Author’s response to reviews

Title: Genomic profiles and transcriptomic microenviroments in 2 patients with synchronous lung adenocarcinoma and lung squamous cell carcinoma: a case report

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Author’s response to reviews:

Dear Editor,

We have studied the valuable comments from you. The point to point responds to the reviewer’s comments are listed as following:

Jing Tang (Reviewer 1): This study performed by Wu et al. showed genomic and transcriptomic profiles of all lung tumors from 2 multifocal lung cancers (MLCs) patients. With the same genetic background, the 2 tumors in one patient exhibited different tumor microenvironment. These results shed on new lights in genomic and transcriptomic features of synchronous lung adenocarcinoma and lung squamous cell carcinoma. Overall, the manuscript is well organized and its presentation is good. However, there are some minor issues need to be amended.

1. Since all 4 samples exhibited high fraction of mutated genes in RTK-RAS pathway, activation of this pathway should also be detected in the level of proteins by IHC or other method in situ in samples.
Response: Thank you for your valuable advice. Previous studies have shown high frequency of mutations in RTK-RAS pathway in both lung adenocarcinoma and lung squamous cell carcinoma, and the outcomes of mutations in RTK-RAS pathways have also been well characterized(1-7). Considering the limit of tumor tissues, we decided not to perform the experiment, and we have added the references (discussion and conclusions section, line 158).
Besides, we are collecting MLCs patients to expand the study.
2. To better understand the TME in MLCs, the in situ tumor-infiltrating immune cell (such as CD4+, CD8+ T cells, etc.) should be explored.
Response: Thank you for your valuable advice. We have added the results of CD4 and CD8 of P1 (results section, line 135-136, and Fig. S2).

3. The sample name in Fig.4A and 4D should be P1S rather than P2S according to the figure legend.
Response: According to the comment, we have modified the Fig 4 and corrected the sample names.

4. English proofreading is recommended. There are some grammatical mistakes and typing errors.
Response: Thank you for your valuable advice. We have had the manuscript polished with a professional assistance in writing.

Lin Hou (Reviewer 2): I have no questions with the scientific content of the manuscript, as the methods were clearly described, appropriately applied, and the conclusions are sound. However, language editing is needed before publication. There are grammar mistakes, for example:

Page 4, line 59-61, In this study, we analyzed 4 tumors from 2 patients with synchronous lung adenocarcinoma and lung squamous cell carcinoma for evaluate genetic profiles and transcriptomic microenvironments of synchronous MLCs.
Response: According to the comment, we have corrected the sentence to “In this study, we analyzed 4 tumors from 2 patients with synchronous lung adenocarcinoma and lung squamous cell carcinoma to evaluate genetic profiles and transcriptomic microenvironments of synchronous MLCs.”

Page 5, line 86, A total of 96 mutated genes (range from 16 to 37 per sample) of these pathways.
Response: According to the comment, we have corrected the sentence to “A total of 96 mutated genes (range from 16 to 37 per sample) of these pathways were detected”. Furthermore, we have had the manuscript polished with a professional assistance in writing.

Sincerely,
Qunyou Tan

References:


