

# ARTHROSCOPIC RECONSTRUCTION OF THE ACROMIOCLAVICULAR JOINT

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**Introduction.** The injury of the acromioclavicular joint is a common problem in young and physically active young patients. As the result of the direct shoulder injury, the stabilizing structures of AC joint (CC – coracoclavicular ligament; AC – acromioclavicular ligament) are damaged causing pain and instability of AC joint.

**The aim of the study.** The aim of the study was retrospective evaluation of patients after arthroscopic reconstruction of the acromioclavicular joint.

**Material and methods.** The study involved 46 patients (41 men and 5 women) undergoing arthroscopic AC reconstruction during period of 2009-2015. The average age was 40 years (23-63; m: 47,2; f: 39). There were performed 48 AC joint reconstruction (43 primary operations; 5 revision operations; Two patients were re-operated).

Every patients reported shoulder injury in the past: a fall directly onto the shoulder (n=22), sport injury (n=8). The average time between: injury and first visit in the clinic – 77 days; injury and surgery – 83 days.

The main symptoms were pain (n=46; 100%), ACJ vertical or horizontal instability (n= 44; 95%), ROM limitations of shoulder joint (avg. flexion: 148°; avg. abduction: 146°; avg. external rotation: 60°). The grades of Rockwood classification: type I/II, n=2 (4%); type III, n= 36 (75%); type IV, n=6 (12%); type V, n=4 (8%).

The mean score of clinical evaluation, based on Shoulder Joint Evaluation Form was respectively: for UCLA score 15,5; SST score 3,7.

The ACJ reconstructions were performed using: S&N Endobutton (n=20); Arthrex Tight Rope (n=7); Artrex Dog Bone Button (n=13); Rota Lok (n=1); graft rope (n=2); palmaris longus or gracilis grafts (n=3); stabilization using LCP plate (n=1) or Kirschner wire (n=1).

**Results.** The mean time between surgery and postsurgical clinical evaluation was 76 days. 6 patients had a pain in acromioclavicular joint (without pain: n=40); 3 patients had ACJ instability (stable ACJ: n=43). The average ranges of motion were respectively: flexion 153°; abduction 150°; external rotation 45°. The mean score of clinical evaluation for UCLA score: 29,19 and SST score: 9,3.

Two patients required re-operation due to failure of the fixation. In the first case the endobutton suture sawed the front edge of the clavicle. In the second case the patient had re-injury with ACJ destabilization and Dog Bone suture rupture.

**Conclusions.** Arthroscopic reconstruction on of the acromioclavicular joint is safe and efficient treatment method with good cosmetic effect.