

Therapeutic effects of hyaluronate injections in patients with chronic painful shoulder: A meta-analysis of randomized controlled trials.

Saito S, Furuya T, Kotake S.

Objective. To elucidate the therapeutic efficacy and safety of injection of hyaluronate (HA) for chronic painful shoulder.

Methods. The meta-analysis comprised randomized controlled trials (RCTs) that compared the efficacy of HA injections with that of a placebo. Articles were retrieved through systematic searches of databases, including Medline, EMBase, and Japana Centra Revuo Medicina. The outcome end points were classified into 5 categories: pain, shoulder range of motion (ROM), total functional score, comparison between HA and steroid injections, and HA safety. The primary outcome measures of the efficacy of HA injections were the standardized mean differences (SMDs) and the relative risk (RR) or odds ratio (OR) between HA and placebo groups.

Results. Nineteen RCTs (2,120 participants) were pooled for the meta-analysis. Injection of HA can decrease symptoms of chronic painful shoulder. An improvement was found in pain outcomes (SMD 0.39; 95% confidence interval [95% CI] 0.26, 0.53 and OR 1.84; 95% CI 1.49, 2.26) and total functional scores (SMD 0.36; 95% CI 0.01, 0.71), with few adverse events (RR 1.01; 95% CI 0.57, 1.77). Improvement in shoulder ROM was not effectively achieved. HA injection was modestly more effective than steroid injection, as estimated by the total functional score (SMD 0.36; 95% CI 0.02, 0.70), which indicated a likely benefit of injection of HA over steroid injection.

Conclusion. This meta-analysis confirms that HA injection is effective in relief of pain and is a safe alternative therapy for chronic painful shoulder.

References

Arthritis Care Res (Hoboken). 2010 Jul 8;62(7):1009-18.