Percutaneous fixation in fractures of the distal third of the clavicle: simpler, cheaper, better

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I would like to comment on the article by AD Tambe et al. “Fractures of the distal third of the clavicle treated by hook plating” [5]. Fractures in the lateral third of the clavicle are not rare in our daily practice. Although good midterm results have been reported following conservative treatment, the non-union rate in this region is higher than fractures in other parts of the clavicle [3]. The relation of the outer third to the shoulder means that non-union can severely compromise shoulder motion because of pain.

Hook plate osteosynthesis is reported to have good results, but it still is a procedure of open reduction and internal fixation. As in all internal fixation procedures, this may cause general complications such as infection, loss of fracture haematoma, non-union and specific complications like acromial fracture at the hook and hook-cut out, rotator cuff tear, and subacromial impingement [1, 2]. This procedure requires more experience than a standard ORIF procedure. As the authors have stated, the plate should be removed as soon as union occurs to prevent osteolysis [5]. Plate removal is a source of stress to the patients. Also the risk of acromial osteolysis is higher in cases with delayed union.

All orthopaedic procedures trend towards the minimally invasive procedures in this era. Percutaneous fixation using

a malleolar screw, a cannulated screw or a simple K-wire is a minimally invasive procedure. Also these procedures have the advantage of ease of application, simplicity, cheapness and high rate of union [4].

Regardless of the presence of acromioclavicular dislocation, we apply percutaneous fixation using two K-wires under fluoroscopy. We place the K-wires from the lateral acromion, through the acromioclavicular (AC) joint, to the shaft of the clavicle. We remove the wires percutaneously in the polyclinic at six weeks. Although we pass the wires through the AC joint in this procedure, we have not encountered any AC joint problems because of the temporary nature of this procedure. Nor have we experienced any problems with fracture union. In conclusion, we recommend percutaneous fixation as the first line of treatment in Neer type 2 fractures of the clavicle.

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