PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63169

Title: Artificial intelligence in Small intestinal diseases: Application and prospects

Reviewer's code: 05545228

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: China

Manuscript submission date: 2021-01-25

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-03-02 02:42

Reviewer performed review: 2021-03-02 03:48

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The authors of this work conducted a systematic review on the role of AI in helping with small intestinal disease diagnosis. This paper is overall informative and there are some merits. The following issues should be fully addressed in a revision.   - What are the criteria of literature screening after machine searching? Please clarify. - Both the terminologies of "AI" and "SID" are big concepts. It is suggested to include an illustrative graph to show the sub-categories and the relationships. - While your work is overall informative, I am missing some take-home message. What new findings do you want to deliver to the readers? The discussions have been informative. However, I do not think the current conclusion does a good job.   - In the section of "Diagnosis of small intestinal mucosal lesions", all parts are not treated equally. More details and in-depth discussions are needed here. - The "challenges" proposed should be linked to what you have discussed above. Also, in the review-type article, some time slots for what have been achieved and what to achieve in the future are expected. - Further discussion about related techniques from other applications, such as Lightweight attention convolutional neural network for retinal vessel image segmentation. - Editorial: Why some words are capitalized in the paper title while the others are not?

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63169

Title: Artificial intelligence in Small intestinal diseases: Application and prospects

Reviewer's code: 05333402

Position: Editorial Board

Academic degree: MHSc, PhD

Professional title: Professor, Research Dean

Reviewer's Country/Territory: Turkey

Author's Country/Territory: China

Manuscript submission date: 2021-01-25

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-03-04 12:52

Reviewer performed review: 2021-03-06 07:23

Review time: 1 Day and 18 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This manuscript reported a study regarding a topic about the status of AI in SIDs was systematically introduced, and the challenges and prospects in this field are also analyzed which can be interesting to some readers of this journal. However, this reviewer has some concerns about the study. There some issues that should be clarified and discussed by the authors.   1.   Article Title   The title is appropriate.   2.   Abstract Abstract is appropriate. However, there can be several suggestions for the "Methods" section".   Please don not use abbreviations in the abstract section and follow the instructions for authors.   3.   Introduction: Review of the Literature   The review of the literature is adequate and updated. However, several studies are still missing, thus   should also be inserted, the authors may wish to add those in this section.   4.   Statement of Objectives   The objectives are clear.   5.   : Material and Methods   The methods are clear and detailed.   6.   Statistical Analysis   There is no statistical analysis needed.   7.   Results   The results are clear. The tables are also appropriate.   8.   Discussion   The inferred results are well described.   9.   Conclusions   This reviewer agrees with the conclusion drawn in the study.   10.   Figures   Appropriate.   11.   References   The references are generally good, there are some minor errors which can be corrected.   12.   Grammar and Style   Recommend the manuscript be reviewed for spelling, punctuation and grammar. There are few mistakes in the reference list which should be corrected. is in need of further refinement.   This manuscript reported a study regarding a topic about the status of AI in SIDs was systematically introduced, and the challenges and prospects in this field are also analyzed which can be interesting to some readers of this journal. However, this reviewer has some concerns about the study. There some issues that should be clarified and discussed by the authors.

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PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63169

Title: Artificial intelligence in Small intestinal diseases: Application and prospects

Reviewer's code: 02439987

Position: Peer Reviewer

Academic degree: PhD

Professional title: Chief Doctor

Reviewer's Country/Territory: Spain

Author's Country/Territory: China

Manuscript submission date: 2021-01-25

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-03-02 18:50

Reviewer performed review: 2021-03-09 14:43

Review time: 6 Days and 19 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The study shows a broad overview of existing progress in AI and other computational systems in the area of the small intestine. Not all the articles included in the analysis are based on the use of artificial intelligence. Some of them use computational analysis not considered artificial intelligence. Therefore, perhaps the title should be modified: Artificial intelligence and other computational analysis systems in Small intestinal diseases: Application and prospects. In the INTRODUCTION section, the authors mention double-balloon enteroscopy, perhaps it would be more appropriate to refer to balloon-assisted enteroscopy or deep enteroscopy. This would also consider spiral enteroscopy. "INTRODUCTION .... The traditional examination methods include X-ray barium enterography, CT, MRI, double-balloon enteroscopy, etc. In recent years, the emergence of capsule endoscopy (CE)......." In line 6 of this same section, when the capsule endoscopy technique is introduced (….In recent years, the emergence of capsule endoscopy….), this sentence should be modified because capsule endoscopy has been available for 20 years. It would be appropriate to include a METHODOLOGY section. This section should specify the criteria followed for the selection of the articles, their description: years covered, types of studies. It should also describe all the sources of information used and the languages selected. A flow figure could be included with the search information, screening process, number of rejected articles, number of selected articles (the area could even be specified: endoscopy, capsule, resonance, ...).

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63169

Title: Artificial intelligence in Small intestinal diseases: Application and prospects

Reviewer's code: 03258825

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2021-01-25

Reviewer chosen by: Man Liu

Reviewer accepted review: 2021-03-03 00:16

Reviewer performed review: 2021-03-14 20:00

Review time: 11 Days and 19 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This manuscript comprehensively review the current status of applying artificial intelligence (AI) in the diagnosis of small intestinal diseases, focusing on celiac disease, Crohn's disease, primary small bowel tumor, angiodysplasia and GI bleeding. This a timely review on an important topic. Comments: Some AI research were done in animals and not in human. For example, the study involving calculating small bowel length based on MRE images were done in mice (reference 14). It is important to point out when results were done in animals and not yet ready to be applied to patients. Please go over all of the studies in the manuscript and make a comment (in the text and in the tables) if the research is an animal study. The manuscript mentioned that AI can help in the assisted localization of radiotherapy. However, the manuscript did not mention any research on using AI to localize a small bowel lesion. Please elaborate on this topic. It would be nice to have a quick overview of AI in health care in the beginning of the manuscript. For example, imaging processing, pathology recognition, algorithm, or risk modeling.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63169

Title: Artificial intelligence in Small intestinal diseases: Application and prospects

Reviewer's code: 02439987

Position: Peer Reviewer

Academic degree: PhD

Professional title: Chief Doctor

Reviewer's Country/Territory: Spain

Author's Country/Territory: China

Manuscript submission date: 2021-01-25

Reviewer chosen by: Han Zhang (Part-Time Editor)

Reviewer accepted review: 2021-04-12 06:26

Reviewer performed review: 2021-04-12 06:59

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The changes made by the authors in response to my review are correct.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63169

Title: Artificial intelligence in Small intestinal diseases: Application and prospects

Reviewer's code: 03258825

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2021-01-25

Reviewer chosen by: Han Zhang (Part-Time Editor)

Reviewer accepted review: 2021-04-12 23:15

Reviewer performed review: 2021-04-14 14:42

Review time: 1 Day and 15 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The authors have satisfactorily address comments raised on the previous review.