

Methotrexate reduces pain in hand osteoarthritis with synovitis

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For patients with hand osteoarthritis and synovitis, methotrexate has a

potentially clinically meaningful effect on reducing pain, with no increase in adverse events, according to a study published online Oct. 12 in *The Lancet*.

Yuanyuan Wang, Ph.D., from Monash University in Melbourne, Australia, and colleagues conducted a randomized, placebo-controlled trial involving participants aged 40 to 75 years with hand osteoarthritis and [magnetic resonance](#) imaging-detected synovitis of grade 1 or more. Participants were randomly assigned to receive [methotrexate](#) 20 mg or identical placebo once weekly for six months (50 and 47 patients, respectively).

The primary outcome was pain reduction in the study hand at six months; 84 and 85 percent of participants in the methotrexate and placebo groups, respectively, provided primary outcome data.

The researchers found that the mean change in visual analog scale [pain](#) at six months was –15.2 mm in the methotrexate group and –7.7 mm in the [placebo group](#), with a mean between-group difference of –9.9 and effect size of 0.45. Adverse events occurred in 62 and 60 percent of participants in the methotrexate and placebo groups, respectively.

"These results support a potential role for methotrexate in the management of hand osteoarthritis with an inflammatory phenotype and highlight the importance of participant selection when testing therapies for hand osteoarthritis," the authors write.

More information: Yuanyuan Wang et al, Methotrexate to treat hand osteoarthritis with synovitis (METHODS): an Australian, multisite, parallel-group, double-blind, randomised, placebo-controlled trial, *The Lancet* (2023). [DOI: 10.1016/S0140-6736\(23\)01572-6](https://doi.org/10.1016/S0140-6736(23)01572-6)

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