Comment on "Effectiveness of Radiofrequency Ablation of the Genicular Nerves of the Knee for the Management of Intractable Pain from Knee Osteoarthritis"

To the Editor:

We read with great interest the article by Lee et al (1) titled "Effectiveness of radiofrequency ablation of the genicular nerves of the knee for the management of intractable pain from knee osteoarthritis". In the light of current literature, the article is found to be noteworthy. There is a remarkable emphasis on the choice of blocking the genicular nerves for control of pain originating from the anterior part of the knee joint. The treatment response depends primarily on the correct localization of pain. Therefore, decision making on selecting genicular nerves as target, requires individualized approaches when genicular nerves thought to be responsible for the knee pain, which is consistent with a recent study (2). However, we would like to address some potential concerns particularly about study design and statistical analysis.

The section titled "Patients" contains complex phrases about the nature of the study (prospective/retrospective) and informed consent that needs to be clarified.

The definition of ≥ 50% pain reduction in pain intensity from baseline value at 6 months after the treatment as a successful treatment outcome is not reused in the rest of the text.

The basis of classification of patients into 2 groups with numeric rating scale (NRS) 6 or NRS ≥ 7 should be explained. A research determining cut-off points on NRS in patients with chronic musculoskeletal pain showed that NRS scores ≤ 5 correspond to mild, scores of 6–7 to moderate and scores ≥ 8 to severe pain, and that cut-off points are affected by catastrophizing tendency (3). Also, comparing of groups containing one value and multiple values may lead to bias.

There is a semi-quantitative scoring tool for knee osteoarthritis called MRI Osteoarthritis Knee Score (MOAKS) by Hunter et al (4). It would have been more practical to use MOAKS instead of developing a new MRI grading system that consists of the same criteria except for subchondral cyst. And considering that not every patient with knee osteoarthritis has a magnetic resonance imaging, radiographic correlation with Kellgren-Lawrence scale could have contributed more.

There is a discrepancy in the number of cases. In Tables 2 and 3, the total number of cases in the rows "Hyaline cartilage defect tibia (P)" is 53, but the total sample size is stated to be 50. Most importantly, the lack of regression analysis and limited results about within/between group variation over time, require review of statistical analysis.

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