

## Reviewer 1 (Reviewer's code: 06198240)

**Scientific Quality:** Grade D (Fair)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Major revision

**Specific Comments to Authors:** The manuscript by Liptak et al provides an in depth analysis to the impact of the SARS-CoV-2 virus on liver pathologies, most notably ACLF. While comprehensive and well in-depth in explaining the links between ACLF and COVID, the manuscript would benefit from a more focused approach to the issue at hand which was not clear in the lengthy introduction. This paper could potentially be beneficial to the journal if the following links could be made:

**1. Most of the introduction could be better placed in the discussion segments (including the comparisons to other viruses). The thesis of the paper was not fully clear until the tail end of the long paragraph.**

Thank you for the comment. We have edited the manuscript, so the segments are more readable with more clear informative value.

**2. The link between understanding the pathophysiological mechanisms of COVID virus leading to better management was stated but not substantiated clinically. This paper could potentially benefit from the elaboration on the possible avenues to explore whereby the pathophysiology of COVID (versus other viruses) could help to improve outcomes for ACLF.**

Thank you for the suggestion. We have added these information in various sections of the paper.

**3. An excellent pictorial representation of the viral impact on the liver was presented.**

Thank you, we appreciate the comment.

**4. The table describing the definitions of ACLF seem rather incompatible with the focus of the paper and should be revised to correlate with how this might impact the management of COVID-induced ACLF. Else, a different table highlighting the impact of the 4 mentioned pathophysiological thesis could be considered.**

Thank you for the suggestion. We have added specific table with the aim of possible clinical implications of various pathophysiological mechanisms. Although the table considering definitions of ACLF is not precisely in the aim of the manuscript, we still believe that this could have an informative value for the reader so we would like to keep this table in the manuscript if the reviewer or editor agrees.

**5. Finally, the structure of the paper does not seem to be in line with the current recommended formatting of the World J.**

Thank you for the observation. We have edited the muscript to be in line with the current formatting of World Journal of Hepatology.

## Reviewer 2 (Reviewer's code: 05257465)

Thank you, dear reviewer, for the comments.

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

**Conclusion:** Accept (High priority)

**Specific Comments to Authors:**

1 Title. Does the title reflect the main subject/hypothesis of the manuscript? Good

2 Abstract. Does the abstract summarize and reflect the work described in the manuscript? N/A

3 Key words. Do the key words reflect the focus of the manuscript? N/A

4 Background. Does the manuscript adequately describe the background, present status and significance of the study? Yes

5 Methods. Does the manuscript describe methods (e.g., experiments, data analysis, surveys, and clinical trials, etc.) in adequate detail? N/A

6 Results. Are the research objectives achieved by the experiments used in this study? What are the contributions that the study has made for research progress in this field? Good, the authors gave a detailed summary from many aspects including pathophysiology, the mechanisms of virus on the liver cells, and so on. A summary of these results is helpful in understanding the virus-induced liver disease.

7 Discussion. Does the manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically? Are the findings and their applicability/relevance to the literature stated in a clear and definite manner? Is the discussion accurate and does it discuss the paper's scientific significance and/or relevance to clinical practice sufficiently? Good.

8 Illustrations and tables. Are the figures, diagrams and tables sufficient, good quality and appropriately illustrative of the paper contents? Do figures require labeling with arrows, asterisks etc., better legends? Good.

9 Biostatistics. Does the manuscript meet the requirements of biostatistics? N/A

10 Units. Does the manuscript meet the requirements of use of SI units? Yes.

11 References. Does the manuscript cite appropriately the latest, important and authoritative references in the introduction and discussion sections? Does the author self-cite, omit, incorrectly cite and/or over-cite references? Yes

12 Quality of manuscript organization and presentation. Is the manuscript well, concisely and coherently organized and presented? Is the style, language and grammar accurate and appropriate? Yes.

13 Research methods and reporting. Authors should have prepared their manuscripts according to manuscript type and the appropriate categories, as follows: (1) CARE Checklist (2013) - Case report; (2) CONSORT 2010 Statement - Clinical Trials study, Prospective study, Randomized Controlled trial, Randomized Clinical trial; (3) PRISMA 2009 Checklist - Evidence-Based Medicine, Systematic review, Meta-Analysis; (4) STROBE Statement - Case Control study, Observational study, Retrospective Cohort study; and (5) The ARRIVE Guidelines - Basic study. Did the author prepare the manuscript according to the appropriate research methods and reporting? Yes.

14 Ethics statements. For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. Did the manuscript meet the requirements of ethics? N/A

### **Reviewer 3 (Reviewer's code: 06198240)**

**Thank you for reviewing the comments sent. The paper now presents much more clinical impact and should be considered for publication.**

Thank you for your comment and suggestion.