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23 September 2020

The Editor
World Journal of Virology
http://www.wjgnet.com

Dear Editor,

Re: Chronic liver disease following hepatitis B virus infection and HIV co-infection in the context of underlying metabolic syndrome: Current state of the art

Enclosed, please find the revised manuscript (Manuscript ID: 57835) of an invited mini review to be considered for publication in the **World Journal of Virology**. We have carefully considered the comments from the Reviewer and Editors in revising the manuscript. A detailed response to all the comments raised by the Reviewer and the Editors during the peer-review process is appended below.

We trust that you will now find the revised manuscript suitable for publication in your Journal.

Sincerely,

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Response to Reviewer's Comments

Reviewer 1: The manuscript "Chronic liver disease following hepatitis B virus (HBV) infection and HIV co-infection in the context of underlying metabolic syndrome: Current state of the art" by Amponsah-Dacosta et al. focuses on the chronic liver disease associated with the hepatitis B virus and human immunodeficiency virus coinfection. This is a well-organized review article, and it reads smoothly. Multiple literatures were reviewed and cited. It is known that HBV and HIV independently may play a role in liver disease. However, their role in the setting of coinfection was not detailly analyzed. Thus, this paper could serve a great recourse for the understanding of HBV- and HIV-associated liver disease in the context of underlying metabolic syndrome. This is a well written manuscript; however, addition of the is following work may help to strengthen it: It has been shown that interaction of HIV proteins gp120 and tat with epithelial cells may induce epithelial-mesenchymal transition, which may lead to the development of fibrosis (Lien et al., PLoS One. 2019 Dec 23;14(12):e0226343. doi: 10.1371/journal.pone.0226343. eCollection 2019.) Thus, HIV interaction with liver cells may synergize the development of HBV-associated cirrhosis.

Authors' Response: We appreciate the Reviewer's critical review of the manuscript. As suggested, the findings of Lien et al., 2019 have been included in the review under the sub-section, "Limited evidence on plausible synergistic effect between MetS and HBV-HIV co-infection", on page 10. This new section now reads as follows (in red);

"It is well established that HBV-HIV co-infected individuals are at increased risk of chronic liver disease[86,87]. In addition to the widely recognized mechanisms underlying chronic liver disease in HBV-HIV co-infected individuals, it has now been shown that interactions between HIV gp120 and tat proteins with epithelial cells may induce epithelial-mesenchymal transition, leading to the development of fibrosis[88]. Thus, among those with HBV-HIV co-infection, HIV interactions with liver cells may synergize the development fibrosis and cirrhosis. In comparison, very little is known of the effect of underlying MetS on the progression of chronic liver disease among HBV-HIV co-infected individuals."

The relevant publication has been cited in the text and indicated the referenced list (reference number 88).

Response to Editorial Office's Comments

Science Editor: 1 Scientific quality: The manuscript describes minireviews of the Chronic liver disease following hepatitis B virus infection and HIV co-infection in the context of underlying metabolic syndrome. The topic is within the scope of the WJV. (1) Classification: Grade A; (2) Summary of the Peer-Review

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Report: This is a well-organized review article, and it reads smoothly. Multiple literatures were reviewed and cited. Reviewer suggest consider HIV interaction with liver cells may synergize the development of HBV-associated cirrhosis; and (3) Format: There are 2 tables. A total of 93 references are cited, including 20 references published in the last 3 years. There are no self-citations. 2 Language evaluation: Classification: Grade A. A language editing certificate issued by VACFA was provided. 3 Academic norms and rules: The authors provided the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement. No academic misconduct was found in the CrossCheck detection and Bing search. 4 Supplementary comments: This is an invited manuscript. The topic has not previously been published in the WJV. The corresponding author has not published articles in the BPG. Without financial support. 5 Issues raised: Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. 6 Re-Review: Required. 7 Recommendation: Conditionally accepted.

Authors' Response: The Science Editor's comments are well noted. With regards to the issues raised (#5), the submitted manuscript does not include figures and as such no further amendments have been implemented. The manuscript does include two tables which have now been organized into a Word file, and submitted as "57835-Tables.docx" on the system, as per the "Criteria for Manuscript Revision".

Company Editor-in-chief: I have reviewed the Peer-Review Report, the full text of the manuscript and the relevant ethics documents, all of which have met the basic publishing requirements, and the manuscript is conditionally accepted with major revisions. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report and the Criteria for Manuscript Revision by Authors. Before final acceptance, authors need to correct the issues raised by the editor to meet the publishing requirements.

Authors' Response: All issues raised by the Reviewer and the Editorial Office have been addressed in revising the manuscript for re-review.