

de Witte PBV, Selten JW, et al. Calcific Tendinitis of the Rotator Cuff: A Randomized Controlled Trial of Ultrasound-Guided Needling and Lavage Versus Subacromial Corticosteroids. Am J Sports Med 2013;41:1665-1673.

Design: Randomized clinical trial

Study question: In the setting of calcific tendinitis of the rotator cuff, does the addition of ultrasound-guided needling and lavage (barbotage) to ultrasound-guided steroid injection improve clinical outcomes compared to ultrasound-guided steroid injection alone?

Reasons not to cite as evidence:

- A large number of outcomes are reported: VAS pain, Constant scores, Western Ontario Rotator Cuff Index (WORC), Disabilities of the Arm, Shoulder, and Hand (DASH), resorption rates, and frequency during followup of barbotage or surgery, and a number of followup measurements: 6 weeks, 3, 6 and 12 months
- However, it is not clear which of these was a primary outcome
- Multiple independent comparisons appear to have been made without statistical adjustment for the potential inflation of Type I error; that is, when several comparisons yield p values greater than 0.05 and one comparison yields a p value less than 0.05, the latter comparison has a greater than 5% likelihood of having arisen by chance
- A more relevant comparison would have been needling/lavage alone versus steroid injection alone, since an intervention which would avoid the need for a steroid injection would be more helpful than an intervention which still requires a steroid injection to have been done