

Cochrane Corner

Corticosteroids for shoulder pain

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Shoulder pain is a common source of distress. In two cross-sectional surveys based on patients registered with general practices, a prevalence of 11.7% and 15% respectively was found.^{1,2} Six previous reviews of the use of corticosteroid injections in shoulders have found conflicting results. A Cochrane review found that subacromial steroid injection was effective in improving range of abduction.³ That review did not examine outcomes in terms of complete remission. A Health Technology Assessment published in 1997 concluded that the evidence was less than compelling and reported numbers needed to treat of 33 that included a confidence interval including 'no benefit'. A third review felt that the evi-

dence was scarce and of poor quality. It did consider complete remission but did not pool the results.⁴ The fourth review reported that local corticosteroid injections were effective in rotator cuff tendonitis although was critical of the quality of many of the studies.⁵ There was no pooling of results. The fifth review was conducted by the same authors as the Cochrane review.⁶ They reported that subacromial steroids were better than placebo in improving the range of abduction. They did not examine complete remission. I consider complete remission a more important patient outcome than increases in range of motion or improvements on pain scales. The most recent review was a Cochrane

review by some of the same authors of the other Cochrane review.⁷ They concluded that the effect of subacromial steroids had a small benefit but again only considered continuous outcomes not complete remission. They also concluded that subacromial steroids were no better than non steroidal anti-inflammatory medication (NSAID). In work done by Dr Felicity Goodyear-Smith and myself we found the numbers needed to treat (NNT) for the statistically significant studies was 1.4 to 1.6 patients to get one remission for corticosteroid versus placebo. The NNT for corticosteroids vs NSAID was 2.5. This suggests that corticosteroids are an effective treatment for shoulder pain.

Table 1. Corticosteroids for shoulder pain

	Short term success	Long term success	Evidence	Advantages	Disadvantages
Green et al ³ Subacromial injections	Improved range of movement	Not examined	Cochrane review	Effective	Potential risk of tendon rupture but some commentators feel that if injection is not into the tendon then the risks are exaggerated
Goodyear-Smith ⁸ Subacromial injections	Effective NNT 1.4 to 1.6	Effective to 38 weeks but not 104 weeks	Systematic review ⁸	Highly effective	Risks see above
Goodyear-Smith ⁸ Steroid vs NSAID	Effective NNT=2.5	Insufficient details	Systematic review ⁸	Corticosteroid more effective than NSAID	Risks see above
Goodyear-Smith ⁸ Steroid vs placebo for frozen shoulder or intra-articular steroid for shoulder pain or frozen shoulder	Insufficient evidence	Insufficient evidence			

NNT = numbers needed to treat for one remission; NSAID = non steroidal anti-inflammatory drugs; Steroid = corticosteroid

References

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8. Goodyear-Smith F, Arroll B. Recommendations regarding effectiveness of corticosteroid injections into shoulder, knee and ankle joints in relation to injury-related conditions: Report to the Accident Rehabilitation and Compensation Insurance Corporation. University of Auckland March 2003.

Members of the Royal New Zealand College of General Practitioners can have access to the full reviews by contacting Cherylyn Pearson at the College in Wellington. For the access codes to the Cochrane library contact cpearson@rnzcgp.org.nz at the College.