LETTER TO THE EDITOR

Comment on "Efficacy of duloxetine and gabapentin in pain reduction in patients with knee osteoarthritis"

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I read with intense attention the important study evaluating the efficacy of duloxetine and gabapentin in patients with knee osteoarthritis by Enteshari-Moghaddam et al. [1]. This three-arm (i.e., duloxetine, gabapentin, and acetaminophen) study contributes to the knowledge on pharmacological treatments of knee osteoarthritis [1]. I would like to comment on the study's conclusion and also ask for clarification of discrepancy of the severity of osteoarthritis in patients included in the study [1].

The study concluded that "Both gabapentin and duloxetine have similar and acceptable effects …" [1]. It seems that the interpreting of the similarity between gabapentin and duloxetine was not corroborated by the statistical analysis of the data because the study did not perform equivalence analysis to determine whether gabapentin and duloxetine are similar. Instead, the study analyzed the data to identify whether the treatments were superior to each other; and the study found that gabapentin or duloxetine was superior to acetaminophen, with no significant difference (superiority) between gabapentin and duloxetine at 3 months [1]. The CONSORT (consolidated standards of reporting trials) statement for non-inferiority and equivalence trials clearly states, "Failure to show a difference does not mean they are equivalent. By contrast, equivalence trials aim to determine whether one (typically new) intervention is therapeutically similar to another (usually an existing) treatment" [2]. However, the study did not aim to demonstrate whether gabapentin and duloxetine have similar efficacy by equivalence analysis; so that the conclusion of similarity was not based on data analysis.

There was a discrepancy of the severity of osteoarthritis in patients included in the study. The abstract and methods stated, "moderate to severe knee OA" and "Kellgren-Lawrence score of III to IV (moderate to severe)"; however, Table 1 presented as "Kellgren-Lawrence score of II and III" [1]. Although I acknowledge that this discrepancy might be probably resulted by a typographical or printer's error, I believe that the severity of osteoarthritis requires to be clarified.

Compliance with ethical standards

Conflict of interest None.

References

1. Enteshari-Moghaddam A, Azami A, Isazadehfar K, Mohebbi H, Habibzadeh A, Jahanpanah P (2019) Efficacy of duloxetine and gabapentin in pain reduction in patients with knee osteoarthritis. Clin Rheumatol. https://doi.org/10.1007/s10067-019-04573-7
2. Piaggio G, Elbourne DR, Pocock SJ, Evans SJ, Altman DG, CONSORT Group (2012) Reporting of noninferiority and equivalence randomized trials: extension of the CONSORT 2010 statement. JAMA 308:2594–2604

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