

## PEER-REVIEW REPORT

**Name of journal:** Artificial Intelligence in Gastroenterology

**Manuscript NO:** 65327

**Title:** Artificial intelligence for cancer detection in upper gastrointestinal endoscopy, current status, and future aspirations.

**Reviewer's code:** 00048221

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Egypt

**Manuscript submission date:** 2021-06-06

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-06-09 04:27

**Reviewer performed review:** 2021-06-09 06:40

**Review time:** 2 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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#### **SPECIFIC COMMENTS TO AUTHORS**

this manuscript reviewed several hot topics in the field of GI endoscopy AI. The public data base and real time lesion detection are important problems which studies in future could focus on.

## PEER-REVIEW REPORT

**Name of journal:** Artificial Intelligence in Gastroenterology

**Manuscript NO:** 65327

**Title:** Artificial intelligence for cancer detection in upper gastrointestinal endoscopy, current status, and future aspirations.

**Reviewer's code:** 03585867

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Chairman, Chief Doctor, Chief Physician, Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Egypt

**Manuscript submission date:** 2021-06-06

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-06-07 08:50

**Reviewer performed review:** 2021-06-13 02:13

**Review time:** 5 Days and 17 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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## **SPECIFIC COMMENTS TO AUTHORS**

First, this is a mini-review of machine learning and artificial intelligence in upper upper gastrointestinal endoscopy for detection and characterization of neoplasms. The authors stated their opinions on four parts, A, B, C, and D. Second, this is a review on the latest progress of digestive endoscopy-artificial intelligence in the detection of gastrointestinal tumors. The authors described the necessity of AI application, the application of AI in upper gastrointestinal endoscopy, the current status of AI technology application, and the outlook for the future. They mainly put forward two points. First, the use of AI will help train novices; second, the establishment of public data sets will help the sharing of resources, so as to partially solve the problems of different disease spectrums. Third, this review has some limitations. First of all, part of this article is written in colloquial English, so it is suggested that the author invite native English speakers to help polish it. Second, the second part of this paper focuses on the principle of machine learning, which seems to be inconsistent with the topic discussed in this paper. This part should pay more attention to the research progress; Third, in the third part of this paper, namely "Types of Advanced Imaging Used", there are too many subsections, which makes it difficult to grasp the key points the author wants to discuss. Among them, the description of the computer hardware is relatively lengthy and disjointed with the medical review.

## PEER-REVIEW REPORT

**Name of journal:** Artificial Intelligence in Gastroenterology

**Manuscript NO:** 65327

**Title:** Artificial intelligence for cancer detection in upper gastrointestinal endoscopy, current status, and future aspirations.

**Reviewer's code:** 05186998

**Position:** Editorial Board

**Academic degree:** MD

**Professional title:** Assistant Professor

**Reviewer's Country/Territory:** Japan

**Author's Country/Territory:** Egypt

**Manuscript submission date:** 2021-06-06

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-06-08 15:50

**Reviewer performed review:** 2021-06-16 14:43

**Review time:** 7 Days and 22 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## **SPECIFIC COMMENTS TO AUTHORS**

The authors reported a mini-review of the role of artificial intelligence in upper gastrointestinal endoscopy detection of cancer. The manuscript is well-written and concise. However, there remain some concerns following the below comments.

Comments: Abstract 1. The authors describe "...discussing the benefits and pitfalls of machine learning and artificial intelligence in upper gastrointestinal endoscopy" However, they didn't discuss the benefits and pitfalls of machine learning in itself. A-Importance of using artificial intelligence in upper gastrointestinal endoscopy 2. "...on other non prevalent types" This phrase is obscure. Please clarify the intended meaning.

3. "Second reason ... GI colonoscopy" I'm not convinced that training is not adequate in postgraduate courses in general. Indeed, some Facilities have those problems, however, it is difficult to adapt around the world. Please discuss other reason for using AI in upper GI endoscopy. Types of advanced imaging used: 4. The lighting in LCI mode has the high ratio of short wavelength laser intensity, and emphasizes hemoglobin related information. Signal processing of LCI emphasizes the contrast of the reddish color. Please refer to the below article. Surg Endosc. 2021

Jun;35(6):2750-2758. doi: 10.1007/s00464-020-07706-1. Future aspirations: 5. Please discuss more about the problems with AI in upper GI at the moment. E.g. How to get through chronic inflammation of background mucosa. How do you think about the collaboration of AI and IEE.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** Artificial Intelligence in Gastroenterology

**Manuscript NO:** 65327

**Title:** Artificial intelligence for cancer detection in upper gastrointestinal endoscopy, current status, and future aspirations.

**Reviewer's code:** 03585867

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Chairman, Chief Doctor, Chief Physician, Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** Egypt

**Manuscript submission date:** 2021-06-06

**Reviewer chosen by:** Man Liu

**Reviewer accepted review:** 2021-07-02 01:15

**Reviewer performed review:** 2021-07-02 07:05

**Review time:** 5 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS



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This brief review illustrated the utilize of artificial intelligence in upper gastrointestinal endoscopy for detection and characterization of neoplasms. Except for some small points, the other parts are well written. In part A, it is clear that you are trying to illustrate the importance of AI assistance in upper GI tumors diagnoses than in colorectal polyp detection. The length of the comparison could be adjusted and more attention should be paid to the following part to report the latest development, such as AI endoscopy performance in real time diagnosis. There are already many researches in this field. Clinicians will be more interested in this aspect.