Reviewer’s report

Title: An Open Source Software for Analysis of Dynamic Contrast Enhanced Magnetic Resonance Images: UMMPerfusion revisited

Version: 0 Date: 01 Sep 2015

Reviewer: Hairong Chen

Reviewer's report:

Dear Authors, in general this is a good opportunity to learning from your study, I have several comments on this manuscript.

1) On line 29/page 4, regarding the mentioned "on a single research tool...", there is another similar DCE plugin for Osirix at the Body Magnetic Resonance Group in Stanford University if it is not my confusion.

2) On line 45/page 5, with respect to "the single models is detailed", it might be helpful to put a brief introduction of these models and a little bit of their preference during analysis here, for the convenience of catching up the following tables and figures.

3) On line 21/page 6, in regard to the "maintained globally", there a question from my curiosity that will these global variable change according to different situations, such as organs, image acquisition, etc.?

4) On line 59/page 9, according to "a time series", my curiosity is whether the temporal resolution have impact on the perfusion parameters? If yes, is one series of dataset sufficiently enough for validation?

5) On line 3/page 10, regarding "PMI", unfortunately, I didn't find the reference. So is it possible to show some numerical outcome supporting your conclusion that no difference was obtained?

6) On line 44/page 10, the "look like" might be a typo for "look alike".

7) On line 41/page 11, regarding the conclusion, here comes my naïve consideration: a) It's already a good evidence for the solidarity of this software by undergoing certification process. Regarding clinical application, are the plans all setup for the validation of these models with respect to different image acquisition setup, and images achieved from
different vendors? b) Regarding your expectation to improve the speed for mapping, is there a possibility to incorporate 3D rendering?

8) On page 20-21, as attempting to zoom in, the figures become blurry and hard to figure out the text.

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.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:
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