

LATERAL DISLOCATION OF THE ELBOW JOINT

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INTRODUCTION

Dislocations of the elbow joint are usually of the posterior variety and may be complicated by fractures and, injury to vessels and nerves. Other varieties of dislocation at the elbow—anterior, lateral, medial and divergent dislocations—are rare (2). In view of its rare occurrence this case of lateral dislocation is being reported.

CASE REPORT

A fourteen year old Chinese boy injured his right elbow when he was pushed down while running. He was seen a few hours after the injury. There was moderate swelling and marked valgus deformity. The elbow was held in about 60 degrees flexion and attempt at movement was painful. The medial epicondyle of the humerus had been avulsed and could be felt and moved to and fro. There was no vascular nor neurological complication.

Radiographs (Figs. 1 and 2) showed that the upper ends of the ulna and radius had dislocated laterally and that the trochlear notch of the ulna was resting against the lateral aspect of the capitulum. The upper ends of the ulna and radius had moved together and there was no change in their relationship to one another. The medial and lateral epicondyles of the humerus had been avulsed and had moved with the upper ends of the ulna and radius.

The dislocation was treated by manipulation. It was disimpacted by holding the upper part of the forearm, and putting moderate traction in the line of the upper arm. Pressure applied to the lateral aspect of the uppermost part of the forearm now easily reduced the dislocation. Radiographs (Figs. 3 and 4) showed perfect reduction of the dislocation but the avulsed epicondyles did not quite return to their original positions. The elbow was immobilised in 90 degrees flexion in a plaster of paris back slab for three weeks and then, a collar and cuff was given for two weeks. Five weeks after injury there was only slight swelling, five degrees limitation of extension and fifteen degrees limitation of flexion. The elbow was then left free.

DISCUSSION

Avulsion of the medial epicondyle of the humerus is quite common and often it is included within the elbow joint. It is also frequently associated with injury to the ulnar nerve (2). The avulsion is the result of a valgus strain and is especially likely to occur before the epiphysis fuses with the lower end of the humerus (which occurs at about the age of eighteen). If the strain is stronger the joint momentarily opens on the medial aspect, and the avulsed epicondyle which is drawn down by the attached flexor muscles of the forearm may be sucked into the joint. The fragment may get locked within the joint when the joint snaps back (3). If the valgus strain is more forcible lateral dislocation of the elbow and avulsion of the lateral epicondyle may occur as in the case reported here.

If on reduction by manipulation the medial epicondyle is not locked inside the joint, all that is required is immobilisation for a few weeks. Usually there is non-union of the medial epicondyle but it does not give rise to any disability (4) and the deformity is slight and is preferable to a scar (1).

If however the fragment is included within the joint, open reduction of the epicondyle and transposition of the ulnar nerve should be done (2 and 3). When there is injury to the ulnar nerve without inclusion of the epicondyle in the joint, conservative management is sufficient as transposition of the nerve does not appear to improve the prognosis (4).

Unlike avulsion of the medial epicondyle avulsion of the lateral epicondyle is rare and is not followed by any disability. It usually requires no treatment except immobilisation for a few weeks. It is only very rarely that the fragment is included within the elbow joint. If however this does occur operative reduction should be done (2).

SUMMARY

The varieties of dislocations of the elbow are mentioned.

A case of lateral dislocation of the elbow, which is rare, is reported. The case was asso-



Fig. 1.

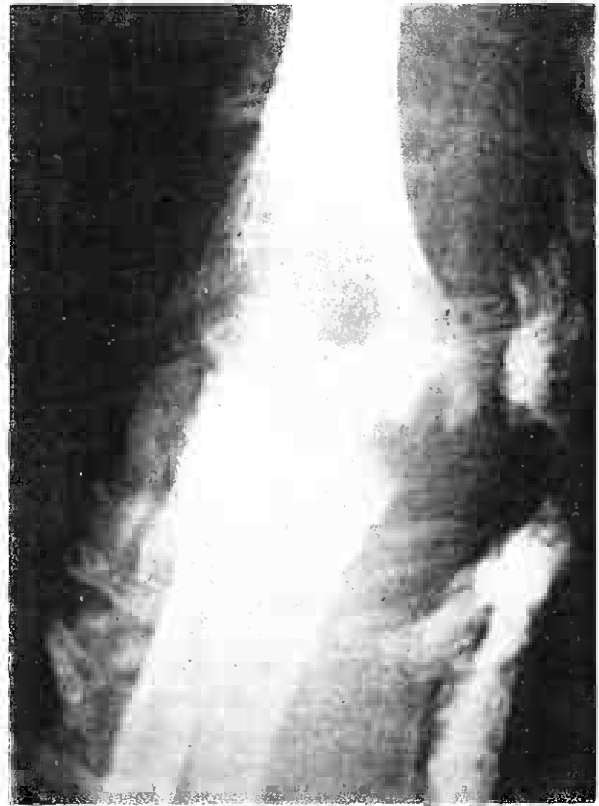


Fig. 3.



Fig. 2.



Fig. 4.

Figs. 1 & 2. Lateral dislocation of the elbow: Pre-reduction radiographs. The upper ends of the ulna and radius have moved together laterally and the medial and lateral epicondyles have been avulsed and have been carried with the ulna and radius.

Figs. 3 & 4. Lateral dislocation of the elbow: Post-reduction radiographs. The dislocation has been reduced but the medial and lateral epicondyles have not quite returned to their original positions.

ciated with avulsion of the medial and lateral epicondyles of the humerus.

The mechanism of causation and the complications and management are discussed.

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