Author’s response to reviews

Title: Association between thyroid hormones and the components of metabolic syndrome

Authors:

Jieun Chang (jieun99@yuhs.ac)
Youngsook Kim (yk52@iupui.edu)
Jaeyong Shin (DRSHIN@yuhs.ac)
Sang Ah Lee (ivory0817@yuhs.ac)
Young Choi (CHOIYOUNG223@yuhs.ac)
Eun-cheol Park (ecpark@yuhs.ac)

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Association between thyroid hormones and the components of metabolic syndrome

We thank you for giving us the opportunity to revise our paper. In revising our paper, we have carefully considered the reviewers’ comments and suggestions, and have done our best to incorporate them accordingly. We appreciate the constructive feedback on our original submission. After addressing the issues raised, we feel that the quality of the paper has improved and we hope you agree. Our responses to each comment are listed below. We have attached revision notes and underlined the revised sections of the manuscript. Once again, thank you for the valuable and helpful comments.

In addition, during checking the article and SAS code, there is confusion that we did not convert the unit ("cm" into "inches") in presenting estimates of waist circumference. We really apologize for this mistake. We corrected the estimates of waist circumference in inches in table 2, table 3, appendix table 1 and appendix table 2 during revision. Once again, we sincerely apologize for the mistake.
Response to Reviewer #1’s comments

Bee Tan (Reviewer 1): The authors perform a study, using appropriate methodology, which will contribute to the literature and will have particular impact on the Korean population.

Response

Thank you for your great comments.

Response to Reviewer #2’s comments

Major comments

Katarzyna Ziemnicka (Reviewer 2): These are good and interesting studies and well written paper. I have only few comments: check if some prepositions were used in a proper way and there are also few misspellings (see tables); please place an info what does it mean: "β" in the tables describing statistical results (so I suppose: standardized regression coefficient) and "S.E." (standardized error of a correlation coefficient).

Response

Thank you for your valuable suggestion. Based on your advice, I inserted the explanations of "β" and "S.E." into results part ("β" presents standardized regression coefficient and "S.E." presents standardized error of a correlation coefficient). If our revision is not appropriate, please give us comments as that would be really helpful for us. I really appreciate your advice on improving the paper.

Major comments

I have also one concern, whether we could link the higher level of triglycerides with high level of anti-TPO antibodies only. In this analysis the level of TSH in the group with positive TPOAbs should be included as a second factor in the study (TSH-TPOAb correlations with triglycerides), as it is well known that in this population the prevalence of subclinical or overt hypothyroidism is higher therefore the tendency to high triglycerides level. I think it is worth to show these data because this correlation seems to be not so straightforward, although authors have mentioned about this in the Discussion.

Response

Thank you for your comment and we completely agree with it. According to your suggestion, we analyzed the association between TPOab levels with TSH levels and triglycerides levels. A positive association was identified between TPOab and triglycerides levels in patients with high
TPOab levels in the presence of high median TSH levels (β=32.181, p=0.0368). And I described this finding in discussion. I really appreciate your advice on improving the paper.