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# Hypertonic dextrose injections (prolotherapy) in the treatment of symptomatic knee osteoarthritis: A systematic review and meta-analysis

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Affiliations

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## Erratum in

[Erratum: Hypertonic dextrose injections \(prolotherapy\) in the treatment of symptomatic knee osteoarthritis: A systematic review and meta-analysis.](#)

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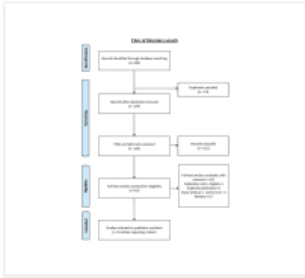
Sci Rep. 2017 Apr 7;7:45879. doi: [10.1038/srep45879](#).

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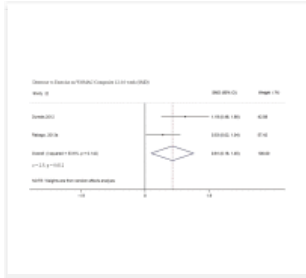
## Abstract

Hypertonic dextrose injections (prolotherapy) is an emerging treatment for symptomatic knee osteoarthritis (OA) but its efficacy is uncertain. We conducted a systematic review with meta-analysis to synthesize clinical evidence on the effect of prolotherapy for knee OA. Fifteen electronic databases were searched from their inception to September 2015. The primary outcome of interest was score change on the Western Ontario and McMaster Universities Arthritis Index (WOMAC). Three randomized controlled trials (RCTs) of moderate risk of bias and one quasi-randomized trial were included, with data from a total of 258 patients. In the meta-analysis of two eligible studies, prolotherapy is superior to exercise alone by a standardized mean difference (SMD) of 0.81 (95% CI: 0.18 to 1.45,  $p = 0.012$ ), 0.78 (95% CI: 0.25 to 1.30,  $p = 0.001$ ) and 0.62 (95% CI: 0.04 to 1.20,  $p = 0.035$ ) on the WOMAC composite scale; and WOMAC function and pain subscale scores respectively. Moderate heterogeneity exists in all cases. Overall, prolotherapy conferred a positive and significant beneficial effect in the treatment of knee OA. Adequately powered, longer-term trials with uniform end points are needed to better elucidate the efficacy of prolotherapy.

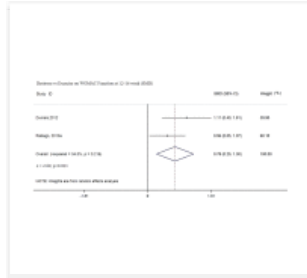
## Figures



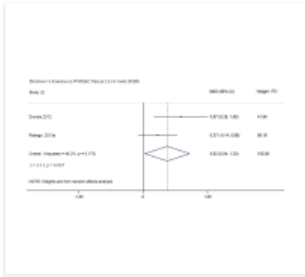
**Figure 1. Flow of literature search.**



**Figure 2. Dextrose vs Exercise on WOMAC...**



**Figure 3. Dextrose vs Exercise on WOMAC...**



**Figure 4. Dextrose vs Exercise on WOMAC...**

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