



PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63809

Title: Application of artificial intelligence-driven endoscopic screening and diagnosis of gastric cancer

Reviewer's code: 05224959

Position: Editorial Board

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: Spain

Author's Country/Territory: Taiwan

Manuscript submission date: 2021-02-03

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-02-10 11:12

Reviewer performed review: 2021-02-13 20:50

Review time: 3 Days and 9 Hours

Scientific quality	<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 Grade E: Do not publish
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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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Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

SPECIFIC COMMENTS TO AUTHORS

The authors are dealing with the AI in gastric cancer. In this paper, they conduct a comprehensive review of the AI applications in this type of cancer. AI-assisted endoscopy is a useful tool to assist physicians in the screening and diagnosis of gastric cancer. Hsiao et al. show the current status of the main applications of AI in gastric cancer and indicates directions for future research as well as implementation in clinical practice from a clinical perspective. The authors are of the opinion that the application of artificial intelligence in gastroenterology is “in its infancy”. Although performance on some tasks is better than that of experienced endoscopists, there has been no attempt of clinical trials. It would be appropriate for authors to include a summary of the organisation of the paper at the end of the introduction. The references are complete and up to date, however, I would like to recommend some references from 2021: - Yu, H., Singh, R., Shin, S. H., & Ho, K. Y. (2021). Artificial intelligence in upper GI endoscopy - current status, challenges and future promise. *Journal of Gastroenterology and Hepatology*, 36(1), 20-24. - Ikenoyama, Y., Hirasawa, T., Ishioka, M., Namikawa, K., Yoshimizu, S., Horiuchi, Y., ... & Tada, T. (2021). Detecting early gastric cancer: comparison between the diagnostic ability of convolutional neural networks and endoscopists. *Digestive Endoscopy*, 33(1), 141-150. - Abe, S., & Oda, I. (2021). How can endoscopists adapt and collaborate with artificial intelligence for early gastric cancer detection?. - Zhou, C. M., Wang, Y., Ye, H. T., Yan, S., Ji, M., Liu, P., & Yang, J. J. (2021). Machine learning predicts lymph node metastasis of poorly differentiated-type intramucosal gastric cancer. *Scientific Reports*, 11(1), 1-7. - Wu, L., He, X., Liu, M., Xie, H., An, P., Zhang, J., ... & Yu, H. (2021). Evaluating the Effects of An Artificial Intelligence System on Endoscopy Quality and Preliminarily Testing its Performance on Detecting Early Gastric Cancer: A Randomized Controlled Trial. *Endoscopy*, (AAM). -



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Xia, J., Xia, T., Pan, J., Gao, F., Wang, S., Qian, Y. Y., ... & Liao, Z. (2021). Use of artificial intelligence for detection of gastric lesions by magnetically controlled capsule endoscopy. *Gastrointestinal Endoscopy*, 93(1), 133-139. The manuscript is very interesting. The motivation and justification are appropriate. The paper is well written in correct English. Now I include some typographical errors: For: have plauded read: have lauded For: of 74 patients images read: of 74 patients' images