

March 21, 2023

Dear editors and reviewers:

Thank you very much for providing us an opportunity to revise our manuscript (Manuscript NO:83825 and Title: Radiomics Model Based on Contrast-enhanced CT Imaging to Predict Early Recurrence for Patients with Hepatocellular Carcinoma after Radical Resection).

The comments from editors and reviewers are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. In this revision, we have addressed all the concerns in detail and provided further explanation of the comments.

My responses to the comments are described as follows. We hope that our revised manuscript is now suitable for your requirement.

Thank you very much again for your consideration.

Sincerely,

Weijia Liao

E-mail: liaoweijia288@163.com

We appreciate all the editor's and reviewers' positive comments as well as the constructive suggestions as discussed below.

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade C (A great deal of language polishing)

Conclusion: Major revision

Specific Comments to Authors: In this study, the authors developed a preoperative radiomics model to predict early recurrence among patients with single hepatocellular carcinoma. The radiomics scores based on contrast-enhanced CT images and serum AFP were independent indicators and were used to develop this combined model, which showed modest accuracy and clinical utilities. However, I have the following concerns about this study.

Q 1: In 2.1 Patients section, “We retrospectively enrolled 537 HCC patients from 2 institutions (Institution 1 set as training cohort: Affiliated Hospital of Guilin Medical University, 277 enrolled from 10/2009 to 5/2017; Institution 2 set as validation cohort: Peking University People's Hospital, 125 enrolled from 6/2010 to 12/2017) who underwent radical resection. According to the exclusion criteria in Figure 1, 277 patients met the requirements in institution 1 and were set as the training cohort, while 125 patients in institution 2 were set as the validation cohort.” The authors have described the information about the two cohorts in the bracketed content, so there is no need to repeat it.

Response 1: Thank you for your revision comments. We have deleted the duplicate parts and modified the statements appropriately.

Q 2: The first appearance of the abbreviation in the manuscript should be given in full term, for example: MVI.

Response 2: According to your valuable comments. The full text was further reviewed and full terms were given for abbreviations that appeared for the first time in the article, like microvascular invasion(MVI), aspartate amino transferase (AST).

Q 3: In the second paragraph of the discussion section, the authors discussed some deficiencies of several previously reported models for predicting HCC recurrence.

Moreover, the authors mentioned the development of liquid biopsies, would like to see a comparison of this approach with the radiomics model mentioned in this paper. In other words, what is the advantage of the preoperative radiomics model compared to liquid biopsies?

Response 3: Thank you very much for your constructive comments. It would be an interesting research. However, it is not the scope of this current work, we would love to investigate it in the future.

Q 4: In the discussion, “Hence, we employed radiomics to explore more details from contrast-enhanced breast CT images,” Given that the authors' previous statements were “contrast-enhanced CT”, the different expressions can be confusing.

Response 4: Thank you for the time and effort spent in reviewing the manuscript. We have standardized the term.

Q 5: The font size and color of the images should be unified, for example: Figure 2 and Figure 7.

Response 5: According to your hint. The font size and color of the image is modified to the same. We know we have some imperfections, thank you for your high level comments again, and we are always trying to improve our research and writing skills. Thank you very much for your attention and time. Looking forward to hearing from you. Best regards.

Reviewer #2:

Scientific Quality: Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (High priority)

Specific Comments to Authors: The authors reported their experience on the development of a radiomics model based on preoperative contrast-enhanced CT (contrast-enhanced CT) to evaluate early recurrence in patients with a single lesion of hepatocellular carcinoma (HCC). They retrospectively evaluated 402 patients from two centres who were diagnosed with a single HCC and underwent radical resection. A total of 1915 radiomics features were extracted from contrast-enhanced CT images, and 31 of them were used to determine the radiomics scores, which showed a significant difference between the early recurrence and nonearly recurrence groups. The authors were able to show that radiomics scores and serum AFP were

independent indicators and were used to develop a combined model to predict early recurrence. The paper is well written and easy to follow. The authors should be congratulated for their work. I have no minor nor major concerns with regard to this paper.

Response: Thank you for your comments and your recognition of our work, and making a summary of our manuscript. We are always striving to improve our research work and our writing. Looking forward to hearing from you soon. Best regards.

EDITORIAL OFFICE'S COMMENTS

Authors must revise the manuscript according to the Editorial Office's comments and suggestions, which are listed below:

(1) Science editor:

The manuscript has been peer-reviewed, and it's ready for the first decision.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade B (Very good)

Response: Thank you for your precious comments and advice. We have tried our best to polish the language in the revised manuscript. At the same time, we have uploaded the file of the revised manuscript and relevant file.

(2) Company editor-in-chief:

I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Gastroenterology, and the manuscript is conditionally accepted.

I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors.

Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1 Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...".

Response: As requested by your journal, all figures showing the same or similar contents have been revised to a uniform presentation. And, we have marked the modified parts in red in the manuscript.

Please provide decomposable Figures (in which all components are movable and editable), organize them into a single PowerPoint file. Please authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.

Response: Regarding the format of the charts, we checked and improved the inappropriate areas. For example, we have adjusted the table row and column widths appropriately so that they are aligned. We are very grateful to you for pointing out the mistakes we made in our carelessness, and we are deeply sorry about it. We examined the manuscript carefully and found the error in the article and now the corresponding position in the article has been corrected according to your requests and suggestions. We sincerely thank the editors' and all reviewers' valuable feedback that we have used to improve the quality of our manuscript. If there are any other modifications we could make, we would like very much to modify them and really appreciate your help. Looking forward to hearing from you. Best regards.