

LETTERS

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Exploring the results of a pilot study on the combination of exercise therapy and analgesics for the treatment of osteoarthritis patients with severe pain: comment on the article by van Tunen et al

To the Editor:

We read with great interest the feasibility study done by van Tunen et al, recently published in *Arthritis Care & Research* (1). Enabling exercise therapy for osteoarthritis (OA) patients with severe pain is an important and clinically relevant issue that can increase the quality of life for these patients. Exercise therapy has been shown to be the most effective nonpharmacologic therapy for OA patients to improve function and reduce pain (2). The reality is that patients with high levels of pain and severe functional limitations are often unable to perform these exercises. Therefore, we applaud this study for its combination of incremental analgesia and exercise therapy, as no multidisciplinary strategy has been previously discussed to help this subgroup of patients. The authors concluded that the combined intervention of standardized analgesics and exercise therapy allows most patients with knee OA and severe pain to participate in exercise therapy, which leads to a reduction of pain and activity limitations. However, some questions remained after reading the article.

First, the authors report that 40.8% of their patient group had a Kellgren/Lawrence grade of 0 or 1 (no or doubtful OA), but at the same time all these patients had a clinical diagnosis of OA and a numerical rating scale score of ≥ 7 . Therefore, one might suggest that these patients had isolated OA in the patellofemoral joint. Unfortunately, the authors do not report on the presence of patellofemoral OA. Since patients with severe radiographic signs of tibiofemoral OA at baseline were reported to have worse adherence to the exercise program (1), this lower adherence might suggest the current strategy is most suitable for subjects with patellofemoral OA and not for subjects with tibiofemoral OA. As the authors indicated, “it seems important to select those patients who are most likely to benefit from this intervention,” and discriminating between distinct tibiofemoral and patellofemoral OA patient groups could even further increase the clinical relevance of this study. Do the authors have any data available that could help to differentiate between tibiofemoral and patellofemoral OA in these patients?

Second, the present study was designed as a feasibility study. The authors discuss the feasibility of the present protocol, using the patient’s adherence as their main focus, which can be influenced by the methods of inclusion. Additionally, the feasibility of the present study design and the generalizability of the results are highly dependent on the patient recruitment. The authors do not report the number of patients

that were screened before including the final 49 participants. To make optimal use of this pilot study, the number of subjects coming from the different recruitment strategies would be very informative for future trial design. We hope the authors are willing to discuss our comments on patellofemoral OA and patient inclusion within their feasibility study.

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1. Van Tunen JA, van der Leeden M, Bos WH, Cheung J, van der Esch M, Gerritsen M, et al. Optimization of analgesics for greater exercise therapy participation among patients with knee osteoarthritis and severe pain: a feasibility study. *Arthritis Care Res (Hoboken)* 2016;68:332–40.
2. Fransen M, McConnell S, Harmer A, van der Esch M, Simic M, Bennell K. Exercise for osteoarthritis of the knee. *Cochrane Database Syst Rev* 2015;1:CD004376.

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Reply

To the Editor:

We appreciate Eijkenboom and Runhaar’s interest in our article. Their comments are important in the process of clinical decision-making, and we would like to expand on this topic.

The first comment by Eijkenboom and Runhaar was “Do the authors have any data available that could help to differentiate between tibiofemoral and patellofemoral osteoarthritis in these patients?” Although the grade of patellofemoral OA was not reported in our article, we do have information on patellofemoral OA in our database. We have graded joint space narrowing (JSN), osteophytes, sclerosis, and cysts of the patellofemoral joint for the 49 included patients. Radiographs of the patellofemoral joint were made using a single weight-bearing sagittal (mediolateral) view in 30° flexion, and a nonweight-bearing skyline (inferior-superior) view in 30° knee flexion (1,2). The mediolateral and skyline radiographs of the patellofemoral joint were scored according to Burnett et al (3) by 2 independent raters. For JSN and osteophyte formation, 0–3 scales were used (where 0 = no JSN, 1 = minute JSN, 2 = definite JSN, and 3 = severe JSN; and 0 = no osteophyte, 1 = minute osteophyte, 2 = definite osteophyte of moderate size, and 3 = large osteophyte). For sclerosis and cysts, a 0–1 scale was used (where 0 = absent and 1 = present).

Data regarding the knee with the most severe patellofemoral OA were reported. A total of 30.6% of the patients showed patellofemoral JSN (score ≥ 2). In 34.7% of the patients, osteophytes of the patellofemoral joint were present. Sclerosis and cysts were present in 24.5% and 36.7% of the patients, respectively.