Author’s response to reviews

Title: Reproductive factors and its association with intima media thickness and carotid plaques in a cross sectional study of postmenopausal women enrolled in the population-based KORA F4 study

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Author’s response to reviews: see over
Answers to Reviewer 3:

Reviewer: Samar El Khoudary, Date: 1 December 2013

Reviewer’s report:

Thank you for the authors for being responsive to the reviewer’s comments. The manuscript has considerably improved. Few comments and questions still need more clarification:

Thank you for your positive opinion about our manuscript and thank you for the work you did put in the revisions. We responded point by point to the comments and questions and hopefully we can clarify now everything. The changes in the manuscript are in red color.

Minor Essential Revisions

1. Methods, Subjects: Should the total number for those who were eligible for F4 be 3866 instead of 3867? Subtracting all exclusions did not result in 3080.

The number 3867 is correct. We calculated: 4261-176-206-12=3867. And if we subtract the other participants: 3867-174-218-395, the result is 3080.

2. Table 1: Please be consistent in what was presented for categorical variables. Both n and % were provided for the “total” column. Only % was provided for the other two columns (presence or absence of plaque).

Thank you for this useful hint. This can lead to a misunderstanding of table 1. Therefore we omitted the “n” for the “total” column and provide for all three columns the % only. We hope it is clearly arranged now.

3. Did the authors tested for interaction between current use of HT and time since menopause? Although each of these two variables were not significantly related to the outcome, this did not imply that the interaction is also not significant.

We did a formal test for interaction between current use of hormone replacement therapy and time since menopause in years. There was no significant interaction (p-value = 0.7005). We added a sentence in the results section about this fact (page10).

4. Please justify why total cholesterol and TG, which would be expected to be highly correlated, were included simultaneously? What about LDL-C and HDL-C? Also please provide methods for each of these measures.

The atherosclerotic effect of total cholesterol is well known. Therefore we decided to include it as confounder. Since we examined an intermediate phenotype of atherosclerosis in this analysis (carotid plaques and intima media thickness) we included triglycerides since it is known that it increases the risk for atherosclerosis as well. It is correct that they are highly correlated. If you wish we could rerun the analysis and exchange triglycerides with LDL. But the results are nearly the same (most changes are only in the third place after the decimal point), therefore we didn’t perform the changes, we didn’t think it is necessary, but we leave it to your decision and of the editor.

We added the information about how the new variables were measured in the method section (page 7).
5. In statistical section, please provide details about including the new measures in multivariable analysis.

*We added this information in the statistical part of the methods section (page 9).*

Level of interest:

An article whose findings are important to those with closely related research interests