Reviewer's report

Title: How texture analysis of MRI is predictive of non-response to NAC in patients with breast cancer? A pilot study

Version: 7 Date: 21 August 2014

Reviewer: Jeon-Hor Chen

Reviewer's report:

This study used texture analysis of pre-treatment MRI to predict non-response in patients with breast cancer who received NAC. In the past, predicting NAC response was mainly focused on post-treatment MRI. Only few reports showed the results from pre-treatment MRI. The manuscript is well-written and clearly presented.

TITLE: Please modify the title to match the methods and results

ABSTRACT: Change “Pathological response was defined as …..” to “Pathological complete response was defined as …..”

INTRODUCTION: 1. The authors should more clearly state why there was a need for this study. 2. What is the biological basis of textural analysis on NAC prediction?

MATERIALS AND METHODS: 1. How the tumor size in pathology was measured should be detailed, for example, in case of scattered tumor foci or diffuse lesions. 2. How was tumor cells density measured? 3. Please confirm if breast MRI was performed with breast coil or body coil. 4. Image analysis: please use the correct lexicon for the description of “Lesions were categorized into mass pattern and non-mass pattern”. 5. In Table 1, how the tumors were graded?

RESULTS: 1. Please add subtitles to the results to make them clearer. 2. Many numbers in Table 1 and Table 2 did not match. For example, PR-positive was 42 in Table 1 but was 41 in Table 2. 3. The percentages shown in Table 2 were very confusing. 4. In Table 3, please add an illustration for kinetic definition. 5. In Table 3, references should be provided for the definition of textures. 6. In Table 4, so many numbers were presented for the textural parameters. What did these numbers mean? Unless the readers can understand, it made no sense to presented in this way. 7. What were the technical and biological factors affection the measured numbers in the textural analysis? 8. Similarly, Table 5 was with too many numbers. Please consider how to convert the table message into text. 9. More detailed caption is needed for Figure 4.

DISCUSSION: O.K.

*****Overall, Major Compulsory Revisions are needed for this manuscript.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests