

Dear reviewer:

Thank you for taking time out of your busy schedule to review our manuscript!

Here are my reply and amendment to your advice

1. Abstract_methods: “analysis to establish the optimal skeletal muscle index cut-off value”. This sentence is incomplete. Please add the corresponding endpoint.

Response: Thank you for the advice, and I’ve already made amendment to existing errors.

2. This study applied Cox proportional hazard model to compare survival curves (as stated in the Abstract). This is not the standard application of this statistical test. The Cox proportional hazards model is commonly used in survival analysis to evaluate the relationship between the time until an event occurs and one or more predictor variables. This model is often applied in medical research, epidemiology, and other fields where the timing of an event is important, such as in studies on disease progression, patient survival, or time to failure of a particular treatment or intervention. It's a valuable tool for understanding the impact of various factors on the timing of events of interest. According to the main text, it seems this is a typographical error. It is suggested to correct the Abstract.

Response: Thank you for the advice, and I’ve already made amendment to existing errors.

3. Discussion section is an opportunity for discussing about the study findings and the relevant underlying reasons. It is expected the authors explain more about the correlation between sarcopenia/myosteatosis and response to ICIs. One explanation might be related to the association between immune cells’ mitochondrial function and response to ICIs. Emerging evidence has put forward the crucial role of mitochondrial metabolism in response to ICIs (<https://pubmed.ncbi.nlm.nih.gov/37627086/>). Recently, it has been demonstrated that immune cells’ mitochondrial dysfunction can result in reduced clinical response to anti-PD1 agents

(<https://pubmed.ncbi.nlm.nih.gov/36469835/>). In addition, It has been demonstrated that sarcopenia and myosteatosis can represent the reduced mitochondrial function of muscular cells' as a representative of other human normal cells, including immune cells (<https://translational-medicine.biomedcentral.com/articles/10.1186/s12967-023-04369-z>). It's suggested the authors mention this information (and the noted references) to improve the Discussion section and bibliography.

Response: Thank you for the advice, I've added to the discussion section based on the suggestions you provided.

4. In addition, there are similar studies in the literature which are expected to be discussed in this manuscript; for example, the following by Lilong et al: -
[https://www.clinicalnutritionjournal.com/article/S0261-5614\(23\)00366-7/fulltext](https://www.clinicalnutritionjournal.com/article/S0261-5614(23)00366-7/fulltext)

Response: Thank you for the advice. I have read the article, and for the Myosteatosis section, that author used both liver cancer databases, and for that reason I think my article differs from it. And my article can be a good addition to the research in this field.

5. Keywords seem incomplete. It's suggested to add "Gastric cancer", "overall survival", and "Progression-free survival". "PD-1" and "PD-L1" can be replaced by "Immune checkpoint inhibitors", and "prognosis" can be replaced by "prognostic factors" to follow the study theme.

Response: Thank you for the advice, and I've added to the keywords.

6. It's recommended the authors not put any given information free of references. The following relevant reference is suggested for this sentence in the Introduction section "Therapeutic options for gastric cancer are expanding, with the integration of ICIs alongside conventional

chemotherapy and targeted agents.” - <https://pubmed.ncbi.nlm.nih.gov/38010493/>

Response: Thank you for the advice, and I've added references.

7. In this study, progression-free survival was defined as the duration between the initiation of immunotherapy and disease progression. It is recommended the authors update the results per the standard definition of PFS, as defined by NIH: - <https://pubmed.ncbi.nlm.nih.gov/23678517/>

Response : Thank you for the advice, and I reworked the results of my article based on your suggestions (7) and (10)

8.Please define the acronyms in the parenthesis at their initial appearance in the text (do this for Abstract and main text, separately)

Response: Thank you for the advice, and I’ve already made amendment to existing errors.

9.Statistical methods: “Log-rank test was utilized to assess potential prognostic factors in univariate analyses” Log-rank test is typically applied to illustrate the statistically significant difference between two or more survival curves. It is not an appropriate choice for univariate analysis. According to the “results” section, it seems that univariate analysis has been done using cox model, and this error is a typographical error. It is recommended the authors correct it.

Response: Thank you for the advice, and I’ve already made amendment to existing errors.

10. It is stated that 9 patients had early-stage disease. According to the standard practice, anti-PD(L)1 agents are not typically administered in these sort of patients. It is recommended to omit these patients from the final analysis.

Response: Thank you for the advice, and I reworked the results of my article.