# World Journal of Virology

Utility of cardiac bioenzymes in predicting cardiovascular outcomes in SARS-CoV-2

### Dear Editor,

Thank you for giving us the opportunity to submit a revised draft of the manuscript. We appreciate the time and effort that you and the reviewers dedicated to providing feedback on our manuscript and are grateful for the insightful comments on and valuable improvements to our paper. We have incorporated most of the suggestions made by the reviewers. Please see below for a point-by-point response to the reviewers' comments and concerns.

# Reviewer #1:

Scientific Quality: Grade B (Very good) Language Quality: Grade A (Priority publishing) Conclusion: Accept (General priority)

Specific Comments to Authors: Title of the Letter is precise and reflect the core subject matter of the manuscript. The abstract is precise and summarizes the manuscript. However, one addition of one line regarding "importance of cardiac imaging along with biomarkers rather biomarkers alone" would have added focus of the manuscript. The manuscript adequately mentions the introduction and significance of COVID-19 associated cardiac disease, cardiac biomarkers and cardiac imaging for diagnosis, prognosis as well as clinical outcome. The authors have mentioned few cardiac biomarkers like Troponin, BNP and described them in brief regarding their physiological and pathological mechanism. The relations of COVID-19 and changes in these biomarkers in the body have been mentioned with brief explanations. Also, authors have described the mechanism of effect of COVID-19 upon myocardium which is very clear and relevant. The authors have mentioned advantages of few new cardiac bio enzyme and cardiac for the effective diagnosis and prognosis. The conclusion of the authors in this manuscript is that cardiac biomarker alone could not be used as confirmatory diagnosis and determining prognosis for the COVID-19 associated myocardial disease though supported by ECG which is an appropriate and relevant discussion here. Also, author focus on further use and further study of new cardiac bio enzyme and cardiac imaging for the effective diagnosis for which further study should be required which is an appropriate discussion. The manuscript cite appropriately the latest, important and authoritative references in the manuscript.

**Response:** 'Although biomarkers are important, we also mentioned them in our evaluation since it is important to evaluate them with imaging methods. We think that when we combine cardiac biomarkers and imaging methods, a very important point will be reached in the diagnosis.' has been added to the end of the first paragraph upon your request to add one line about "the importance of cardiac imaging with biomarkers rather than biomarkers alone".

#### Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

### **Conclusion:** Minor revision

**Specific Comments to Authors:** It is an interesting letter to the editor with high scientific value. However, I would suggest some changes in order to improve the manuscript: In the first sentence I would suggest to give the readers what this review the authors are mentioning is about. " The effects of the coronavirus disease 2019 (COVID-19) pandemic are still being felt. In this process, the relationship between COVID 19 and cardiovascular diseases has been an important issue. Therefore, cardiac biomarkers and cardiac imaging have an important place in the diagnosis phase." - These sentences are very general and I would suggest the authors to be more specific or to delete this fragment. " cardiac disease. In this review," -> cardiac disease. In this review, (a space is missing) At the end of the manuscript I would suggest to add some summary/conclusions of the editorial.

**Response:** Upon your recommendation, "The effects of the coronavirus disease 2019 (COVID-19) pandemic are still being felt. In this process, the relationship between COVID 19 and cardiovascular diseases has been an important issue. Therefore, cardiac biomarkers and cardiac imaging have an important place in the diagnosis phase." sentences were removed and "One of the main effects of the coronavirus disease 2019 (COVID-19) pandemic is on the cardiovascular system. Therefore, it is important to know and use cardiac biomarkers well, and to come to an advanced point in the diagnosis stage by combining them with cardiac imaging methods." sentences giving more specific information about our article were added. "Natriuretic peptides, especially natriuretic peptides, tend to be elevated and associated with poor prognosis in patients with heart disease, which is independently thought to be associated with COVID-19 even though the patients have no history of cardiac disease. In this review, the authors aimed to summarize the role of cardiac markers in determining and diagnosing the extent of involvement of heart damage, as well as their role in morbidity and mortality in patients with COVID-19." A space has been left between the two sentences.

A section "In summary, we have seen that there is a significant relationship between COVID-19 and cardiovascular system findings. After understanding this relationship, we learned that we should make the best use of the data we have at the point of diagnosis. Here, we know that we need to proceed to diagnosis by combining many cardiac biomarkers such as laboratory values such as BNP and pro-BNP with imaging methods such as ECG, CT, DECT and TRO CTA. In conclusion, we should make the best use of all available methods for diagnosis and treatment in order to reduce cardiovascular-related mortality and morbidity rates and improve prognosis in these patients." containing some summaries/results of the editorial has been added at the end of the draft.

### 1) Science editor:

The manuscript has been peer-reviewed, and it's ready for the first decision.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade B (Very good)

**Response:** Thank you for taking the time to evaluate our work and for your valuable comments.

# (2) Company editor-in-chief:

I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Virology, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the RCA. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: https://www.referencecitationanalysis.com/.

comments. Our references have been rearranged according to the formatting reference guidelines.