

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: The paper is generally well written and structured. However, in my opinion, the article has some shortcomings in regards to some data analyses and text. More generally, I suggest focusing the manuscript on the scientific results rather than on the Innovation. Figure caption should have a brief title that describes the entire figure and the description of the figure is required in the text.

Thank you for the thoughtful review, we agree with your conclusions and have made attempts to address each of the points mentioned. In an attempt to shift the focus toward more scientific results, several studies mentioned in the original manuscript now have accompanying statistical data used to back up the conclusions being made. In-text data has been included for the Sanford et al. 2020, Schaffter et al. 2020, and Chilamkurthy et al. 2018 studies. Additionally, two new reference studies (McKinney et al. 2020 and Wu et al. 2020) were included in the "Limitations" section to highlight disparities in AI vs radiologist comparison studies. Also, a title has been added to the Figure 1 description and the figure is briefly described in the text.

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (High priority)

Specific Comments to Authors: The manuscript entitled "Artificial Intelligence: Advances and New Frontiers" reports a mini review that introduces the current progresses of artificial intelligence (AI), including both successes and limitations, in the field of radiology and provides opinions on AI for radiologists. Overall, the manuscript is well prepared and well written. I recommend publication of this manuscript.

Thank you for the kind words, we are very appreciative of your comments. We are pleased and honored by your recommended publication of this manuscript.

Reviewer #3:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: It is a great manuscript focus on AI application in medical imaging. As you can see from the title, the authors' topic is AI and medical imaging. The paper mainly summarizes

the application progress and limitations of AI in radiological imaging medicine. Obviously, medical imagings are not only radiological imagings, but also endoscopic imagings or videos, and pathological imagings. If relevant discussions are not held at the same time, the subject headings should be appropriately qualified.

Thank you for taking the time to review our manuscript and for your thoughtful comments. The intention of the article was to focus specifically on AI usage in the field of radiology. The subject heading has been appropriately qualified.

EDITORIAL OFFICE'S COMMENTS

(1) Science editor:

1 Scientific quality: The manuscript describes a minireview of the artificial intelligence. The topic is within the scope of the AIMI.

(1) Classification: Grade B and two Grades C;

(2) Summary of the Peer-Review Report: The manuscript reports a mini review that introduces the current progresses of artificial intelligence, including both successes and limitations, in the field of radiology and provides opinions on AI for radiologists. Overall, the manuscript is well prepared and well written. The questions raised by the reviewers should be answered;

(3) Format: There is 1 table and 1 figure;

(4) References: A total of 48 references are cited, including 31 references published in the last 3 years;

(5) Self-cited references: There is no self-cited reference; and

(6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially references published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately.

2 Language evaluation: Classification: Grade A and two Grades B.

3 Academic norms and rules: No academic misconduct was found in the Bing search.

4 Supplementary comments: This is an invited manuscript. No financial support was obtained for the study. The topic has not previously been published in the AIMI.

5 Issues raised:

(1) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022.;

The original table and both figures have been attached in a PowerPoint document. Copyright information has been added as described.

(2) PMID numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout; and

All PMID numbers and DOI citations have been added where applicable with all authors listed.

(3) If an author of a submission is re-using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the figure to be re-published; and correctly indicating the reference source and copyrights. For example, "Figure 1 Histopathological examination by hematoxylin-eosin staining (200 ×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. World J Gastroenterol 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]". And please cite the reference source in the references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable.

The table and two figures provided in the manuscript are all the original creations of the authors.

6 Re-Review: Not required.

7 Recommendation: Conditional acceptance.

(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 Artificial Intelligence in Medical Imaging, 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: ...". 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. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022. If an author of a submission is re-using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the figure to be re-published; and correctly indicating the reference source and copyrights. For example, "Figure 1 Histopathological examination by hematoxylin-eosin staining (200 ×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. *World J Gastroenterol* 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]". And please cite the reference source in the references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable.

The submission is in compliance with all these rules.