SURGICAL OUTCOMES FOR TREATMENT OF CHRONIC ACROMIOCLAVICULAR DISLOCATION

A SYSTEMATIC REVIEW OF ANATOMIC & NONANATOMIC TECHNIQUES

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The authors have nothing to disclose.
A systematic review on surgical techniques for reconstruction of the acromioclavicular joint after chronic instability, showing a recent trend towards anatomical options, which appears to be supported by a superiority of the functional outcomes reported.
The Weaver-Dunn (WD) technique has been historically considered the standard for the treatment of chronic instability following acromioclavicular (AC) dislocation.

Despite the disseminated practice of several alternative surgical techniques, there is still no consensus or even robust evidence demonstrating the superiority of them.

**PURPOSE:** Hence, this systematic review aims to collect and compare the outcomes of the various reconstructive surgical techniques published in literature, comparing in particular anatomical and non-anatomical (mainly represented by the WD procedure) approaches.
Database searches: Pubmed, Scopus and Cochrane Library databases up to October 31th 2017

Key-words: “acromio-clavicular”, “acromioclavicular”, “chronic”, “dislocation”, “sprain”, “separation” and “instability”

Methodological quality: MINORS Scale for cohort studies

Level of evidence: set accordingly to the grading system of Oxford Centre Evidence-Based Medicine Levels of Evidence Working Group
28 studies comprising 771 patients

- Mean 36.6 yo
- Mean 38 months follow-up
- Symptoms of chronic instability of the AC joint for 16.3 months (3-39)
- 37 subgroups
  - Open (32) vs arthroscopically (5)
  - Anatomical (21) vs non-anatomical (15, WD or modifications of WD) techniques
Regardless the surgical technique, the minimal clinically important difference (MCID) of the Constant score was ALWAYS positively surpassed and most patients reported high satisfaction, with few failures (7.6%) or re-operation rates (4.7%).

More specifically, anatomical techniques seem to yield better functional outcomes, in spite of similar radiological outcomes when compared to non-anatomical techniques (no loss of reduction 70% vs 73%, subluxation 24% vs 21% and dislocation 6% vs 6%, respectively)

Most common complications:
- heterotopic ossification (n=63)
- AC arthrosis (n=42)
- superficial infection (n=35)
Today we see a trend towards anatomical reconstruction techniques, which appears to be supported by a superiority of the functional outcomes reported.
IT IS STILL NOT POSSIBLE TO DEFINITIVELY AFFIRM ANY TECHNIQUE AS SUPERIOR FOR RECONSTRUCTION OF THE AC JOINT IN CHRONIC INSTABILITY PATIENTS.

BOTH ANATOMICAL AND NON-ANATOMICAL TECHNIQUES SHOW SATISFACTORY RESULTS, WITH A LOW RATE OF FAILURES AND RE-OPERATIONS.

HOWEVER, COMPARATIVE STUDIES INCLUDED IN OUR REVIEW CONSISTENTLY REPORT SUPERIORITY IN FAVOR OF ANATOMICAL RECONSTRUCTION TECHNIQUES, ESPECIALLY REGARDING FUNCTIONAL OUTCOME MEASURES.