Author’s response to reviews

Title: Retinal capillary rarefaction in patients with untreated mild-moderate hypertension

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Responses to the comments of Reviewer 1

We thank the reviewer for the helpful comments.

1. In the revision, there are extensive changes to the results (e.g. p-values, coefficients), which were not explained

Answer:

We apologize for not sufficiently explaining the changes made to the results in the revision of our paper:

a) One major change to the results was made regarding SBP distribution the healthy control group. BP values have been checked with the primary data and the copy errors have been corrected in the revised manuscript.

b) As suggested by the other reviewer, BMI values in Table 1 have been checked again for distribution and found not to be normally distributed. Therefore, in the revised manuscript median and interquartile range of BMI values have been provided and
comparison has been made using Mann-Whitney-U-Test which lead to a change in p-value.

c) It has been criticized by the other reviewer that the adjustment of p-values of retinal capillary density and flow measurements was based on four complex model options, which might be difficult to read. We therefore have rewritten and simplified the models for adjustment (as described in the result section “Retinal capillary density and retinal capillary flow” in the revised manuscript). This led to changes of the adjusted p-values, which are shown in table 2 of the revised manuscript. The primary data including retinal parameters and unadjusted p-values has not been changed (please see Table 1 of revised manuscript).

As suggested by the other reviewer all correlations have also been adjusted. The r and p-values for partial correlations are shown in table 3 of the revised manuscript. No changes were made to the unadjusted correlations (data given in result section “Retinal capillary density and wall-to-lumen ratio” and “Capillary density and lipid metabolism”).

The other reviewer suggested that it might be informative to provide characteristics of patients from the study population and from the whole four clinical trials in order to avoid selection bias. Therefore a new supplemental table has been created comparing characteristics of the clinical trial hypertensive population with our hypertensive group. This table provides additional information not changing the actual results of our study and was included to show that selection bias has been minimized in our analysis.

2. The authors make exaggerated claims of novelty in the discussion

Answer:

We thank the reviewer for this helpful comment. The claims of novelty in the discussion have now been substantially reduced.