

Research Article

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Dual fixation for coracoid fracture with acute acromioclavicular joint disruption: A case series

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Abstract

Introduction: Management of concomitant coracoid fracture with acute acromioclavicular joint disruption has been a matter of debate. The coracoid component is not always radiographically recognized; thus, this combined orthopedic injury is not often common. Management options varied from conservative to surgical management with single or dual fixation strategy. This study aimed at outcome evaluation of clavicular hook plate with coracoid screw fixation in athletics and patients with high-demand activities for at least one year follow-up. **Material and methods:** Included patients underwent fixation through clavicular hook plate and coracoid screw. The hook plate was removed after an average period of 16.1 weeks, rehabilitation program was followed. Patients were subjected at final follow-up visit to clinical assessment via ROMs, constant, and ASES scores. Besides, radiological judgement of acromioclavicular joint reduction as per CCD and CCD ratio. **Results:** The average ASES Scores were 39.1 ± 14.6 , 67.4 ± 11.5 , and 86.7 ± 5.7 at 3, 6, and 12 months, respectively with a statistically significant improvement in between (P -value < 0.001). The mean active shoulder abduction and forward elevation ROMs were $156.4^\circ \pm 12.8^\circ$ and $171.4^\circ \pm 6.3^\circ$. The average CCD was 9.04 ± 0.9 mm (7.6-10.2 mm), and the mean CCD ratio was $1.07 \pm 0.03\%$ (1.01-1.11%). **Conclusion:** Dual fixation via hook plate and coracoid screw without CCL reconstruction provides a stable fixation construct with considerable functional and radiological outcome in high demand patients with acute traumatic ACJ disruption combined with coracoid fracture. **Study Design:** Case series study.

Keywords: Acromioclavicular joint, Coracoid, CCD, CCD ratio, Hook plate.