Author's response to reviews

Title: Microvessel Changes after Post-ischemic Benign and Malignant Hyperemia: Experimental Study in Rats

Authors:

Haitao Lu (haitaolu1975@gmail.com)
Jungong Zhao (lhtliminghua@gmail.com)
Minghua Li (liminghuapro@gmail.com)
Yingsheng Cheng (chengyingsheng@yahoo.cn)
Yongdong Li (yongdongli@yahoo.cn)
Xiaofang You (youxiaofang@yahoo.cn)
Yuwu Zhao (doctorneurol@yahoo.cn)

Version: 2 Date: 11 December 2009

Author's response to reviews: see over
Dear editor:

Ms: 1572415702259995

Title: Microvessel Changes after Post-ischemic Benign and Malignant Hyperemia: Experimental Study in Rats

Thank you very much for considering the revision of our manuscript. We have changed the format of manuscript according to your advice and made a point-by-point response to the reviewer’s comments below.

We appreciate your hard work and hope that our paper has a chance to be published in BMC NEUROLOGY. If you confront any further confusion about the manuscript, please contact me by e-mail: haitaolu1975@gmail.com

Sincerely

Jungong Zhao MD. and Yuwu Zhao MD.

The Sixth Affiliated People’s Hospital; Medical school of Shanghai Jiao Tong University

E-Mail: haitaolu1975@gmail.com or doctorneurol@yahoo.cn

Tel.: +86-21-64844183

Fax: +86-21-64844183
Referee 1:
Reviewer's report

Major)
1) In the introduction, a classification of hyperemia due to a PET-study published as supplement to JCBF is given. Due to the limited access this is inconvenient. The following section describes a somehow inconsistent hypothesis (while type 2 and 3 seem to have small infarcts, the authors describe type 2 and 3 as ?malignant?). Probably the authors refer to their own classification given in the methods section, but this should be clarified. Types of hyperemia should probably given as a additional table.

Response: We are very sorry about our mistake, type 1 were malignat hyperemia, and type 2 and 3 were benign hyperemia. This classification was described by Graf R, et al, and we have given a table.

2) On page 10 results of different types of hyperemia are described. However the signs are identical for these groups (??). This is probably due to a conversion-problem, please clarify.

Response: Yes, this phenomenon maybe a conversion-problem, and this shoud be futher study. We only described this signs in truth as we measured.
4) The authors postulate, that longer times of ischemia as well as thrombolysis are associated with malignant hyperemia. However longer times of ischemia are not associated with hyperemia, as group 4 did not demonstrate this. Please clarify.

Response: We think that longer times of ischemia is not more than 3 hours. Our study is that we monitored the CBV of rats after reperfusion only at two time points. This maybe a limitation of the study. Serial imaging studies performed at more time points will be required to further characterize the time course.

Minor)

3) In Table 1 exactly the same numbers are given for group 2 and 3 concerning the rCBV and rMSI. This should be clarified.

Response: We are very sorry about our mistake in Table 1. The group 2 and 3 were identical time point of 3h., we divide into two groups because of the different therapy,. The measured numbers of the rCBV and rMSI was based on the sum of rats of group 2 and 3 before therapy, so the numbers of rats was 14. We have made a rectification.

5) Although all in all a sufficient number of animals has been investigated, the results for LSCM and TEM are based on only 2 animals of each group. Therefore several explanations in the discussion section are very speculative. This should be mentioned as limitation of the study.
Response: We have mentioned as limitation at the last paragraph of discussion part according to your requirement.

Level of interest An article of importance in its field

Quality of written English Acceptable

Statistical review Yes, and I have assessed the statistics in my report.