Reviewer’s report

Title: Breast masses diagnosis from dynamic contrast-enhanced and diffusion-weighted MR: assessment of accuracy across two patients groups under different imaging protocol

Version: 2  Date: 1 December 2013

Reviewer: Guandong Xu

Reviewer’s report:

- Major Compulsory Revisions

Paper is mainly an application study of the existing algorithms, and lacks the sufficient comparison with other the previous work.

- Minor Essential Revisions

1. In the third paragraph of “Materials and Methods”, the word “exclusion” is used twice in the statement of “Patients were excluded from the trial for any of the following exclusion criteria.” It is advised to remove the word “exclusion” or replace it with its synonym.

2. In the Figure1. Overview of System, the layout of charts is not very beautiful. A type of Tree layout from top to down may be better, which is more visual, clear and easy to read.

1. The term of ADC is referred in the first paragraph of Abstract, which isn’t given a full explanation until Introduction. It may cause an understanding obstacle for a person who is unfamiliar with this field. It is advised to add its full name at the beginning.

2. The training group and testing group are based on different Tesla. Can you give a specific explanation of its reasons and significance for why we need to do experiments on different Tesla? What's more, Is there a possibility collecting data (B) with training group 3.0 Tesla and testing group 1.5 Tesla? When (A) the training group is based on 1.5 Tesla and the testing group is based on 3.0 Tesla. If it is possible, are the results of (B) similar to (A)' results?

3. The meaning of Scenario 2 is that ADC is highly diagnostic and it can improve the performance of classification. Does it need to consider other feathers' influence? If every feather’s combination with feather i has a good or bad effect on the classification, it can be calculated by a contribution function designed by ourselves. We then can get every feather i’s function value and a sorting table. The paper will be more enriched with the analysis of the items in the sorting table.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests' below.

- 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 paper, either now or in the future?

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- Do you hold or are you currently applying for any patents relating to the content of the manuscript? Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

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