Reviewer’s report

Title: Dynamic Cerebral Autoregulation Is an Independent Outcome Predictor of Acute Ischemic Stroke after Endovascular Therapy

Version: 0 Date: 06 Mar 2020

Reviewer: Leonard Yeo

Reviewer's report:

Bilateral dCA abnormality has been shown in lacunar stroke but less reported in large vessel stroke. There is some novelty in this report.

However The treatment and control arms are not well matched especially the BP is different in a study looking at dCA. There are also large proportions of smokers and hypertension in the treatment patients.

Why was heparin given for a stroke thrombectomy? Please cite any references to show that it is beneficial.

Cerebral autoregulation has been reported to recover after 3-5 days post infarct, however the study seems to show there is persistent disability. The contralateral dCA is also persistently different.

Looking at favourable outcomes, it appears that even the contralateral dCA shows a difference bordering on significance. The lack of significance is likely due to the small sample size, I am not sure if we can accept the conclusions of the author based on this analysis.

What is the AUC of the ROC curve?

The thrombectomy images are not useful in this study and can be removed.

I don't understand table 5- I assume it's the multivariate analysis for favourable outcomes? If so the title is wrong.

I think a more interesting table would be what factors are associated with abnormal dCA in the patient cohort?
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.

No

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

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 organisation 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 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