PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 70681

Title: Artificial intelligence in the diagnosis and management of colorectal cancer liver metastases

Provenance and peer review: Invited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03093768

Position: Editorial Board

Academic degree: MD

Professional title: Associate Professor, Chief Doctor, Doctor, Surgeon, Surgical Oncologist

Reviewer's Country/Territory: China

Author's Country/Territory: Italy

Manuscript submission date: 2021-08-13

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-08-15 02:33

Reviewer performed review: 2021-08-20 13:39

Review time: 5 Days and 11 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Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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

Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

In general, this is an excellent and comprehensive review on the application of artificial intelligence in colon cancer liver metastasis. There are not many studies on this topic at present, and the authors have almost included all the latest literature and conducted this review. The language is fluent and the manuscript is worth of reading. There are some issues that the authors should consider: 1. Preoperative non-invasive identification of predominant HGPs could further explore the ability of HGPs as a potential biomarker for clinical treatment strategy, reflecting different biological pathways. This is the research base of MR radiomics to predict HGPs classification in the "Histology-based models" section. The value of HGPs classification maybe needs to be clarified. 2. The conclusion is too long, and most of which belong to the limitations of current clinical application of AI, including the studies of colon cancer liver metastasis.The limitations are recommended to write in a separate part. 3. It is recommended to add a table to briefly analyze and arrange the existing research, including sensitivity, specificity, and accuracy, size of training dataset and verification dataset, machine learning model, study design, etc., so that readers can obtain information more intuitively.