Reviewer’s report

Title: Correlation between metabolic syndrome and knee osteoarthritis; data from the Korean National Health and Nutrition Examination Survey (KNHANES)

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Reviewer: Altan Onat

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This revised manuscript concerning the association of knee osteoarthritis with MetS and its components among Koreans is improved but still needs better analysis and improved interpretation in order to reach a valid and informative conclusion.

The critical issue is whether knee osteoarthritis is associated with WC alone (in which case the link might be largely via mechanical effects) or with MetS as well (for which WC mediates). In this instance support for the role pro-inflammatory state may be provided. Therefore, you might analyze and present findings in Table 3 as follows.

Please, omit the column with unadjusted ORs. Stratify to gender Models 1 and 2. Model 1 should exclude the components of MetS, preferably replacing these with body height (per increment of 6 cm), and seeking the age-adjusted OR of MetS in women compared with men. In Model 2, MetS itself needs deletion, since the OR of the individual components independent of the adjusted confounders is sought.

Findings, discussion and conclusion then should state (if found so) that knee osteoarthritis is, indeed, linked to MetS via the mediation of WC.

Numerous linguistic and grammar mistakes still await correction.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

No