



## 28. SURGICAL TREATMENT OF ACROMIOCLAVICULAR JOINT INJURIES

**Author:** Bolândău Luca; **Co-author:** Tulbure Vasile, Arabadji Dionis, Ratcov Serghei

**Scientific advisor:** Tulbure Vasile, PhD, Traumatology and Orthopedics

**Introduction.** Acromioclavicular joint (ACJ) injuries represent a challenge for modern medicine. ACJ injuries represent >40% of all shoulder injuries with an incidence of 9.2/1000 people a year. This review presents the results of coracoclavicular ligament plasty (CCLP) method using non-absorbable ultra-high molecular weight polyethylene double sutures.

**Aim of study.** Result analysis of surgical treated patients with coracoclavicular ligament plasty (CCLP) using durable and non-absorbable double suture.

**Methods and materials.** 48 patients with ACJ injuries Rockwood type III, IV and V were treated surgically using CCLP with ultra-high molecular weight polyethylene sutures.

**Results.** Patients age between 16 and 65 years old; 43 (89.6%) men and 5 (10.4%) women. Type III dislocation was noted in 24 (50.0%) cases, type IV- 18 (37.5%) and type V- 6 (12.5%) cases. 44 patients had surgery (91.7%) in first 7 days after injury. Surgical treatment was performed in 24 (50.0%) cases of type III dislocation. Only vertical instability was determined afterwards, horizontal stability was partially secured by deltoid and trapezius muscles. 18 (37.5%) patients with type IV had a CCLP with additional acromioclavicular stabilization for a 6 week period, due to a deltoid muscle trauma and to maintain anterior and posterior clavicle stability. In type V dislocations, collar bone was moved cranially >200%, deltoid and trapezius muscles desinsertion was determined intraoperative. Old traumas were determined in 4 (8.3%) cases: one patient- type III dislocation, 2 patients- type IV dislocation, one patient- type V dislocation. These patients were treated with acromioclavicular joint opening and acromioclavicular joint revision with scars removal. Intraarticular disc removal was performed in one patient. Systematic clinical assessment for 36 months after surgery was performed. Shoulder immobilization after surgery period was 28 days, hospitalization period was 6 days. Long distance complications: 3 cases (6.3%) pin tract infection type IV dislocation at a 3 week period, subluxation- 4 (8.3%). After 3 months, Taft score results were: very good- 10 (20.8%), good- 31 (64.6%), satisfying- 7 (14.6%). Constant and Murley score results were: very good- 8 (16.7%), good- 27 (56.3%), satisfying- 13 (27.1%).

**Conclusion.** CCLP with ultra-high molecular weight polyethylene double sutures has proven a good clavicle stability that doesn't need a reintervention for implant extraction. Very good and good results were obtained in type III dislocation, for type IV and V required additional acromioclavicular stabilization with percutaneous K-wire for a 6 week period. Long distance results were very good and good after Constant and Murley score, and Taft score.

**Keywords.** Acromioclavicular joint, dislocation, coracoclavicular ligament plasty, with ultra-high molecular weight polyethylene double sutures.