Author's response to reviews

Title: Treatment with betablockers is associated with higher grey-scale median in carotid plaques.

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Author's response to reviews: see over
Dear Editors,

We would like to thank the editor and the reviewers for the valuable comments and suggestions on our article. We have improved the manuscript in accordance with the suggestions. Please find enclosed the answers to the comments and the revised manuscript.

We hope that the revised version is acceptable for publication in your prestigious journal.

Sincerely

The authors

Malmö, 2014-08-15
1. Can you additionally analyze the association between beta blocker use and GSM separately by lipophilic/non-lipophilic beta blockers? If you can’t because of the sample size issue, please add some comments in limitation section.

As you anticipated, an analysis of a possible association between betablockers and GSM separately by their pharmacologic characteristics is not meaningful because of the small sample size of the present cohort. Furthermore, the different therapeutic regimes in terms of betablocker type, absolute dose and duration are bringing heterogeneity to the study population. This aspect is clearly a limitation of this study and was mentioned at lines 266-269.

2. Based on this kind of research (retrospective study with cross-sectional analyze), you can NOT completely infer cause-effect association. The use of beta blockers by physicians would be likely influenced by patient characteristics and comorbidity. For example, a proportion of hypertension in patients with beta blockers use is higher than those without beta blockers use, so I guess those with beta blockers use are likely described with many kinds of antihypertensive medication, which might lead to better BP control in those with beta blockers use than those without beta blockers use. The authors did not provide data of BP, BS, HbA1c, LDL, etc? this point should be major limitation. Please avoid the term, such as ?beta-blocker may be protective?..beneficial?..stabilize plaque?..?. These words are over expression. Instead, you should CLEARLY mention the limitation of this study design, as I told you above.

We agree with your comment on the possible better BP control in patients on betablockers in our cohort. Unfortunately, data on BP, BS and HbA1c are incomplete and therefore not given in the manuscript. We mentioned this aspect as a limitation at lines 270-275. An analysis of the serum levels of TG, LDL, HDL was conducted. Please see lines 188-190. The manuscript
wording was revised in accordance with the comment regarding the effects of the betablockers.