PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 67567

Title: Application of endoscopic ultrasonography for detecting the esophageal lesion based on convolutional neural network

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 00722786

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor, Chief Doctor, Research Assistant Professor

Reviewer's Country/Territory: Serbia

Author's Country/Territory: China

Manuscript submission date: 2021-04-27

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2021-05-04 18:51

Reviewer performed review: 2021-05-04 19:44

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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

Dear Authors,   The manuscript "Application of endoscopic ultrasonography for detecting the invasion depth and origin of esophageal lesion based on convolutional neural network" is concise, clear, comperhensive and interesting for readers of the WJG. Thank you

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Reviewer's code: 04761670

Position: Peer Reviewer

Academic degree: MBBS, MD, MSc

Professional title: Senior Lecturer

Reviewer's Country/Territory: Egypt

Author's Country/Territory: China

Manuscript submission date: 2021-04-27

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2021-05-01 09:02

Reviewer performed review: 2021-05-13 23:50

Review time: 12 Days and 14 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Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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
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SPECIFIC COMMENTS TO AUTHORS

The authors are investigating deep learning network as a model of artificial intelligence application in classification of SEL in the esophagus and they have done great efforts. The AI is increasing in applications in various fields of endoscopy and in EUS with long learning curve, a lot of expectations are crossed upon. The deep learning network is one of the methods used in machine learning and the results shown here are optimistic but the authors should have correlated accuracy to the tumor site and size. I believe that they could have got better accuracy with larger tumors. Correlation to the final diagnosis either benign or malignant would be an addition to their valuable work. The haziness of images in the first three layers attributed to pressure of the balloon could be addressed in further prospective work either by taking images at variable pressures and it should be clear from your work this was a problem at which level in the esophagus upper, mid or lower or by the nature of the tumor itself. The variability in image quality was addressed in the study limitations. Also, the number of images per lesion should be optimized.