## **Comments by reviewers:**

Reviewer #1: The Authors wrote a systematic review on HF and COVID-19, including both patients with preexisting HF infected by SARS-CoV2 and patients with de novo HF due to SARS-CoV2 infection. The topic is interesting, even though the analysis and presentation should be significantly improved. When the Authors divide the 26 studies into 4 categories, it is not completely clear the difference between the first ("studies highlighting care needs that require ICU level of care and outcomes in hospitalized COVID-19 patients") and the second category ("studies reporting outcomes in COVID-19 patients admitted to ICU"). Moreover, ref no.6 was present in both. Does the first category refer to hospitalized patients in general, while the second to ICU patients? Please better specify the distinction between the two. The paragraph on "Increased Risk of de novo Heart Failure in COVID-19 Patients" seems to refer to hospitalized patients because of COVID-19 in general, including patients with pre-existing HF and not only with de novo HF, so that the title should be changed. In the paragraph on "Increased Risk of de novo Heart Failure in COVID-19 Patients" the sentence "The proportion of patients with heart failure varied from 4% to 21%" is not clear and should be rephrased (if I understand correctly) as "The proportion of patients with PRE-EXISTING heart failure varied from 1% to 21%" (please note also that the lowest percentage reported in Table 1 was 1%, not 4%). The discussion is quite long compared to the previous paragraphs; in particular, the discussion about POCUS and echocardiography should be shortened. The Authors did not discuss the role of natriuretic peptide for diagnosis and risk stratification in HF/COVID-19 patients, giving also little space to troponin assessment. These highly reproducible, robust biomarkers should not be neglected in this patient population.

Response: Thank you for your comments. With regards to the division of studies into categories, the first category does indeed refer to hospitalized patients in general, while the second to ICU patients. The description of the first category has been changed to "Studies highlighting prevalence of heart failure, requirement of ICU level of care and outcomes in hospitalized COVID-19 patients" to add clarity to this distinction. Reference number 6(number 5 in this revision) reports outcomes in all hospitalized patients as well as a subset of patients who were admitted to the ICU, which is why it is present in both categories.

The reviewers comment on the heading of the first paragraph under results has been accepted. The heading has been changed to "Increased Risk of Heart Failure in COVID-19 Patients". The sentence "The proportion of patients with heart failure varied from 4% to 21%" was changed to "The proportion of patients with pre-existing heart failure varied from 1% to 21%", as per the reviewers suggestion. The errata in percentages has been noted and changed.

The section on cardiac POCUS and echocardiography has been shortened. The role of natriuretic peptide for diagnosis and risk stratification in HF/COVID-19 patients and well as the role of troponin assessment has been added to the section titled "Screening for heart failure in the ICU".

Reviewer #2: The systematic review article is consistent within itself. The methods are valid and the criteria are fullfiled. The references are relevant and recent. The cited sources are referenced correctly. Appropriate and key studies are included. The paper is comprehensive, the flow is logical and the data is presented critically. However, there are some specific comments on weaknesses of the article and what could be improved: Major points - none Minor points 1. Why the discussion is divided further?

<u>Response:</u> Thank you for the comments. There are many aspects to the management of COVID-19 and heart failure and we felt that it would be easier for the reader to navigate the review if the information under discussion was divided into subheadings. This was our reason for doing so.

Reviewer #3: The findings in the article are original and are based on the literature review. The quality of the study is very good and methodology is used as per standards. It is evident that authors understand their limitations which has been mentioned clearly.

Response: Thank you for the comments.

## **EDITORIAL OFFICE'S COMMENTS**

- (1) Science editor:
- 1 Scientific quality: The manuscript describes an opinion review of the heart failure in COVID-19 patients. The topic is within the scope of the WJV.
- (1) Classification: Grade B, Grade A, and Grade D;
- (2) Summary of the Peer-Review Report: The quality of the study is very good and methodology is used as per standards. The topic is interesting. However, the analysis and presentation should be significantly improved

<u>Response</u>: The analysis and presentation has been modified in accordance with the reviewers' comments. As a part of the narrative review we have only summarized the existing literature without any additional analysis

- (3) Format: There are 4 tables and 2 figures.
- (4) References: A total of 84 references are cited, including 73 references published in the last 3 years;
- (5) Self-cited references: There are 7 self-cited references. The self-referencing rates should be less than 10%. Please keep the reasonable self-citations that are closely

related to the topic of the manuscript, and remove other improper self-citations. If the authors fail to address the critical issue of self-citation, the editing process of this manuscript will be terminated

<u>Response</u>: The references have been updated in accordance with the guidelines laid out by the editor. There are 5 self-cited references in the latest revision.

- (6) References recommend: The authors have the right to refuse to cite improper references recommended by peer reviewer(s), especially the references published by the peer reviewer(s) themselves. If the authors found the peer reviewer(s) request the authors to cite improper references published by themselves, please send the peer reviewer's ID number to the editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately.
- 2 Language evaluation: Classification: Grade A, Grade A and Grade B.
- 3 Academic norms and rules: No academic misconduct was found in the Bing search.
- 4 Supplementary comments: This is an invited manuscript. No financial support was obtained for the study. The topic has not previously been published in the WJV.
- 5 Issues raised:
- (1) The "Author Contributions" section is missing. Please provide the author contributions;

Response: An author contributions section has been added.

(2) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; and

Response: Original pictures in power point format have been included.

(3) Please obtain permission for the use of picture(s). If an author of a submission is re-using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the figure to be re-published; and correctly indicating the reference source and copyrights. For example, "Figure 1 Histopathological examination by hematoxylin-eosin staining (200 ×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. World J Gastroenterol 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]". And please cite the reference source in the references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s)

as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable. 6 Recommendation: Conditional acceptance.

Response: All the images are original and have no copyright infringement.