Reviewer's report

Title: Lower Vitamin D Levels in Saudi Pregnant Women are Associated with Higher Risk of Developing GDM

Version: 1 Date: 15 Nov 2016

Reviewer: Folami Ideraabdullah

Reviewer's report:

Paper description:
The paper by Al-Ajlan et al entitled "Lower vitamin D levels in Saudi pregnant women are associated with higher risk of developing GDM" investigates whether vitamin D levels are associated with gestational diabetes occurrence in a population of Saudi women. They report high rates of GDM and vitamin D deficiency (82.5%) in this population and higher risk of GDM among vitamin D deficient women.

Review summary:

Overall, paper is an interesting addition to the field is relatively straightforward and provides useful anthropometric values for this population. Having disease risk association for different populations is important for global health.

Major comments

1. Figure 1 is not included in the manuscript therefore unable to review fully

2. In Table 2 the BMI is also significantly different between the groups. Please comment on the fact that vitD def is also associated with BMI and the potential to be a confounder in this study.

Minor comments:

3. The abstract states that the fact that 116 of 419 participants were diagnosed with GDM "This suggested a 2.87 fold higher risk of development of GDM among vitamin D deficient…" It is not clear how this latter conclusion is related to the former result. Please reword.
4. It is probably more appropriate to use the term "nonGDM" rather than "normal" since there may always be other unidentified confounders or disease states not listed here.

5. Table 1 is not necessary as these numbers are easy to list in the text.

6. Any discussion of why the rate of GDM in this cohort (or in Saudi population as a whole) is so high (>28%) would be helpful. In addition the high rate of vitamin D deficiency should be discussed further.

7. I suggest that the data from "comparison of maternal and biochemical parameters of GDM women with normal women" should be put in a table. Very difficult to read in the text.

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

Yes

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

Yes

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

Yes

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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Please indicate the quality of language in the manuscript:

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