PEER-REVIEW REPORT

Name of journal: *Artificial Intelligence in Cancer*

Manuscript NO: 74661

Title: Usefulness of artificial intelligence in early gastric cancer

Provenance and peer review: Invited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05355947

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Italy

Manuscript submission date: 2021-12-31

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-08 02:33

Reviewer performed review: 2022-01-08 03:07

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Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer	Peer-Review: [Y] Anonymous [ ] Onymous

| statements | Conflicts-of-Interest: [   ] Yes   [Y] No |

SPECIFIC COMMENTS TO AUTHORS

In this manuscript, the author reviewed the published papers related CAD systems in the diagnosis of EGC and concluded that the AI recognizes those lesions even better than the most experienced endoscopists can detect. Generally, this is an interesting and well-written minireview with sufficient references, though similar topic has been published in other journals.

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Name of journal: *Artificial Intelligence in Cancer*

Manuscript NO: 74661

Title: Usefulness of artificial intelligence in early gastric cancer

Provenance and peer review: Invited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05391966

Position: Peer Reviewer

Academic degree: MSc, PhD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Italy

Manuscript submission date: 2021-12-31

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2022-02-09 05:55

Reviewer performed review: 2022-02-10 17:45

Review time: 1 Day and 11 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Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer	Peer-Review: [ ] Anonymous [Y] Onymous

statements	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This author reviewed the significance of AI in the early diagnosis of GC, I think it is a well-written manuscript, which could attract more interest from the clinical researcher. I recommend the acceptance of the submitted manuscript before minor revision. 1. The author should introduce the general operations about the diagnosis of GC, such as CT, MRI, US, and emphasize the advantage of endoscopic, and the disadvantage of endoscopic in the clinical practice. 2. AI technology is also used in some others, such as CT or MRI, I also suggest the author introduce some background in the introduction section.

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Manuscript NO: 74661

Title: Usefulness of artificial intelligence in early gastric cancer

Provenance and peer review: Invited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05194798

Position: Editorial Board

Academic degree: MD

Professional title: Director

Reviewer's Country/Territory: Japan

Author's Country/Territory: Italy

Manuscript submission date: 2021-12-31

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2022-02-09 09:35

Reviewer performed review: 2022-02-13 09:09

Review time: 3 Days and 23 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	Peer-Review: [Y] Anonymous [ ] Onymous

statements	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This article is a minireview which focused on the application of AI for early gastric cancer. The authors introduced the development of AI for diagnosing early gastric cancer, which is an interesting topic for endoscopists as early diagnosis and treatment can bring patients better prognosis. However, the following a minor issue require clarification: Minor 1. (Abstract) The sentence, "AI can represent a greater opportunity for the early detection of lesions because supporte the less experienced endoscopist, but also the one experienced, in defining the margins of the tumor and the depth of infiltration." seems include grammatical and spelling errors. Please confirm it. 2. (P3L26) Please give some examples of multiple factors. 3. (P4L12) Please enter a bar between 40% and 60%. 4. (P5L22,23) A unit of "lm" seems strange. I think "μm" is common. 5. (P6L20) Please add the numbers of related references on "Current studies". 6. I recommend that the authors add a table regarding the outcomes of the extracted studies. 7. This article mainly described the excellent outcomes for diagnosing early gastric cancer. The authors should discuss the challenges to overcome for clinical use of AI in this field as well.

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Manuscript NO: 74661

Title: Usefulness of artificial intelligence in early gastric cancer

Provenance and peer review: Invited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05569322

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Doctor, Surgeon, Surgical Oncologist

Reviewer's Country/Territory: China

Author's Country/Territory: Italy

Manuscript submission date: 2021-12-31

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2022-02-10 09:28

Reviewer performed review: 2022-02-15 14:12

Review time: 5 Days and 4 Hours

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
Re-review	[Y] Yes [ ] No
Peer-reviewer	Peer-Review: [Y] Anonymous [ ] Onymous

| statements | Conflicts-of-Interest: [   ] Yes   [Y] No |

SPECIFIC COMMENTS TO AUTHORS

In this minireview, the author introduce the use of Artificial intelligence (AI) in gastric cancer diagnostics to increase diagnostic efficiency, especially for the early detection of lesions which   bothsupport the less experienced endoscopis and the one experienced. The article presents the latest developments in the diagnosis of EGC with AI. However, the author does not discuss much about the limitations of AI in diagnosis of EGC.