Author’s response to reviews

Title: Circulating tumor cells with karyotyping as a novel biomarker for diagnosis and treatment of nasopharyngeal carcinoma

Authors:

Jing Zhang (zhangjinghgy@163.com)
Huashan Shi (shijin825@163.com)
Tingting Jiang (jtt889@sina.cn)
Ze Liu (lizhej@163.com)
Peter Lin (plin@cytelligen.com)
Nianyong Chen (nchenyy@yahoo.com)

Version: 1 Date: 22 Jul 2018

Author’s response to reviews:

Dear Editor and Reviewers:

Thank you for reviewing the manuscript and your critical comments. According to your suggestions, we have revised the manuscript (with the red marks) and make this response to the editor or reviewers point by point. Allow me re-submit the revised manuscript (BCAN-D-18-00637R1) “Circulating tumor cells with karyotyping as a novel biomarker for diagnosis and treatment of nasopharyngeal carcinoma” to you.

I hope that the revised manuscript will be accepted for publication.

Reviewer #1:

1. CTCs could be a good biomarker for detecting metastasis or relapse, however, can CTCs be screening or diagnosing tool for NPC? Do you have data of healthy individuals?

Response: Yes, we agreed with the reviewer’s comments. The CTCs could be a good biomarker for detecting metastasis or relapse. However, in the present data it has not showed that the CTC
could be used as a screening or diagnosing tool for NPC. Up to now, we don’t have data to compare with that in healthy individuals. In the future study, we will recruit the healthy subjects to compare that with NPC or other patients.

In addition, we applied integrated subtraction enrichment and immunostaining-fluorescence in situ hybridization (SE-iFISH) system to characterize CTCs in all cancer patients; this is not specific for NPC. We believe that if the specific marker is available, CTCs could be screening or diagnosing tool for NPC.

2. Why was T-classification or N-classification not obviously related to CTCs number? But the results showed that CTCs number could indicate the severity degree of disease and tumor burden in NPC?

Response: Thank you for the comments. The reason for T-classification or N-classification not obviously related to CTCs number might be the imbalance in the number of patients between each group, but CTCs number was related to clinical stage of NPC patients. Because of CTCs number revealed the overall results of various factors (T-classification and N-classification) of TNM classification.

3. Among 50 patients, does any patient have other cancer history? The inclusion criteria and exclusion criteria should be mentioned.

Response: We have corrected the data in page 7 line 1: Patients with a history of other tumors were excluded.

4. I believed the liquid biopsy can do the early diagnosis. But in this study, no T1 case was enrolled. Large number cases could be better.

Response: Yes, thank you for the suggestions. This study is ongoing and the large number cases will be collected in the coming study. In the present study, no T1 patient was enrolled, because all the patients were treated with advanced stage in our hospital. In the coming up, we will update our data with T1 cases in the near future.

5. The correlation of karyotyping and NPC staging was still not clear. Can the authors provide more statistic evidence for your conclusion?
Response: Thank you for the critical comments. In present data it has not showed the significant correlation of karyotyping and NPC staging; there was no significant difference between CTCs number with different karyotypes and TNM stage in NPC. However, interestingly, we found that CTCs karyotyping was corrected with the efficacy to chemotherapy in NPC patients in this study; we corrected the conclusion in the text.

Reviewer #2: this is a well-written manuscript, congratulate your outstanding research in this field. I believe your studies in the significance of CTCs in patient with NPC will have important impact on the management of patient with NPC in the future.

Response: Thank you for your recognizing and really positive comments, we will continue to delve into these studies.

Sincerely yours,

Nianyong Chen, MD, PhD
Director and Professor
Department of Head & Neck Oncology
Cancer Center
Sichuan University West China Hoapital
Chengdu
China