Reviewer’s report

Title: Homeostasis model assessment of insulin resistance and outcome of ischemic stroke in non-diabetic patients - a prospective observational study

Version: 0  Date: 26 Nov 2018

Reviewer: Aristeidis Katsanos

Reviewer’s report:

In the present case-control study authors aimed to determine whether non-diabetic insulin resistance is associated with stroke severity and long-term outcomes after ischemic stroke by including 441 non-diabetic ischemic stroke patients and 560 controls. Although the study is of interest, I have significant concerns as outlined below:

1. The introduction is lengthy, and should be limited to no more than 2 paragraphs.

2. Cryptogenic stroke according to TOAST criteria is also defined as stroke without comprehensive diagnostic work-up and also stroke with two or more possible causes.

3. Please report stroke severity in the NIHSS.

4. Page 6, paragraph 1: please provide corresponding references for the provided diabetes and hypertension definitions.

5. Please provide the results of statistical testing on normality assumption prior and after log transformation for HOMA-IR.

6. Were the covariates included in models A and B predefined?

7. There are significant information on vascular risk factors missing in Table 1 (e.g. history of atrial fibrillation, history of coronary artery disease, smoking status etc.)

8. Please report exact p-values and not only p<0.1 or p<0.05.

9. Authors present in Tables continuous variables as number +/- number. Please explain.

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

No

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

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

No

**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

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