

Manuscript 61729: Review comments and responses

Reviewer #1:

Scientific Quality: Grade C (Good); **Language Quality:** Grade B (Minor language polishing); **Conclusion:** Major revision

Specific Comments to Authors: The manuscript discussed the discrepancies between the clinical and imaging features of COVID-19 through analyzing three clinical case scenarios. In addition, the authors talked about the diagnostic sensitivity, specificity, and the positive and negative predictive values of several imaging modalities for the rational management of patients with this enigmatic disease, including the imaging techniques for pulmonary and extra-pulmonary manifestations of COVID-19, such as chest X-Ray (CXR), Computed Tomography (CT), Lung Ultrasound (LUS), neuroimaging, cardiovascular imaging, and abdominal imaging. The analysis of these imaging modalities is very comprehensive.

Answer: Thanks for the positive and encouraging comments

However, there are still some concerns.

(1) The analysis of other imaging tools, such as magnetic resonance imaging (MRI), are not mentioned in this manuscript, which are also widely used for diagnosis of COVID-19? Please add the review of the utility of MRI and or other imaging tools.

Answer: Thanks for the comment. In fact, we have made the original submission in early December and the peer review process was much delayed from the Journal's side. A lot of new evidence came up after the submission including additional imaging modalities including MRI of lungs as suggested by the reviewer which are now included in the highlighted revision.

(2) Please cite references in Core tip and Introduction appropriately, especially the introduction of COVID-19.

Answer: Thanks for highlighting this issue. We have now added new references in the introduction section but not in the core tip (as per the Journal's author's guidelines).

(3) The authors conducted case studies to prove that there exist discrepancies between the clinical and imaging features of COVID-19. The patients in the case study is middle-aged or elderly people. Please also involve the subjects of youth. In addition, there is no analysis and discussion of possible reasons that cause the discrepancy in each case study. I find that the authors made great efforts in the review of imaging studies in the diagnosis of COVID-19, instead of reporting more evidence or studies of the relationship/ discrepancies between the clinical and imaging features.

Answer: Thanks again for highlighting this issue. We have now added clinical and imaging discrepancies among the youth and children (though not with any additional images that we could procure) with additional references towards the end of the manuscript. We have now added reasons for the discrepancy in the paper in the discussion section as suggested by the expert reviewer.

(4) Artificial intelligence (AI)-based algorithms have been widely used to screen COVID-19 in many studies, like CXR, CT, etc. However, the authors only reviewed the studies regarding CXR only, which is not enough. Please also review the studies of AI-based algorithms on other imaging modalities.

Answer: Thanks for highlighting this issue. We have now added AI-based algorithms for other imaging modalities especially CT scan. However, we could not find good evidence for other modalities such as ultrasound scan and MRI.

(5) In clinical practice, the clinicians generally combine the reverse transcriptase polymerase chain reaction (RT-PCR) test and some imaging examinations to diagnose COVID-19. They may encounter the problem of the discrepancies between the clinical and imaging features. Are there any studies that talk about how the clinicians deal with such problem?

Answer: Thanks again for this comment. We have added new points in the revision to address this issue with appropriate references in the discussion section.

(6) Most of the studies reviewed in this manuscript are nation-based (the data comes from a small region or one country only). Please also include more studies that focus on analyzing the data from the world, which is very important for more accurate conclusion.

Answer: Thanks for highlighting this point. We have now added new data and many more studies and systematic reviews from different regions of the world that emerged after submission of the work earlier in December to address this comment.

(7) Please revise some grammar mistakes or typos in the manuscript. Such as “be aware off” on page 4, “The diagnostic odds of GGO with other features is reported as 20” on page 15, “Unenhanced CT chest may be considered as the as the best imaging modality in patients...” on page 15, and “where RT-PCR is considered as the gold-standard and the other modalities like CXR, CT chest and LUL are compared to RT-PCR...” on page 22.

Answer: We have made a thorough language revision in the entire manuscript to avoid all the grammar and syntax errors in the new version of the paper.

(8) Table 3 reports the sensitivity, specificity, PPV and NPV of various investigations that were used in the diagnosis of COVID-19 infection, including RT-PCR, CXR, CT and LUS. The table simply cited the results from 1-2 papers, which is not convincing

enough. Therefore, I suggested that the authors take average of results of several studies for each diagnosis tool.

Answer: Thanks again for the comment. We have used pooled data from several systematic reviews and meta-analyses incorporating several studies for generating the evidence in the manuscript and therefore, this matter is addressed in the current version of the manuscript

(9) Section “Discussion” should be added in the manuscript.

Answer: We have added a section discussion in the revised version of the paper.

LANGUAGE QUALITY

Please resolve all language issues in the manuscript based on the peer review report. Please be sure to have a native-English speaker edit the manuscript for grammar, sentence structure, word usage, spelling, capitalization, punctuation, format, and general readability, so that the manuscript’s language will meet our direct publishing needs.

Answer: The manuscript originates from the UK and we have now made a thorough language revision to address errors in the initial submission to meet the Journal’s specifications.

5 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:* Reviewer 05214685's comment is invalid. He recommended the authors to cite his 4 references.

Answer: Unfortunately, this was the reason for the big delay in publishing this very highly important paper submitted in early December 2020.

(2) *Editorial office director:*

(3) *Company editor-in-chief:* I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Radiology, 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.

Answer: Thanks a lot for the conditional acceptance of our paper though much delayed because of issues with the peer review.

We have now made all the changes in the revised version of the paper to meet the high quality of World Journal of Radiology and please publish this important paper to benefit the global scientific fraternity fighting against the COVID-19 pandemic