Br] 1989; 71-B:864.

EXTERNAL FIXATION FOR FRACTURE-DISLOCATIONS OF THE PROXIMAL HUMERUS

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The use of the external fixator in proximal humeral fractures has been described recently (Kristiansen and Kofoed 1987). Preliminary results were encouraging and our experience confirms this optimism. This paper describes an extension of the method for the management of proximal humeral fracture-dislocations.

Technique. The patient lies supine on the operating table with the affected shoulder overhanging the edge of the table but supported on a radiolucent arm board. The C arm of the image intensifier is placed so as to give anteroposterior and 'shoot through' views. A percuta-

neous pin is inserted into the dislocated head of the humerus from the lateral aspect under image intensifier control. Using this pin to manipulate the humeral head, the dislocation is easily reduced. With a further pin in the humeral head, and two in the shaft below the fracture, the fracture also is reduced and a double external bar is applied to stabilise the humerus. Two pins are then inserted into the subcutaneous superior aspect of the acromion and a further bar stabilises the shoulder joint in 30° of internal rotation (Fig. 1).

The acromial pins remain in position for three weeks

Fig. 1

Fig. 2

Fig. 3

to stabilise the shoulder. They are then removed and mobilisation is begun. The remaining part of the fixator is removed when the fracture has united. Prophylactic antibiotics are given for the first 24 hours.

Patients and results. We have treated two patients by the technique described. The first, a man of 19, had the injury shown in Figure 2; the reduction is shown in Figure 3. The second, aged 36, had sustained a three-part fracture of the neck of the humerus, also with an anterior dislocation of the shoulder. The patients were assessed at 6 and 22 months respectively, utilising Neer's functional scoring system. Both patients achieved high scores (96 and 94) indicating an excellent result. No pin site infections occurred.

Discussion. Fracture-dislocations of the humerus repre-

sent a small proportion of displaced proximal humeral injuries. In reported series closed reduction and manipulation led to poor results (Clifford 1981; Mills and Horne 1985) and those of open reduction and internal fixation also were indifferent, so that the term unsolved fracture has been applied. There is no doubt that closed reduction is often difficult if not impossible, but it is greatly facilitated by insertion of a pin into the humeral head, so that open reduction can be avoided. Mobilisation of the shoulder can take place while stabilisation of the fracture is maintained by the fixator. Scarring is avoided and early pain relief is achieved. Moreover, stabilisation of the shoulder may well reduce the risk of recurrent dislocation.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

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© 1989 British Editorial Society of Bone and Joint Surgery
0301-620X/89/5R33 \$2.00
J Bone Joint Surg [Br] 1989;71-B:864-5.

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A TECHNIQUE FOR REDUCING DIASTASIS OF THE SYMPHYSIS PUBIS

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Gross pelvic fractures are often associated with severe blood loss from torn pelvic veins. Control of this is usually possible only after reduction of the pelvic ring and this can be physically demanding for both operator and assistant. The procedure can be facilitated by using an external fixator, pelvic reduction forceps (Jungbluth 1979) or a rib approximator (Fabian et al 1980). When laparotomy is required, we use a pelvic vice.

Technique. With the patient on the operating table, the two halves of the pelvic vice are placed opposite each

other at the level of the greater trochanters (Fig. 1). The vice consists of vertical bars held to the table by adapted toggles. At the top of each bar is a threaded rod with a padded concave plate for contact with the patient.

Before surgery the vice is compressed to make skin contact only. The skin is prepared and draped so that the vice is beneath the towels and is manipulated by an unscrubbed assistant. At laparotomy any angled segments are manipulated into reasonable position with bone-holding forceps. The vice is then used to compress