Author’s response to reviews

Title: Association of rs662799 in APOA5 with CAD in Chinese Han population

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Version: 1 Date: 05 Jun 2017

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Reviewer reports:

Christoph Sinning, MD (Reviewer 1): Editor

Please quote on potential impact of CV risk factors on kind of plaque (quote on PMID: 26508517)

The performed study by Chen et al. highlights the importance of certain genetic traits in the development and progression of atherosclerosis. An important issue in the conducted study is that the described SNPs is quite common in Asian populations, hinting at the importance of individual medical treatment to properly manage CAD in the shown sample of the population. Therefore the results are relevant.

Thanks for your comments on our paper. We have revised our paper according to your comments:

The paper---‘Prevalence and predictors of culprit plaque rupture at OCT in patients with coronary artery disease: a meta-analysis’ has been quoted on P6 the Discussion section.
Alexandre Stewart (Reviewer 2): The manuscript by Chen et al. titled: "Association of rs662799 in APOA5 with CAD in Chinese Han population" examined the association of 7 SNPs with CAD in a cohort of 435 CAD patients and 196 non-CAD controls. This sample size is underpowered for genetic associations. A nominal association was found between rs662799 in APOA5 and CAD, as well as with rs5882. This observation is not new for Han Chinese, it has been reported by a number of investigators, including the study by Ye et al. (2015) Positive Association between APOA5 rs662799 Polymorphism and Coronary Heart Disease: A Case-Control Study and Meta-Analysis. PLoS ONE 10(8): e0135683. This study was not cited and should be cited.

The nominal associations were apparently not adjusted for multiple testing. Given that 7 SNPs were tested, the threshold for significant association, assuming each variant is independent, after Bonferroni correction is $p<0.05/7$ or $p<0.007$. Thus, unfortunately, none of the observed associations are significant. The authors should consider obtaining larger sample sizes, or to combine their results with other studies.

Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction. Revised portion are marked in yellow in the paper. The main corrections in the paper and the responds to the reviewer’s comments are as flowing:

1. The paper----‘Positive Association between APOA5 rs662799 Polymorphism and Coronary Heart Disease: A Case-Control Study and Meta-Analysis’ has been quoted on P6.

2. The sample size was quite not enough. We were prepared to collaborate with other hospitals in search of a larger sample size. But it was not able to find the right partner. Therefore, we have more clinical characteristics in our study and genotyping step was carried out by next generation sequencing. Our study was performed to investigate if the polymorphisms in lipid metabolism genes were associated with CAD occurrences.