

Dear Editor,

Thank you for giving us a chance to revise our manuscript (Manuscript Number: 62734) entitled " COVID-19 infection and liver injury: clinical features, biomarkers, potential mechanisms, treatment, and management challenges". We revised and answered all useful comments forwarded by your respected reviewers for re-consideration and possible publication in your journal. I hope my revision has improved the paper to a level of their satisfaction. On the basis of the respected reviewers and editorial suggestions, in this revision we respond to each of the criticisms, point by point and indicate all the changes we have made to support our idea. All changes made in the manuscript are highlighted and reviewer comments together with the corresponding responses are presented below.

Editor and reviewer comments

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We appreciate the editor's comment, we designed the figures without plagiarism issue, we certify that no portion of this manuscript (text, figures) has been previously published

Reviewer #1: The figures 1-3 made as per the suggestion was not presented for review. Hence I recommend the authors submit them for review and after consideration of which the decision on the article can be made.

We truly appreciate the reviewer's comments. Based on reviewer comments we designed new figures to address the pathways of liver injury due to COVID.

Reviewer #2: This is a very well done review on a relevant issue in this era. It is interesting the focus on both disease-related and drug-related hepatic involvement in COVID-19 patients. I have noticed only few and minor mistakes: - Line 97-98: "The prevalence of hypoalbuminemia..... was 6% (range 29-24%)". It is surely a typing error, but it must be corrected; - Line 149: "Researchers suggest that COVID-19 causes direct hepatocyte, acidophilic bodies.....". In this sentence you refer

to the virus, so it is more correct "SARS-CoV-2" than "COVID-19"; - Line 424, Line 453, Line 509: the word "doctors" should be modified in "physicians"; These are only stylistic corrections; the general quality of the manuscript is very good and worthy of publication.

Thank you very much for your recognition of the main findings of our study. We have carefully checked and corrected the mistakes throughout the manuscript with all changes underlined. We have performed English editing and corrected the grammatical errors throughout the paper (with all changes highlighted).

Reviewer #3: I commend the work of the authors to compile the evidence on hepatic dysfunction associated with the SARS-CoV-2 infection and its implications and management options available. The script is not comprehensive enough to include various aspects of liver injury and the associated mechanisms involved in their pathogenesis. The following are the shortcomings I find in this review which when addressed could further enhance the quality of the manuscript presented:

1. the title needs change as nothing about the follow-up is given in the script. It would be better if mentioned as management challenges instead of management and follow-up
2. the pathomechanisms of liver injury mentioned could be better highlighted with an illustrative image depicting the pathways of liver injury due to COVID
3. There are various other articles published in the last 6 months which increased the understanding of the disease on hepatobiliary dysfunction due to the disease and inclusion of them would further add to the value of the manuscript. I could not find any of the articles in the above mentioned period included in this review.

We appreciate the reviewer for the valuable comments. We have tried to address the issues to the best of our ability that mentioned by reviewer, based on the reviewer's suggestion, we have changed the manuscript title "COVID-19 infection and liver injury: clinical features, biomarkers, potential mechanisms, treatment, and management challenges" and designed figures to highlight the pathways of liver injury due to COVID. We updated the article by adding highlighted parts from articles that published in the last 6 months (2021).

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