Reviewer’s report

Title: Changes of Serum 25(OH) D3 and IGF-1 Levels in Patients with Thyroid Nodules

Version: 0 Date: 30 Jan 2019

Reviewer: Pavlina Andreeva-Gateva

Reviewer's report:

Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.

This is a very interesting study on a possible link among the serum 25(OH) D3 and IGF-1 levels and thyroid nodules. Although both D3 and IGF-1 being in the systemic circulation, Authors do not provide a plausible suggestion about their role in a locally occurred pathology, but they performed logistic regression analysis and discovered lower incidence in serums with higher level of D3 and IGF-1. The aim of their work has to be explained. As they mention, 50-60% of the healthy population has thyroid nodules. So, why to suggest D3 supplementation for such conditions? Authors have to discuss the limitation of their study too.

Subjects were evaluated from June to December. But, there is also seasonal variation in the D3 level. Does this fact taken into account?

The title of the tables have to reflect exactly the statistical methods and results which are displayed.

Authors use interchangeably "incidence"and "prevalence", but they means different things. Example: p. 9 "The incidence of thyroid nodules was significantly decreased in Q1 group to Q4 group."But in the figures 1 and 2 there is "prevalence", not incidence". Please, be sure to use the exact term.

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 am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal