

Dear Editors:

On behalf of my co-authors, we thank you very much for giving us an opportunity to revise our manuscript, we appreciate editor and reviewers very much for their positive and constructive comments and suggestions on our manuscript entitled "HBV-related liver cirrhosis complicated with dermatomyositis: a 6-year follow-up case report and literature review".(Manuscript ID: 45633). Those comments are all valuable and very helpful for revising and improving our paper.

We have studied reviewer's comments carefully and have made revision which marked in red in the paper. We have tried our best to revise our manuscript according to the comments. Attached please find the revised version, which we would like to submit for your kind consideration.

We would like to express our great appreciation to you and reviewers for comments on our paper. Looking forward to hearing from you.

Yours sincerely,

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Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "HBV-related liver cirrhosis complicated with dermatomyositis: a 6-year follow-up case report and literature review " (Manuscript ID: 45633). We have studied comments carefully and have made corrections which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and responds to the reviewer's comments are as following:

**Responds to two reviewers' comments:**

To 03479052

**Comment 1:** *"No need to add references in abstract section."*

**Response:** The references in the abstract section have been deleted in the revised manuscript. Related references were added into the introduction section, therefore we re-adjusted all reference sequences.

**Comment 2:** *"The authors did not mention that HBV DNA was measured in blood at admission although they stated in discussion that the viral load was undetected."*

**Response:** We are very sorry for the absence of HBV DNA in serum of the patient at admission. We added this datum in the laboratory examination section of the revised manuscript.

**Comment 3:** *"Despite Anti HCV ab testing was negative, why authors did not confirm HCV status by more specific tests? This is extremely important because of the stronger association of HCV with DM."*

**Response:** We are very sorry for the absence of HCV RNA in the manuscript. We actually detected the HCV RNA in the serum of the patient in first hospitalization. HCV RNA testing datum was added to laboratory examination section (5th line) of revised manuscript. We also added sentences "However, we can exclude the possibility of HCC-related DM in this patient based on the lack of anti-HCV and HVC RNA in his serum" in discussion section of revised manuscript.

**Comment 4:** *"Do authors exclude HCC or asked for laboratory testing For HCC markers?"*

**Response:** The patient's Alpha fetoprotein (AFP) were within normal range in first hospitalization. The magnetic resonance imaging (MRI) of the abdomen revealed hepatic cirrhosis and mild splenomegaly without mass lesions in the liver. Both data were shown in laboratory examination and imaging examination sections in the revised manuscript. The patient did not show the manifestations of HCC during 6-year follow-up based on APF testing and ultrasound imaging. Therefore, we excluded that the possibility of HCC-associated DM in this study. We added sentences

"upon initial admission, our patient presented AFP within normal range in serum and MRI without mass lesion in liver, we excluded the possibility of HCC-associated MD in this study" in discussion section.

To 03764321

**Comment 1:** *"The authors does not mention that there are or are not former studies on the relation between HBV and dermatomyositis and if it prove or deny this relation."*

**Response:** In 2005, Mason reported a case of HBV-related polymyositis in which HBV immune complex deposition and HBV DNA replication were detected in the interstitial vascular endothelium of diseased muscle tissues as shown in reference [8] in the discussion section of revised manuscript. We summarized ten cases about hepatitis virus infection and DM since 2000, and found that HBV production was absent in the skeletal muscle samples of these patients. Most of these patients were diagnosed with DM associated with HCC but without HBV and HCV as shown in table 1 and 2 as well as discussion section in the revised manuscript. Recently Han et al reported a case of DM associated with HCC in which steroid treatment had limited effect, but antiviral therapy improved muscle strength, thus Han hypothesized that DM developed as a consequence of HBV infection. So more research on muscle biopsy evidence remains to be obtained to confirm the association between HBV and DM. All of the above statements have been presented to discussion

section of revised manuscript.

**Comment 2:** *"The figures and diagrams are sufficient, good quality and appropriately illustrative of the paper contents but they require labeling with arrows."*

**Response:** Arrows were added into the figures of liver biopsy and muscle biopsy.

**Comment 3:** *"This is an interesting study which spot the light on an important issue, but it does not prove or deny the role of HBV infection and dermatomyositis or mention that there were or were not former studies on the relation between HBV and dermatomyositis and if the studies prove or deny this relation."*

**Response:** As response to comment 1, there are three kinds of viewpoints on the relationship between HBV and dermatomyositis. (1). HBV-associated polymyositis was shown in reference [8], in which HBV immune complex deposition and HBV DNA replication were detected in the interstitial vascular endothelium of diseased muscle tissues. (2). HBV possibly plays a role in the pathogenesis of polymyositis as shown in reference [9], in which steroid therapy against DM associated with HCC had limited effect, but an improved muscle strength achieved during anti-HBV therapy. (3). There is negatively relation between HBV

infection and DM as shown in reference [13,14,21] and our study, in which HBV markers were absent in muscle tissue and/or anti-HBV therapy is not useful for DM. Three viewpoints above have been clarified in the discussion section of the revised manuscript.

Once again, thank you very much for your comments and suggestions.

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