Author’s response to reviews

Title: Association of Retinol Binding Protein 4 and Transthyretin with Triglyceride Levels and Insulin Resistance in Rural Thais with High Type 2 Diabetes Risk

Authors:
Karunee Kwanbunjan (karunee.kwa@mahidol.ac.th;phosat_cr@hotmail.com)
Pornpimol Panprathip (loooook_kaew@hotmail.com)
Chanchira Phosat (chanchira.pho@mahidol.ac.th)
Noppanath Chumpathat (nophc@hotmail.com)
Naruemon Wechjakwen (Naruemon_w@hotmail.com)
Somchai Puduang (Somchai.pou@mahidol.ac.th)
Ratchada Auyyuenyong (ratchada_auy@hotmail.com)
Ina Henkel (ina.henkel@uni-potsdam.de)
Florian Schweigert (florian.schweigert@uni-potsdam.de)

Version: 1 Date: 26 Mar 2018

Author’s response to reviews:

26 March 2018

Dear Editor,

Thank you much for your consider our work and comments. We corrected and rewrited our manuscript according to your suggestion and described the correction as following:
Reviewer 1:

1. The introduction is vague and could be referenced better. The first paragraph could be removed completely. The authors need to focus more on the rationale for the study and why these molecules are potentially important markers of metabolic risk.

Authors: 1. Background; The first paragraph has been removed completely and rewrited, page 3, line 47-70 and page 4, line 71-74.

2. The text with highlight is the rewrited text.

2. In the methods it is not clear who the population are. Were they attending a clinic? Why? The results are clearly described. The discussion is fine.

Authors: The description of population is insert after 1st paragraph of part “Methods; Subjects” page 4, line 80-84.

Reviewer 2:

1. It is not really clear why the authors have decided to carry out a case control study for triglycerides levels. This point need clarification.

Authors: clarification of triglycerides levels study is located on rewrited paragraph page 3, line 60-68.

2. No data regarding gender are reported in the manuscript, however analyses are adjusted for age and gender. Please report these data.
Authors: Gender compare between Normal and High TG group report was added into Table 1 as highlight, Non statistical difference was found. Table 1 description was added as highlight. File Revised Table, page 1.

3. The authors are talking about metabolic syndrome. What is the correlation between RBP4 and TTR with all the metabolic syndrome parameters? And with blood glucose and HOMAIR? And with a metabolic syndrome score?

Authors: The correlation between RBP4 and TTR with all the metabolic syndrome parameters, blood glucose and HOMAIR was added into part of results, page 8, line 176-187. And added in part of discussion page 9, line 201-202 and 218-219. And Abstract was corrected, page 2, line 39-40.

No relationship between RBP4 and TTR with metabolic syndrome score was found. Metabolic syndrome score calculated by IDF criteria and A Risk Score for Predicting Incident Diabetes in the Thai Population (Aekplakorn et al. 2006)


4. In Table 3, according to the title, it is reported the association between RBP4, TTR and HbA1c, but there are no data regarding HbA1c.

Authors: It was typing error at the title of Table 3. The title was corrected, change from HbA1c to HOMA-IR, File Revised Table, page 2.
My major concern is about analyses reported in Table 3. In fact the risk of having high triglycerides levels according to RBP4 and TTR quartile distribution is obtained in very small subgroups of subjects, so I suggest to use great caution in describing this result and consider this as a pilot study that need replication in a much larger population.

Authors: Due to no exactly cutoff point of RBP4, TTR and HOMA-IR. We calculated OR by the logistic regression model, divided the parameters into both quartile and tertile. The statistical significant association was found. We reported by quartile, because it clearly seen increase risk respectively in subgroup. We have just notice that “n” in subgroup is relative small, we agree with Reviewer 2. Therefore we rewrited the Table 3, divided the parameters into tertile.

Correction at Table 3 File Revised Table, page 2, abstract page 2 line 35-39 and result part, page 7 line 157-163.

Others revisions:

1. Abstract,Background; Added Triglyceride (TG), page 2, line 25

2. Method; measurement of laboratory parameters

Add the full word of FBG, page 5 line 98

3. Results; change RBP4, TTR and HOMA-IR to “study parameters” page 7, line 167.

4. References; Due to revised in Introduction and discussion, the references were changed as highlight shown in the text. All references sequence also changed and shifted.

Before revision, the manuscript was English edited once by Edanze. This revised manuscript was done according to reviewers suggestion. After complete revision we will send for English edited again. Thank you again for your valuable suggestion.
Best Regards

Karunee Kwanbunjjan