

The Influence of Late Displacement in Distal Radius Fractures on Function, Grip Strength, Range of Motion and Quality of Life

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Introduction: Late displacement of distal radius fractures, still in acceptable radiologic position after 1-2 weeks, occurs in approximately one third of cases. We aimed to investigate the influence of late displacement on the functional outcome and quality of life at one year in non-operatively treated distal radius fractures.

Patients and Methods: One hundred and seventy five unilateral conservatively treated distal radius fractures with minimal displacement after 10-14 days were finally evaluated in the study. The cast was retained 4-6 weeks in total. Follow up included radiographs at 3 months and clinical examination 1 year after the fracture. Final radiographic parameters, grip strength, range of motion, QuickDASH, EQ-5D and pain VAS were evaluated with multivariate analysis.

Results: Late displacement occurred in 28% of the cases and was associated with loss of grip strength and range of motion. No significant differences were seen in the outcome questionnaires.

Conclusion: In this prospective multicenter study, the late displaced fractures had a significant reduction in ROM and grip strength. However, there does not seem to be any perceptible patient-reported change in function or disability. We think that DRFs should probably be followed for more than 2 weeks, at least in patients with initial displacement and high functional demands.