4223-A-2227

Delayed return to work after combined plating of distal radius fractures AO type C compared to volar plating: A secondary analysis of a randomized controlled study of 150 patients with one year follow-up

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Background

The DRF is the most common fracture among adults. Injuries have impact on daily living and work and can lead to pain and suffering for the individual patient and high costs for the society. The purpose was to evaluate delayed return to work after sick leave, comparing volar with combined plating.

Method

150 patients were randomized to volar locking plate (n=75) or combined plating (n=75) following a DRF AO type C (TriMed, Santa Clarita, CA, USA). In a secondary analysis, a subgroup analysis was performed including patients with employment. The 1-year follow-up included return to work, radiographic outcome, PRWE and QuickDASH.

Result

84 patients (median age 53 years) completed the 1-year follow-up. There was a statistic significant increased risk of delayed return to work in the combined plating group compared with the volar plating group. The odds of delayed return to work increased by 13.5% (95% CI 3,4 – 85,9%; p = 0,032). No difference was found in radiographic outcome between the treatment groups. The volar plate group had significantly better PRWE, QuickDASH scores compared with the combined plating group.

Conclusion

The risk of delayed return to work was significantly increased for patients treated with combined plating. Both operation methods resulted in similar radiographic outcome. Patients operated with combined plating had significantly inferior patient-reported outcome one year-postoperatively.