Changes to be made by the Author(s):

1. Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammar issues. The JoVE editor will not copy-edit your manuscript and any errors in the submitted revision may be present in the published version.

Reply: Thank you for your advice, we have had our manuscript improved by native English speakers.

1. Please print and sign the attached Author License Agreement (ALA). Please then scan and upload the signed ALA with the manuscript files to your Editorial Manager account.

Reply: We have printed and signed ALA, and uploaded it. Thank you very much.

1. Where are the figure legends? Please include a title and a description of each figure and/or table. All figures and/or tables showing data must include measurement definitions, scale bars, and error bars (if applicable). Please include all the Figure Legends together at the end of the Representative Results in the manuscript text.

Reply: We have uploaded figure legends, please find them in Representative Results section in new-versioned manuscript.

1. Figure 1: Please label the panels. What do the red arrows signify? Having a border between the panels would greatly improve the Figure.

Thank you, we have labeled the panel and added a border between the upper and lower panel. The red arrows signify CHMs, which have been explained in legends in new-versioned manuscript.

1. Figure 2: Please use a different color for the panel labels.

Thank you for the suggestion, we chose black color.

1. Figure 4: Please label the panels.

Reply: Thank you for your advice, we have labeled the panel.

1. Additional details are needed in the manuscript. Please see the comments in the attached manuscript.

Reply: Thank you for your suggestions, we have improved our manuscript according to the comments one by one.

1. Please provide an institutional email address for each author. Please avoid the use of 126.com accounts.

Reply: Thank you, we have provided the email address of other authors.

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Reply: Yes, we have obtained the permission from the “Journal of Stroke and Cerebrovascular Diseases”, and uploaded it. Each figure legend has the citation.

1. Please do not abbreviate journal titles.

Reply: Yes, we can confirm this. Thank you.

1. Please highlight 2.75 pages of protocol text for inclusion in the protocol section of the video.

Reply: Thank you very much, we have highlighted it in yellow background, please find them in new-versioned manuscript.