Reviewer's report

Title: Association of vitamin D2 and D3 with Type 2 diabetes complications

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Reviewer: Fernando Abdulkader

Reviewer's report:

The study aims at addressing a timely and interesting question, whether vitamin D serum levels correlate with diabetic complications. Despite that the results are very limited, and a number of issues preclude the manuscript to be acceptable for publication in its present form:- the authors state that all individuals were taking a weekly dose of vitamin D, but for how long before the measurements were taken? If all subjects being studied were taking supplements, and one does not know how long have the subjects been taking supplemmentation, no inference as to protection by vitamin D or of mere difference in vitamin D absorption by the different groupd can be established.- on the diabetic patients - important information on them is lacking, such as years of diagnosis prior to the enrollment in the study- no analysis controlling for age seems to have been performed. This is particularly important since controls were family members of the diabetics, who supposedly share the same household/living standards, but differ from them by being younger- on table 2, number of patients starting from row #2 don't add up to 274, which the authors state was the number of diabetic patients. Why?- a vert important study by Pittas et al., NEJM 2019 showed that vitamin D supplemmentation had no positive effect to reduce de risk for diabetes. However, the study reviewed here does not discuss that, using rather older references to justify their study (for instance in the initial paragraph of introduction)

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I recommend additional statistical review

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