Iranian Journal of Radiology
Volume 18 · Issue 1 · e106612

OPEN PEER REVIEW

Comparison of Clinical and Chest CT Characteristics of Adult Patients with COVID-19 and Mycoplasma Pneumonia

Xiaoqiang Wang, Zhengtong Wang, Zhanguo Sun, Yueqin Chen, Wenwen Zhao, Xiaolong Liu, Zhongsheng Zhang, Wenheng Qin, Xiang Guo, Weiwei Wang, Wei Liu

SUBMITTED	REVISED	ACCEPTED	DOI
19 Jun 2020	16 Dec 2020	27 Dec 2020	10.5812/iranjradiol.106612

About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

More about open peer review: brieflands.com/knowledgebase/opr

Contents

1 **Original submission** Referee 1, Referee 2, Referee 3, Editor-in-Chief 2
2 **Revision 1** Referee 3, Referee 1, Referee 2, Editor-in-Chief 4
Authors' reply to reviewers 5
Reviewer and editor comments 11
3 **Revision 2** Editor-in-Chief 12
Authors' reply to reviewers 13
Reviewer and editor comments 15

1 Original submission

4 comments · 28 Jun 2020 – 14 Jul 2020

Referee 1 Reviewer

MINOR REVISION 28 Jun 2020

Hi
Overall, the design, analysis, and writing of this manuscript are appropriate; the following minor revisions must be considered:
1. MP must be written in full the first time it is used.
2. The study design is case-control, and this must be added to the first section of the Methods.
3. The Results section of the abstract is too long and must be summarized.
4. When more than one p-value is presented, “respectively” must be added at the end of the sentence.
5. Some results are presented in the Methods section: "(16 women, 29 men; mean age: 42.71±13.65 years)", "(32 women, 23 men; mean age: 36.47±13.40 years)", "Of the 45 patients with COVID-19 infection, 2 cases had diabetes, 2 had hypertension, and 1 had chronic obstructive pulmonary disease. The median time from the onset of symptoms to presentation was 3 days (interquartile range [IQR]: 1 to 6).", and "Of the 55 patients with MP infection, 2 cases had diabetes, 1 case had hypertension, and 1 case had chronic liver disease. The median time from the onset of symptoms to presentation was 4 days (IQR: 2 to 7)."

Referee 2 Reviewer

MAJOR REVISION 4 Jul 2020

Dear author,
Thank you for submitting your manuscript to our journal.
I think your work is explained in detail.
Comments:
-You have considered these inclusion criteria for COVID-19:
(1) first-diagnosed adult outpatients; (2) The RT-PCR results of throat swabs or sputum were positive for SARS-CoV-2; (3) Patients presented with symptoms and positive CT findings.
I would like you to clarify “First-diagnosed adult outpatients”.
I also wonder why you have considered CT findings as an inclusion criterion. Since one of your study aims is to determine the imaging features of COVID-19, this introduces serious bias into your work.
I would like you to explain how you have overcome this bias; otherwise, you should exclude this group and redo the analysis.

-As for the exclusion criteria:
Exclusion criteria: (1) Follow-up cases; (2) Cases who were confirmed to have mixed infections; (3) Cases with incomplete clinical or chest CT image data
Can you explain the follow-up cases? I think you didn’t mention any F/U in the manuscript.
And for the second item, how did you confirm the superinfection?
Regards.

Referee 3 Reviewer

MAJOR REVISION 5 Jul 2020

2) Please provide more detail about follow-up cases in the exclusion criteria.
Best Regards

Editor-in-Chief MAJOR REVISION 14 Jul 2020

Dear authors,
Your article needs Major Revision.
Regards

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear editors and reviewers,

Thank you very much for your letter and we deeply appreciate the time and effort you've spent in reviewing our paper submitted to Iranian Journal of Radiology *(ID: 106612)*. According to your comments, we have checked and revised the manuscript carefully. We submit here the revised manuscript as well as the response to the comments of reviewers. All the changes have been highlighted by red in the redressed version.

If you have any further question about this paper, please don't hesitate to let us know. Thank you very much for all your help and looking forward to hearing from you soon.

Best regards

Yours Sincerely,

Xiaoqiang Wang, MD & Zhanguo Sun, MD

Please find the following reply to the comments of reviewers:

Reply to Reviewer 1,

1 - MP first time must be written in full format.

Reply: Thanks for your reminder, MP have been written in full format for the first time in the redressed manuscript. Sorry for our low-level mistake.

2 - The design of study is case-control and it must be added to the first section of method.

Reply: Thanks for your kind comment. The specific content of this case-control study has been added to the first section of method. Thank you.

3 - The abstract result section is too long and it must be summarized.

Reply: Thanks for your kind suggestion. We have tried to summarize the abstract result section. We hope that it has reached to the publication standard!

4 - When, more than one p-value presented; at the end of sentence must be added, respectively.

Reply: Thanks for your kind comment. All P-values have been added at the end of sentence respectively.

