



Letter to the Editor: the debate of rotator cuff surgery in the elderly is going on!

To the Editor:

We are pleased to see that there is attention for the issues concerning rotator cuff tears in the elderly. Especially the indication for surgery is still a controversial issue, and despite the currently available literature, this is a subject for ongoing debate. Therefore, we applaud Witney-Lagen et al¹⁹ for performing the study called “Do elderly patients gain as much benefit from arthroscopic rotator cuff repair as their younger peers?” to get more insight into rotator cuff surgery in the elderly. The authors concluded that rotator cuff repair in elderly patients can lead to similar, clinically relevant benefit.^{4,19} However, we have some comments regarding this study, and we think the conclusions of this study have to be drawn in light of these comments.

Unfortunately, as discussed by the authors, a limitation is that retear rates were not reported. Yet, higher retear rates may be expected in the elderly group.^{2,10,12} As reteared patients do not have substantially worse functional outcomes and pain,⁷ the effect of the rotator cuff repair itself (or at least the fixation of the cuff to the bone) can be questioned and the clinical improvement might also be attributable to other components of the treatment. For example, approximately half of the patients in both the younger and older groups had concomitant long head of biceps tenodesis or tenotomy, whereas the number of distal clavicle excisions is not reported. Obviously, these kinds of cointerventions can influence outcome as well. Even more importantly, mental health properties influence patient-experienced improvement.^{14,20}

When disregarding retear rates and solely looking at functional outcome, infraspinatus atrophy is an independent predictor of worse functional outcome.⁹ In the study by Witney-Lagen et al,¹⁹ no information on preoperative rotator cuff tendon quality on magnetic resonance imaging was provided. As such, it cannot be evaluated if the elderly group presented by the authors is a representative sample of the general population of patients aged 75 years and older having a symptomatic rotator cuff lesion. In the past, we thought that the acromioplasty was beneficial in the treatment of rotator cuff tendinopathy, whereas today we know that this surgery is not superior to physiotherapeutic treatment.^{1,13,16,17} Even

after failed physiotherapeutic treatment, acromioplasty does not provide clinical improvement.¹¹ To make any firm conclusions about the additive value of rotator cuff repair in the elderly, a randomized controlled trial with PROMs and cuff-related outcome measures should be undertaken in this population. Until now, randomized controlled trials have found only minimal to no clinical benefit of rotator cuff repair over bursectomy or physical therapy at the short term.¹⁵

In addition, the physiotherapy program is not described in detail by Witney-Lagen et al.¹⁹ The function of the rotator cuff is to dynamically stabilize the humeral head in the glenoid through the full range of arm movement in a direction-specific manner.¹⁸ When rotator cuff integrity is affected, joint position sense is altered.⁶ Important associated factors that interfere with this altered function are range of motion deficits and scapular inability to stabilize in time, to maintain the transferal of distal forces to the trunk. Therefore, the first stage of physiotherapy must address this neuromuscular function.

Even though the importance of deltoid muscle strength has been stressed in the treatment of (irreparable) rotator cuff tears, the restoration of neuromuscular function of the remaining rotator cuff in small, medium, and larger tears should be restored even before strength can be retrained.

Eventually, conservative treatment for rotator cuff tears is considered to be effective in 73% to 80% of the patients.⁵ In the study by Witney-Lagen et al,¹⁹ it is not reported how many patients were *successfully* treated nonoperatively and, as such, which proportion of the authors' entire rotator cuff tear population did not have surgery.

Jayakumar et al⁸ performed a systematic review and included 41 articles. These authors concluded that disability after upper extremity injury was most consistently associated with depression, catastrophic thinking, anxiety, pain self-efficacy, and pain interference. Social and demographic factors were also associated with disability. Measures of impairment such as range of motion and injury severity were least associated with disability. Coronado et al³ performed a systematic review and concluded that there are cross-sectional associations for emotional or mental health with function or disability and pain in patients with rotator cuff tears. Lower emotional or mental health function was associated with greater pain or disability or lower physical

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function at initial evaluation.³ Only 1 psychosocial factor (patient expectation) was associated with patient-reported postoperative outcomes in more than 1 study.³ Mental health may play an influential role in preoperative patient-reported pain and function more than tear characteristics in patients with full-thickness rotator cuff tears.^{14,20}

If the outcome of rotator cuff repair in elderly patients is similar to younger patients¹⁹ despite the reported higher retear rate, then not the repair itself, but the most important predictors for pain and disability may be the point of engagement. In other words, does the perioperative trajectory, including the postoperative rehabilitation with a physiotherapist, also address the emotional or mental health? This would be a totally different conclusion but based on the same data as collected by the authors and available in the literature. So, the debate is going on?

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