

## Letter to the Editor: Does Vitamin D Improve Osteoarthritis of the Knee: A Randomized Controlled Pilot Trial

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*To the Editor,*

We read the article entitled “Does Vitamin D Improve Osteoarthritis of the Knee: A Randomized Controlled Pilot Trial” by Sanghi et al. [3] with great interest. We believe this randomized controlled trial will add new evidence to evaluate the clinical efficacy of vitamin D for knee osteoarthritis.

We have different opinions regarding the study by Sanghi et al. The study authors selected patients with osteoarthritis and insufficient vitamin D, but they concluded that vitamin D benefitted all patients with knee osteoarthritis. Therefore, Sanghi and colleagues should mention in their conclusion that vitamin D may benefit patients with knee osteoarthritis, especially those with

insufficient vitamin D. Whether vitamin D is effective for all knee osteoarthritis patients requires more randomized controlled trials on a broader patient population than was studied by Sanghi et al. Second, as the authors indicated, the 1-year followup time for patients was a little short. To draw a more robust conclusion, longer followup is necessary. Third, original characteristics of patients including race, occupation, and bone density should be considered as baseline data because these factors may influence the outcomes. Along a similar line, it would be important also to consider the grade of knee osteoarthritis (Kellgren-Lawrence Grade) as a potentially important variable, because different grades of knee osteoarthritis may have different outcomes. Finally, we submit that safety monitoring is essential during the entire process, as hypervitaminosis D may cause systematic complications.

A controversy exists regarding the clinical efficacy of vitamin D for knee osteoarthritis. The conclusions from the present study [3] differ from those of a recently published randomized controlled trial by McAlindon et al. [2]. Several factors may account for the differences. First, the inclusion and exclusion criteria of the two studies, as well as the treatment strategies, differed between the two studies. Second, the outcome measures and followup time were different. We suggest that future studies consider standardizing inclusion and exclusion criteria, treatment strategy, outcome measures, and followup time in order to obtain more reliable conclusions. An updated systematic review [1] based on two randomized controlled trials and 13 observational studies indicated that 25-(OH) D was associated with structural changes of knee osteoarthritis more than symptoms. It seems reasonable to believe that vitamin D can slow osteoarthritis progression, but more high quality randomized controlled trials are required before we can make that claim with confidence.

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(Re: Sanghi D, Mishra A, Sharma AC, Singh A, Natu SM, Agarwal S, Srivastava RN. Does Vitamin D Improve Osteoarthritis of the Knee: A Randomized Controlled Pilot Trial. *Clin Orthop Relat Res.*2013; DOI: 10.1007/s11999-013-3201-6.)

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