The treatment of acromioclavicular joint dislocation Tossy grade 3 with a clavicle hook plate

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Clavicle hook plate
AC luxation Tossy grade 3
Acromioclavicular joint dislocation grade 3

- Conservative or operative treatment?

- Retrospective study

- Operative treatment with a clavicle hook plate (AO, Mathys, Bettlach, Switzerland)

- Removal of plate after 3 months
Acromioclavicular joint dislocation: Surgical technique

- General anaesthesia, beach chair position
- 5 cm sagittal skin incision, medial to the AC joint
- Transverse incision of the muscular fascia
- Sutures on AC ligament and capsule
- Insert clavicle hook plate
- AC ligament and capsule pulled underneath plate
- Closure
Postop X-Ray
Acromioclavicular joint dislocation

- Retrospective study

- 12 patients: 11 males, 1 female

- 7 sport injuries, 3 falls, 2 RTA

- Mean age 33 years (19-42)
Acromioclavicular joint dislocation: Assessment

- Constant score and clinical examination (local joint tenderness and cross-over test)

- Standard bilateral AC joint X-ray, with and without 5kg stress load

- Mean follow up 20 months (9-36)
Acromioclavicular joint dislocation: Results

Mean Constant score
operated side 91.3 (79-99)
un-involved side 93.9 (85-100)

None with AC joint tenderness or positive cross-over test

7 patients with better or same Constant score as the un-involved side

2 patients with 5 points or less in difference

3 patients have more than 5 points differences
Acromioclavicular joint dislocations: Results

- Complications
  - 3 superficial wound infections, 3 humps on AC joint

- X-ray assessment
  - 11 patients with AC joint line asymmetry
  - 12 patients with degenerative changes
  - 2 patients with major AC ligament ossification
  - None have bone resorption
  - 8 patients with increased distance between clavicle and coracoid
  - 3 patients showed differences between stressed and non-stressed X-rays
Acromioclaviular joint dislocation: Results

- Nine excellent clinical results and three good results
- No major complications
- Important X-ray changes in all patients
- The clavicle hook plate is a convenient device with good short term clinical results and very low complication rate
Acromioclavicular joint dislocation: Questions

- Closure of the wound: sagittal versus longitudinal incision?

- Removal of hook plate after 3 months?

- Deterioration of good short term clinical results?

- Reconstruction or repair of the coracoclavicular ligaments?
FIN