

## **A simple and universal method for reduction of dislocation of the shoulder**

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**Summary.** *A new method of reducing both anterior and posterior shoulder dislocations is described. Force is directed along the axis of the joint and minimal effort is required. The method is safe, simple and successful in both recent and delayed cases.*

**Résumé.** *Description d'une nouvelle méthode de réduction de la luxation antérieure, et également postérieure, de l'épaule, dans laquelle la traction est dirigée selon l'axe de l'articulation. Aussi une force minime est-elle suffisante. La méthode est sûre, simple et efficace dans les luxations récentes et anciennes.*

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### **Introduction**

Dislocations of the shoulder are common and numerous methods of reduction have been described. Of the two popular methods of reduction of anterior dislocation, Kocher's procedure is not recommended for routine use because of the potential complications [2]. The modified Kocher's method recently described by Thakur et al. [3], is not always successful. The Hippocratic method [1] is the most commonly used. The stockinged foot of the surgeon is placed in the axilla for countertraction and levering of the humeral head. Damage to the brachial plexus may occur. There is no

standard method for reduction of a posterior dislocation, which is usually achieved by traction and external rotation. We have evolved a simple and safe method of reduction which can be used for both anterior and posterior dislocations.

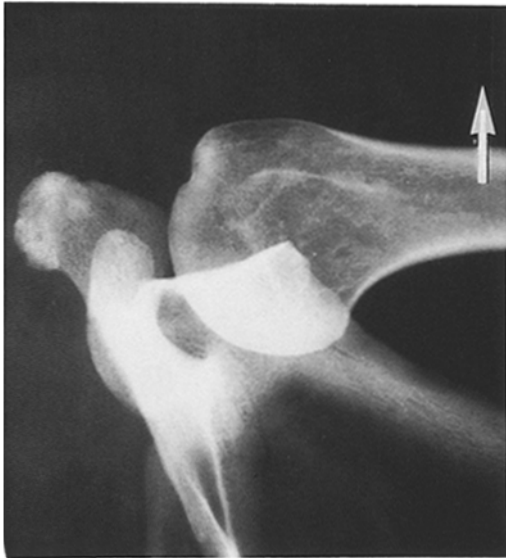
### **Material and methods**

Reduction is done under sedation for recent dislocations and under general anaesthesia for dislocations of more than 24 hours duration. The patient is turned into the lateral position with the affected limb uppermost and supported. The surgeon grips the upper arm with both hands and gradually gives traction perpendicular to the long axis of the humerus (Figs. 1 and 2). For an anterior dislocation the pull is directed slightly posteriorly and for a posterior dislocation anteriorly because of the respective positions of external and internal rotation of the humerus. The weight of the body acts as countertraction and the dislocation is easily reduced.

### **Results**

Between January 1990 and December 1991 we used this method for the reduction of 25 anterior and 2 posterior dislocations. There were 16 males and 11 females aged between 25 and 50 years. Two anterior dislocations had displaced fractures of the greater tuberosity. None had neurovascular damage. Only 5 anterior dislocations were reduced within 24 hours. The remaining 22 patients attended hospital after a delay of 1–6 days. General anaesthesia was used in 22 patients and sedation in 5. Reduction was easily achieved in all cases without complications.

Retrospective analysis of hospital records for the 3 years between January 1987 and December 1988 showed that during this period 56 anterior and 5 posterior dislocations were reduced. One patient sustained a fracture of the shaft of the hu-



**Fig. 1.** Anteroposterior radiograph of anterior dislocation of shoulder. The *arrow* indicates direction of pull

merus during Kocher's manoeuvre and one posterior dislocation could not be reduced at the first attempt.

### Discussion

Dislocation of the shoulder is common and reduction is usually undertaken by inexperienced doctors. Reduction is more difficult in most underdeveloped and developing countries due to the late arrival of patients at hospital. Reduction after a delay of more than 24 h is likely to be difficult and iatrogenic complications can occur. In both the Kocher and Hippocratic methods reduction is achieved by indirect force or by leverage of the humeral head. In the method described by us loading is transmitted principally along the axis of



**Fig. 2.** Clinical photograph showing position of the patient and the method of reduction; the *arrow* points to the direction of pull

the shoulder joint and less force is required for reduction. No indirect or torsional forces are used and the chances of complications are greatly reduced. Only one person is required to achieve reduction since the body weight acts as countertraction. The method described is safe, simple and has always succeeded in our hands. It is equally effective for both anterior and posterior dislocations of the shoulder.

### References

1. Apley AG, Solomon L (1982) System of orthopaedics and fractures, 6th ed. Butterworth, Borough Green, pp 380–381
2. Rockwood Jr CA, Green DP (1984) Fractures in adults, 2nd ed. Lippincott Co., Philadelphia, p 747
3. Thakur AJ, Narayn R (1990) Painless reduction of shoulder dislocation by Kocher's method. J Bone Joint Surg [Br] 72: 524