

2019-Feb-29

***Application of artificial intelligence in gastroenterology***

Dear editor and reviewers

First of all, authors appreciate the editor's and reviewers' thoughtful and helpful comments. Also, we are pleased to have an opportunity to make this paper to be an even better one and to be accepted with revision, because the editor and reviewers provided additional important points that we haven't realized before.

Here, we are submitting the revised manuscript that addresses several concerns of the editor and reviewers. We have included the changes as recommended by the editor and reviewers in the revised manuscript (colored as red).

We hope that this paper will now be considered for publication.

We thank you for your time and look forward to your reply.

Yours Sincerely

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Point-to-point responses to comments by the Reviewer

**1. A table of AI terminology is required**

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The authors wish to thank the reviewer for offering thoughtful and helpful comment.

**R1:** We added TABLE 1 for AI terminology in the revised manuscript. Thanks again for offering helpful comment.

**2. Authors should summarize the provided evidence in tables for each chapter. Table will include -beyond the bibliographic information, the type of study, number of subjects, the type of AI used, briefly the results and the applicability in clinical practice. Then, authors can critically review the evidence listed in the table in the main text instead of repeating the same info in a narrative manner. Authors are encouraged to discuss one study against the other -if applicable- to highlight benefits and limitations. Finally, at the end of each chapter, authors should state their future perspective regarding the discussed technologies. Providing general comments about the future of AI at the end of the manuscript is not sufficient since the potential might be different within the domains discussed.**

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The authors wish to thank the reviewer for offering helpful comments.

**R2:** We strongly agree with the reviewer's point. We added TABLE 2 to TABLE 5 to summarize the clinical studies mentioned in the main text. These tables include information of study aim, design, number of subjects, type of AI used in each study, brief outcomes, in addition to bibliographic information. We also modified the contents to enhance the readability in the main text. However, it is difficult to predict the way of future AI in each discrete area. Instead, we realized that there is commonly found pitfalls in the publications of AI in gastroenterology field. That's why we summarized the current establishment in a narrative way and future AI paragraph separately at the end of this manuscript. Thanks again for offering important comments.

**3. The most appealing domain of gastroenterology for implementation of AI is endoscopy. Thus, I recommend focusing in depth in this section. Endoscopy of the small bowel should consist a different chapter. I would ask the authors to do their best in order to legitimately acquire endoscopy pictures from authors (and/or publishers) to enrich the paper. Sorry, endoscopy without picture/video is not endoscopy**

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The authors wish to thank the reviewer for offering thoughtful comment.

**R3:** We strongly agree with the reviewer's point. Paragraph about endoscopy of the small bowel was modified according to the reviewer's suggestion. Although it was impossible to acquire endoscopy pictures from authors mentioned in my manuscript within a week (revision time is only a week for me), I added endoscopic picture of another study of mine. Thanks again for offering an helpful comment.