

Intercondylar distal humerus fractures--surgical treatment and results.

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Abstract:

INTRODUCTION: Controversy persists concerning the preferred treatment for intercondylar distal humerus fractures. The present study was undertaken to evaluate the clinical results after the surgical treatment of 40 intercondylar distal humerus fractures with an average follow-up of 3.9 years.

METHODS: The fractures were classified following the AO/ASIF comprehensive classification. Eight patients presented multiplane fractures. Skeletal traction was used temporarily in two cases. The stabilization method was selected according to the fracture pattern, bone quality and associated lesions. Bone graft was used in seven cases. Fibrin-glue was used in two cases. Unilateral hinged external fixators were used in addition in four cases. Functional assessment was done according to the scoring system of the Orthopedic Trauma Association and additional parameters taken from the system of Jupiter.

RESULTS: Final global results were excellent in 13 patients, good in 21, fair in four and poor in two. Complications included three non-unions, two heterotopic ossifications, two internal fixation failures and two lateral condyle resorptions (avascular necrosis).

DISCUSSION: Final results are related to the severity of the initial trauma, time elapsed between the accident and definitive surgery, associated lesions, bone quality, precise reconstruction of a smooth

and congruent joint surface, surgical technique, implants used, stability obtained and patient cooperation. The type, number and location of the osteosynthesis material must be selected according to the fracture pattern, bone quality and associated lesions.