Reviewer's report

Title: A pilot evaluation of magnetic resonance imaging characteristics seen with solid papillary carcinomas of the breast in 4 patients

Version: 1  Date: 31 May 2016

Reviewer: Karen Shin

Reviewer's report:

1. Descriptions on how the patients were diagnosed and included in the study as well as why was breast MRI performed for these patients would give a better understanding for the patient selection. Also, what were the findings in other imaging modalities (mammography and sonography)?

2. Some background information regarding MR spectroscopy would be beneficial for reader's understanding of the significance in application of MRS as it is not routine protocol in breast MRI in the U.S.

3. The authors briefly mentions lymph node status. Since there are only four patients, it could be helpful to include staging of the patients and discuss surgical management (i.e. lumpectomy versus mastectomy, surgical margins, axillary lymph node dissection versus sentinel lymph node dissection, etc.). Also how were these patients followed post treatment when the authors commented that there was no metastasis or recurrence at the one year follow up. Were they only followed up to a year or was that at the time of the termination of the study?

4. Some of the MRI BI-RADS descriptors need to be corrected.

5. If the authors are speculating why the ADC value is relatively higher in SPC, then it needs to be supported with why they think so, perhaps with an illustration. Also, in literature, the normal breast parenchyma and benign lesions are shown to have higher ADC values.
6. Ranges of radiologists experience may be appropriate. Also are they dedicated breast radiologists?

7. Figures would benefit from having arrows pointing towards the findings. Also there is a typo (figure 2A). Also, for figure 2, the mass may be seen as irregular mass than oval. If this is due to imaging slice selection, a better image selection would be helpful.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

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

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 organization 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 declare that 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