Delayed loading following repair of ruptured Achilles tendon – A randomized controlled trial

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Background The treatment of Rockwood type III/V acromioclavicular (AC) joint dislocations is debated. The objective of this prospective cohort study was to investigate the association between demographic, clinical, patient-reported and radiological variables at baseline/6w with the result after 3m, 6m and 1y.

Methods Inclusion criteria were patients aged 18–60 with acute AC joint dislocation and >50% superior displacement of the clavicle. Patients were treated non-surgically with 3m of home-based training and the option of delayed surgical intervention.

The primary outcome was the Western Ontario Shoulder Instability Index (WOSI). Secondary outcome was surgery yes/no. Patients were evaluated at baseline and 6w, 3m, 6m and 1y after the injury. Demographical, clinical, patient-reported and radiological variables were investigated for association with the outcomes. A model to identify patients at risk of surgery was suggested.

Results Ninety-five patients with Rockwood type III/V AC joint dislocation were included. Pre-injury participation in overhead/collision sports and reduced range of motion (ROM) at baseline were associated with reduced WOSI and increased risk of surgery. At 6w, reduced ROM, reduced WOSI and increased SPADI were associated with the outcomes. Radiological measurements were not associated with the result.

At 6w, all patients eventually requiring surgery could be detected with a sensitivity of 100% and a specificity of 94% based on a SPADI score>30 and a ROM<=140 degrees in flexion/abduction.

Conclusion ROM was the only factor consistently associated with both WOSI and risk of surgery. Six weeks after the injury, patients in need of surgery could be detected based on ROM and SPADI.