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SURGICAL MANAGEMENT OF TRAUMATIC ACROMIOCLAVICULAR JOINT DISLOCATIONS

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Traumatic dislocation of the acromial end of the clavicle, commonly referred to as acromioclavicular (AC) joint dislocation, is a frequent shoulder injury accounting for approximately 9% to 12% of all shoulder girdle injuries in athletic and active populations. The injury typically results from a direct fall onto the lateral aspect of the shoulder, leading to disruption of the acromioclavicular and coracoclavicular (CC) ligaments. While low-grade dislocations (Rockwood types I and II) are managed non-operatively, high-grade traumatic dislocations (Rockwood types IV, V, and VI) almost universally require surgical repair. The optimal management strategy for type III dislocations remains debated in the literature.

This study evaluated the clinical, radiological, and functional outcomes of surgical fixation in 38 adult patients presenting with acute, high-grade traumatic AC joint dislocations (Rockwood types III to V) treated between 2022 and 2025. Patients underwent either coracoclavicular reconstruction using suture-button loop constructs or temporary stabilization using a clavicular hook plate. Radiographic assessments were performed pre-operatively, immediately post-operatively, and at final follow-up (minimum 12 months) to evaluate CC distance and joint alignment. Functional outcomes were measured using the Constant-Murley Score (CMS) and the Disabilities of the Arm, Shoulder and Hand (DASH) score.

At final follow-up, 86% of patients demonstrated good to excellent functional recovery, with mean Constant scores exceeding 88 points. Patients treated with dynamic suture-button fixation achieved early motion with low complication rates, whereas hook plate fixation effectively maintained reduction in severely unstable cases but required a secondary procedure for hardware removal. Complications observed included transient shoulder stiffness, loss of reduction, and mild post-traumatic osteoarthritis in a minor subset of cases.

In conclusion, anatomical restoration and stable fixation of traumatic dislocations of the acromial end of the clavicle lead to favorable functional recovery and patient satisfaction. Early surgical

intervention combined with structured post-operative rehabilitation provides optimal outcomes in high-grade lesions, with technique selection tailored to patient age, activity level, and fracture-dislocation pattern.

Keywords: acromioclavicular dislocation, clavicle fracture, hook plate, ligament reconstruction, surgical outcomes.