PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 91014

Title: Effects of sarcopenia and myosteatosis on the clinical outcomes of patients with gastric cancer undergoing therapy with an immune checkpoint inhibitor

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05626712

Position: Peer Reviewer

Academic degree: MD

Professional title: Academic Editor, Academic Research, Assistant Professor, Attending Doctor, Research Scientist

Reviewer's Country/Territory: Iran

Author's Country/Territory: China

Manuscript submission date: 2023-12-20

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-12-27 02:53

Reviewer performed review: 2024-01-04 20:44

Review time: 8 Days and 17 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[Y] Grade A: Excellent [ ] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No novelty

Creativity or innovation of this manuscript	[Y] Grade A: Excellent [ ] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No creativity or innovation
Scientific significance of the conclusion in this manuscript	[Y] Grade A: Excellent [ ] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No scientific significance
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Summary: a retrospective study to explore the prognostic value of sarcopenia and myosteatosis in patients with gastric cancer receiving immune checkpoint inhibitors. Comments: 1. Abstract_methods: "analysis to establish the optimal skeletal muscle index cut-off value". This sentence is incomplete. Please add the corresponding endpoint. 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. 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. 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 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. 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/ 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/ 8. 8. Please define the acronyms in the parenthesis at their initial appearance in the text (do this for Abstract and main text, separately). 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. 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.

Scientific quality	[Y] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[Y] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection

Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The authors accomplished to address the comments. I have no more comments.