Reviewer’s report

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

Version: 0 Date: 18 Nov 2016

Reviewer: Iddo Ben-Dov

Reviewer's report:

Jumar and coworkers report increased retinal capillary rarefaction in patients with untreated mild-moderate hypertension. The study is well described and well reported. I nonetheless have several reservations and suggestions:

1. In the Introduction, it is not clear whether the authors believe rarefaction is a cause or result of hypertension.

2. The relevance of the Introduction sentence "Hypertension-associated over activity of the rennin angiotensin system is known to alter the cerebral blood supply and contribute to increased susceptibility to stroke and dementia" is not clear.

3. Please define "stage 1 or 2 hypertension" in terms of BP cutoffs. Also, please explain the term "trough mean" (trough mean sitting systolic BP…).

4. Results of 24 h ABPM are described but the methodology is not mentioned at all.

5. Results, 1st paragraph, OD is mentioned twice with opposing statements.

6. In multiple regression models, serum creatinine values should be probably log transformed if distribution is skewed. Also check cholesterol distribution.

7. Discussion: "endo-organ" should be "end-organ".

8. Please discuss the applicability of the method in routine clinical practice - are the needed devices routinely available?
9. Table 1 - healthy control group SBP distribution 127 ± 18 mmHg suggest that some are hypertensive - please verify and exclude hypertensive subjects (same for 24 h DBP).

10. The fit lines in Figures 4A and 4B appear incorrect - please verify and provide the raw data as supplement.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal