Reviewer’s report

Title: The Association of vitamin D status and fasting glucose according to body fat mass in young healthy Thais

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Reviewer: Michael Holick

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1. The authors have nicely documented vitamin D status in a working environment in Thailand demonstrating significant vitamin D deficiency. It is however unclear how meaningful the conclusion is regarding vitamin D status and fasting blood glucose levels since there was a positive association only in the group that had the lowest 25-hydroxyvitamin D levels. This could be simply a statistical fluke rather than being physiologically meaningful. Were these blood samples taken at the same time of the year? Was there a seasonal variation in 25-hydroxyvitamin D levels and more importantly fasting blood glucose levels?

2. There is a wide range for BMI. Since the authors have a relatively large number of subjects it would be of interest to plot BMI with 25-hydroxyvitamin D and fasting blood glucose.

3. It is doubtful that this study is contrary to most studies regarding vitamin D status and diabetes since having a higher fasting blood glucose in the normal range is not necessarily related to increased risk for type 2 diabetes. This needs further explanation. Did the authors observe higher blood sugar levels in subjects who had metabolic syndrome or type 2 diabetes? Were they excluded from this study?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests