Reviewer’s report

Title: Serum Zinc-α2-glycoprotein levels are elevated and correlated with thyroid hormone in newly diagnosed hyperthyroidism

Version: 1 Date: 23 Jul 2018

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER COMMENTS: To view the full report from the academic peer reviewer, please see the attached file.

REVIEWER COMMENTS FROM REPORT: The study describes the changes in serum zinc-alpha2-glucoprotein and its correlation with lipid metabolism and thyroid hormones in hyperthyroid patients compared to controls. In addition, a subgroup of hyperthyroid patients treated with methimazole were compared on similar parameters pre and post methimazole treatment.

The overall study design is simple and answers the research question appropriately. The anthropometric and biochemical changes in hyperthyroid subjects compared to controls and compared to post treatment state are well-known in the literature. The authors correlated the ZAG protein changes with these changes. The correlations between ZAG protein and TH and other clinical parameters appear weak, with r correlation coefficients in the 0.2-0.4 range, based on figure 1.

Based on the results presented, the authors speculated that the elevated ZAG levels might partly contribute to lipids disorders in patients with hyperthyroidism. I find this statement baseless as the results of the study is only associative and does not prove causation. Some explanation on the potential clinical implications for this association in hyperthyroid management might be helpful as well.

REQUESTED REVISIONS:
Figure 2 is difficult to understand. I suggest the authors revise this figure to use a graphical presentation that is easier for the general reader to understand or further explain the figure in the text. Add in the potential clinical implications of the findings in the study.

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.  

Not relevant to this manuscript

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

Acceptable

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