PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

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Title: Radiomics for predicting perineural invasion status in rectal cancer

Reviewer's code: 02728463

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Lithuania

Author's Country/Territory: China

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Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-06-03 16:22

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Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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

Dear Authors, I would like to congratulate you with this fine work. Obviously, PNI is a worse prognostic marker, however, this should be incorporated in a broader list of other risk factors. I have few comments. First, how was rectal cancer defined at your hospital (for ex.is it 12cm or 15.16 cm from the anal verge)? What is high, or mid/low rectal cancer? What is the initial work up of your RC patients? Is CT scan a standard initial work up for the RC? and not MRI? What is the standard treatment for patients with RC at your hospital? How would it change the treatment plan if PNI diagnosed preoperatively? What is the sensitivity and specificity for diagnosing PNI using radiomics? Thank you in advance.

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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

Thank you for the opportunity to revise the paper entitled "CT radiomics for predicting perineural invasion status in rectal cancer". The study aimed to investigate the potential value of a radiomics prediction model from portal venous phase CT imaging for PNI status in rectal cancer patients. This is a well-conducted study that addresses an interesting problem using an emerging research method (radiomics / machine learning) with relevant results. I have only minor comments. 1) Is there a conceivable risk of bias including in the analysis upper and mid-lower rectal cancer together? They differ in imaging evaluation, and outcomes [1]. 2) The authors refer to the evaluation of EMVI and LVI as research perspectives using radiomics or deep learning. However, these parameters are well evaluated with MRI. What about CT-scan? 3) A minimal typo pg 5 line 4 ("Figure 2"). [1] Clancy C, Flanagan M, Marinello F, O'Neill BD, McNamara D, Burke JP. Comparative Oncologic Outcomes of Upper Third Rectal Cancers: A Meta-analysis. Clin Colorectal Cancer. 2019 Dec;18(4):e361-e367. doi: 10.1016/j.clcc.2019.07.004. Epub 2019 Jul 11. PMID: 31445919.