



Australian Association of Musculoskeletal Medicine

Prolotherapy injections for chronic low-back pain - Review.

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Cochrane Database Syst Rev 2004;2:CD004059.

BACKGROUND: Prolotherapy is an injection-based treatment for chronic low-back pain. Proponents of prolotherapy suggest that some back pain stems from weakened or damaged ligaments. Repeatedly injecting them with irritant solutions is believed to strengthen the ligaments and reduce pain and disability. Prolotherapy protocols usually include co-interventions to enhance the effectiveness of the injections.

OBJECTIVES: To determine the efficacy of prolotherapy injections in adults with chronic low-back pain.

MAIN RESULTS: We included four high quality studies with a total of 344 participants. All trials measured pain and disability levels at six months, three measured the proportion of participants reporting a greater than 50% reduction in pain or disability scores from baseline to six months. Two studies showed significant differences between the treatment and control groups for those reporting over 50% reduction in pain or disability. Their results could not be pooled. In one, co-interventions confounded interpretation of results; in the other, there was no significant difference in mean pain and disability scores between the groups. In the third study, there was little or no difference between groups in the number of individuals who reported over 50% improvement in pain and disability. The fourth study reporting only mean pain and disability scores showed no differences between groups.

REVIEWERS' CONCLUSIONS: There is conflicting evidence regarding the efficacy of prolotherapy injections in reducing pain and disability in patients with chronic low-back pain. Conclusions are confounded by clinical heterogeneity amongst studies and by the presence of co-interventions. There was no evidence that prolotherapy injections alone were more effective than control injections alone. However, in the presence of co-interventions, prolotherapy injections were more effective than control injections, more so when both injections and co-interventions were controlled concurrently.