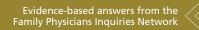
## **HELPDESK ANSWERS**



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# Q Surgery vs conservative management for AC joint repair: How do the 2 compare?

### **EVIDENCE-BASED ANSWER**

WHEN NOT CONSIDERING THE GRADE of acromioclavicular (AC) joint dislocation, both conservative and surgical management lead to positive outcomes, although surgically managed patients require more time out of work (strength of recommendation [SOR]: B, Cochrane review of low-quality randomized controlled trials [RCTs]).

For Rockwood grade III dislocations, surgical intervention provides a better cosmetic outcome but increases infection risk (SOR: **B**, meta-analysis of retrospective case series).

Consensus guidelines suggest conservative management for Rockwood grade I to II dislocations and surgical repair for Rockwood grade IV to VI dislocations (SOR: **C**, expert opinion).

# Similar outcomes, except when it comes to return to work

A 2010 Cochrane review of 2 RCTs and one quasi-randomized trial (174 patients, 93% male, moderate to high risk of bias) compared surgical intervention with conservative management of acute AC separations of unspecified Rockwood classification. Surgeries included coracoclavicular fixation with a cancellous screw or transfixation of the AC joint with Steinmann pins or Kirschner wires.

Conservative treatment included immobilization of the shoulder using an arm sling for 2 to 4 weeks. Patients were evaluated for a minimum of 12 months with a nonvalidated scoring system that measured pain, motion, and function or strength.

At one year, 63 of 76 patients (83%) in

the post-surgical group and 74 of 84 patients (88%) in the conservative intervention group had either good or excellent results with no significant difference in unsatisfactory outcomes (relative risk [RR]=1.49; 95% confidence interval [CI], 0.75-2.95). (Fourteen patients—7 in each group—were lost to follow-up.) Moreover, the review found no significant difference in treatment failures requiring a subsequent operation between the groups—11 of 83 (13%) surgical patients and 7 of 91 (8%) conservatively managed patients (RR=1.72; 95% CI, 0.72-4.12).

Notably, regardless of activity level, surgical patients consistently returned to previous work functions later than patients managed conservatively. The mean convalescence time ranged from 8 to 11 weeks for surgical patients and 4 to 6 weeks for conservatively managed patients (P<.05).

## A look at cosmetic results and risk of infection

A 2011 meta-analysis of 6 retrospective case series (379 patients, approximately 88% male) compared operative with nonoperative management in patients with acute, closed Rockwood grade III AC dislocations.<sup>2</sup> Operative techniques varied; nonoperative patients each received physiotherapy or rehabilitation therapy and most were treated with a sling. Patient follow-up varied from 32 months to 10.8 years.

Four of the included studies suggested that nonoperative management resulted in poorer cosmetic results (methods not defined) compared with the operative group

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(11 of 115 surgical patients [10%], 74 of 88 nonoperative patients [84%]; risk difference [RD]=-0.79; 95% CI, -0.92 to -0.66; number needed to harm [NNH]=>2).

Two of the studies evaluated the duration of sick leave and found a longer leave with operative management (50 operative and 54 nonoperative patients; mean difference=3.3; 95% CI, 2.1-4.5).

Five of the studies observed an increased risk of infection following operative management (8 of 175 [5%] operative patients compared with 0 of 152 [0%] nonop-

erative patients; RD=0.05; 95% CI, 0.01-0.09; NNH=20).

## Recommendations depend on the grade of the injury

The American College of Occupational and Environmental Medicine recommends against routine surgical repair for Grade III AC joint separations.<sup>3</sup> The College also recommends nonoperative management for patients with grade I to II AC dislocations and surgical repair for patients with grades IV to VI and select grade III AC dislocations.

#### References

- Tamaoki MJS, Belloti JC, Lenza M, et al. Surgical versus conservative interventions for treating acromioclavicular dislocation of the shoulder in adults. Cochrane Database Syst Rev. 2010;(8):CD007429.
- Smith TO, Chester R, Pearse EO, et al. Operative versus non-operative management following Rockwood grade III acromioclavicular separation: a meta-analysis of the
- current evidence base. J Orthopaed Traumatol. 2011;12: 19–27.
- Hegmann KT. Shoulder disorders. In: Occupational Medicine Practice Guidelines. Evaluation and Management of Common Health Problems and Functional Recovery in Workers. 3rd ed. Elk Grove Village, IL: American College of Occupational and Environmental Medicine: 2011:1-297.



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