Reviewer's report

Title: Weak grip strength unveils vitamin D deficiency A cross-sectional study of pregnant and newly pregnant women in Sweden

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Reviewer: Michael Holick

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1. It is perplexing recording the conclusion drawn from this study. It is well documented in the literature that time from sitting to standing position and walking 8 feet is markedly increased in men and women who are vitamin D deficient as reported by Bischoff-Ferrari et al AJCN 2006; 84:18. It is also well documented that vitamin D deficiency is associated with proximal muscle weakness. Indeed these investigators observed that the women who were most vitamin D deficient could not stand up without assistance. Thus to suggest that only grip strength was associated with vitamin D deficiency is inconsistent with both the literature and their observations.

2. To suggest a handshake can help identify severe vitamin D deficiency is without merit since they provide no evidence for this. They would need to do a study blinded and shaking hands of women and relating this to their blood level of 25-hydroxyvitamin D. The title should be changed.

3. Sunlight converts 7-dehydrocholesterol to vitamin D3. It is not 7-deoxy cholesterol

4. The manuscript is poorly referenced especially regarding vitamin D and muscle strength. Also it is poorly referenced regarding the effect of latitude and clothing on cutaneous production of vitamin D.

Level of interest: An article whose findings are important to those with closely related research interests

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:

none