Author's response to reviews

Title: Predictive Value of Coronary Calcifications for Future Cardiac Events in Asymptomatic Patients with Diabetes mellitus: A prospective Study in 716 Patients over 8 Years

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Resubmitting Original Article to BMC Cardiovascular Disorders.

Title: Predictive Value of Coronary Calcifications for Future Cardiac Events in Asymptomatic Patients with Diabetes mellitus: A prospective Study in 716 Patients of 8 Years


Dear Editor,

thank You for the review of the above-cited manuscript. We appreciate the comments that helped us to improve our manuscript. Below You will find the changes of manuscript according to the reviewer’s suggestions. Particularly the manuscript was corrected by a translator and several sentences were rephrased. We would now like to resubmit the above-cited manuscript for publication in BMC Cardiovascular Disorders.

Reviewer 1:
1: Our study showed similar results compared to the studies by Achenbach et al., so the findings comply with studies by Achenbache et al.

2: Resp. was used as an abbreviation for respectively, in most cases respectively was replaced by different phrases.

3: Also at the beginning of sentences was deleted.

4: As mentioned by reviewer 1 an increase in prevalence does not lead to an increase in individual risk. It was intended to state, that patients with diabetes are patients with an increased risk for cardiovascular events and that that number of patients with diabetes mellitus will be increasing. So it is thereby not therefore.

5: Fastening was replaced by fasting.

6: PROCAM score was deleted from the methods section. We only calculated Framingham score and UKPDS score and discussed the results of these two scores. The references are given in the methods section

7: To achieve an adequate level of significance and avoid the error of multiple testing the usually used p-value of 0.05 has to be divided by the number of tests. Therefore 0.05 had to be divided by 4 and 2.
8: The observation time was 8.1 years. This was corrected in the results section.

9: The sentences mentioned by reviewer 1 were rephrased.

Reviewer 2:

Major revisions:
1 and 2: All diabetic patients were asymptomatic on study entry and without suspected CAD. The patients were sent to our clinic for a preventive medical check up. Still ECG, stress ECG, and echocardiography were performed in order to achieve a homogenous study population and to exclude patients with CAD on study entry. This is now given in the methods section. Of course the study population can not be considered an unselected population and an elevated risk of cardiovascular events has to be expected. This is mentioned in the discussion section.


4: We performed an interims analysis after 4 years to evaluate if study endpoints were already reached. This is now given in the methods section.

5. “Agatston score and risk of MI correlated” was deleted in the abstract and replaced by “We found a continuously increasing risk of cardiovascular events with increasing calcium scores, the relative risk increased from 3.1 (2.8 women) for patients with scores from 0 - 10 to 32.8 (50.0 women) for patients with scores above 400.”

6. As mentioned an area under the curve does not necessarily indicate a good clinical test, the clinical impact of the test depends on sensitivity, positive, and negative predictive value. “Areas under the curve above 0.7 indicate a reasonably good clinical test” was changed to “Areas under the curve above 0.7 might indicate a reasonably good clinical test in combination with a sufficient diagnostic accuracy (sensitivity, specificity, negative and positive predictive value)”

Minor revisions:
1: “clinical value” was added.

2. 96 % was a typographical error and changed to 95 %.

3. The number of risk factors per patient is now given in table 2, there was no significant difference between the patients with and without cardiac event. We could not calculate a significant difference in age between these groups, the false markers of significance in table 2 were corrected.

4: resp. was replaced by respectively.

5: In every patient arterial blood pressure (three times after 10 minutes rest), LDL cholesterol level, HDL cholesterol level, and triglyceride level were determined in the fasting state in our hospital. Arterial hypertension was defined as systolic blood pressure above 140 mmHg or diastolic blood pressure above 90 mmHg. Family history was measured by personal interview
and defined as CHD in male first degree relative <55 years; CHD in female first degree relative <65 years. This is now given in the methods section.

6: Median and interquartile range are now given.

Reviewer 3:

1: Only type 2 diabetics were included in the study. This is now given in the methods section.

2: Reference 15 was deleted.

3: In table 1 the percentages of different subgroups are now provided. The description of the last hypertensive subgroup was corrected.

4: 87 patients underwent revascularization, 64 patients PCI, 23 patients CABG. This has been corrected.

5: We examined the discriminatory power of Agatston score, UKPDS score, and Framingham score. This has been corrected.

6: The event rates and relative risk of different score scores are given in table 4.

7: s. reviewer 2, minor revision 2. The false markers of significance in table 2 were corrected. The event rates in patients with score > 400 were marked as significantly higher.

8: We added markers of significance to table 3.

We hope the changes meet the reviewers’ requirements and would like to resubmit the above-cited manuscript for consideration for publication in BMC Cardiovascular Disorders.

All coauthors have seen and agreed to the content of the revised manuscript. No author has a financial interest in the subject matter or materials mentioned in the paper. A. Becker and A. Knez are responsible for clinical trial data.

Yours sincerely,

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