

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: **WJG 75314** revision.docx).

Title: Artificial intelligence in liver ultrasound

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Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 75314

We are very grateful about the reviewers' valuable comments. We believe that these comments have made our manuscript more comprehensible. We have made all the changes as required. We have made the required changes in the main text, tables, references, legends and figures. We tracked the changes in the text.

Reviewer 06247911:

The work is well presented and the methods adopted to acquire the inputs are explained with quantitative and qualitative analysis. The tabular column with briefing is well supporting the context. No concerns to address.

[Reply: Thank you very much.](#)

Reviewer 04281468:

In this manuscript, the authors present a review to introduce the current status and future perspectives of AI in liver ultrasound. This work is meaningful. I hope my comments can help to improve the quality of this manuscript.

[Reply: Thank you very much.](#)

- Chapter number of Qualitative evaluation and Quantitative study is the same.

[Reply: Thank you very much for calling attention to our error, we corrected this mistake in the main text as you suggested.](#)

- I suggest to given the whole structure of your review in the Section 1. It is better apply a figure or table to completely illustrate your structure.

[Reply: Thank you very much for your valuable suggestion, we included as you suggested, and it was showed in the Figure 1.](#)

- In addition, in this manuscript, we also suggest to present some pictures to visually illustrate the existing methods.

[Reply: Thank you very much for giving us valuable suggestions, which would make my manuscript better. We have added the picture to illustrate the existing methods which can be seen in the appropriate location of Figure 2.](#)

- To the best of my knowledge, there are several key disadvantages of AI. First, it is difficult to prepare the large-scale dataset with ground truth, especially for medical images. Second, the interpretability and generalization of deep learning is low. However,

in your manuscript, you do not refer to these disadvantages.

Reply: Thank you very much for giving us valuable suggestions, we added these disadvantages of AI as you suggested, and it was shown as follows: There are some limitations in the applications of AI in ultrasound. Firstly, it is difficult to prepare the large-scale dataset with ground truth, especially for medical images. Secondly, although deep learning is the widest used algorithm and has good performance in various studies, the interpretability and generalization of it is low.

- In this manuscript, as the readers, we also want to know how to do the next work in this field. Thus, I suggest to discuss the future works in detail.

Reply: Thank you very much for giving us valuable suggestions, we added discussion of future works as you suggested, and it was shown as follows: Therefore, researchers are required to conduct more multi-center studies and incorporate more samples as much as possible. At the same time, optimizing algorithms and creating standards for medical images are also necessary. In spite of medical images, researchers could also build the database containing important clinical factors to establish a more comprehensive AI model for future work.

We would like to thank the reviewer again for taking the time to review our manuscript. Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

A handwritten signature in black ink that reads "Xinwu Cui". The signature is written in a cursive style and is positioned above a thin horizontal line.

Prof. Dr. med. Xin-Wu Cui

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