5 - Some results presented in the method section "(16 women, 29 men; mean age: 42.71±13.65 years)", "(32 women, 23 men; mean age: 36.47±13.40 years)", "Of the 45 patients with COVID-19 infection, 2 cases had diabetes, 2 had hypertension, and 1 had chronic obstructive pulmonary disease. The median time from the onset of symptoms to presentation was 3 days (interquartile range [IQR]: 1 to 6).", and "Of the 55 patients with MP infection, 2 cases had diabetes, 1 case had hypertension, and 1 case had chronic liver disease. The median time from the onset of symptoms to presentation was 4 days (IQR: 2 to 7)."

Reply: Thanks for your pointing this out. The contents in the method section you indicated have been moved to the result section. Your valuable suggestion allows us to recognize our inadequacies, and we will do our best to avoid similar mistakes in our future research work. Thanks again.

Reply to Reviewer 2,

1 - you have considered this inclusion criteria for COVID-19:

(1) first-diagnosed adult outpatients; (2) The RT-PCR results of throat swabs or sputum were positive for SARS-CoV-2; (3) Patients presented with symptoms and positive CT findings.

- I would like you to clarify the “First-diagnosed adult outpatients”

- And I also wonder you have considered CT findings as an inclusion criteria. Since one of your study aim is to determine the imaging features of the COVID-19, this makes a serious bias to your work.

- I would like you to explain how you have overcome this bias and otherwise you should exclude this group and redo the analysis.

Reply: Thank you very much. These comments are very important, and they have been taken seriously and fully discussed by our team:

(1) Following your comments, we find that the phrase *“First-diagnosed adult outpatients”* were really easy to be misunderstood. What we wanted to express was that all these adult outpatients had not undergone any examination or treatment before presenting to hospital, and all referral patients or return-visit cases who had been diagnosed with COVID-19 or MP were excluded. We are sorry for our limited English

expression ability. We have changed the “First-diagnosed adult outpatients” to the “First-presented adult outpatients”. Hope it can express our meaning correctly. Thanks again.

(2) Regarding whether we use CT findings as an inclusion criterion. For the item of *“positive CT findings”* in the inclusion criteria, what we wanted to express was that, during patients screening process, we only included patients who had abnormal CT findings. The purpose of our study was to better compare the differences of the CT findings between the two groups, so we excluded the patients who had normal CT results. Actually, this kind of proportion was very small, and, within our knowledge, it might not make a serious bias. But on this issue, if it is possible, we sincerely hope to get your further guidance and suggestion. Thank you very much.

In view of the possibility that *“positive CT findings”* may be misunderstood as *“patients with typical COVID-19 CT findings”*. We removed “positive CT findings” from inclusion criteria, and added “Cases with normal CT findings” in the exclusion criteria, in that case it would make the screened cases consistent with the main purpose of our study.

(3) We highly appreciate your rigorous scientific research spirit. Actually, we do had tried our best to control the bias in this case-control study. For example, we have matched the two groups as far as possible, and the radiologists who evaluated the CT images were blinded to the final diagnosis. Your comments make us realize there must be some shortcomings need to be overcome. To reduce the possibility of bias, we reviewed the patient data again, and formulated the same exclusion criteria for both

groups. Additionally, we added the detail information of patient inclusion and exclusion in the first section of the result. We hope what we did can make our paper more scientific and convincing，and less ambiguity or misunderstanding. Thanks again.

2 - as the exclusion criteria:

Exclusion criteria: (1) Follow-up cases; (2) Cases who were confirmed to have mixed infections; (3) Cases with incomplete clinical or chest CT image data

- Can you explain the follow up cases? I think you didn't mention any F/U in the manuscript.

- And for the second item how did you confirm the super infection?

Reply: Thank you for your comments. These questions have been taken seriously.

(1) *"Follow-up cases"* really refers to *"return visit patients"*，which means that the patients who have been diagnosed and treated days before and come to see the doctor again. Actually, according to your comments, we found that we made a mistake, there was overlap between inclusion criteria and exclusion criteria. In the inclusion criteria of the manuscript, we had mentioned *"first-presented adult outpatients"*, this criterion had already excluded the return visit patients, so we deleted the "follow-up cases" from the exclusion criteria.

(2) There were a variety of *pathogenic microorganism inspection test kits* routinely performed in patients with suspected pulmonary infection. Such as, coronavirus nucleic acid test, Mycoplasma Pneumoniae antibody test, chlamydia pneumoniae IgM test, syncytial virus antibody test, adenovirus IgM test, cytomegalovirus antibody assay,

Epstein-Barr virus antibody test, sputum general bacterial culture, sputum fungal smear examination, and sputum acid-fast bacilli smear examination et al. So, we could exclude most of the common encountered co-infections, and only patients who confirmed with simple COVID-19 or MP infection were finally enrolled in our study.

Reply to Reviewer 3,

1- Please define the abbreviation for first time.

Reply: Thanks for your reminder, we have defined the abbreviation for first time presenting in the manuscript. And we have checked throughout the paper again carefully. Thank you very much.

2- Please define more about: Follow-up cases in the exclusion criteria.

Reply: *'Follow-up cases'* mainly referred to *'return visit patients'* , which means that the patients who have been diagnosed and treated days before and come to see the doctor again. Actually, according to comments from you and Reviewer-2, we found that we made a mistake, there was overlap between inclusion criteria and exclusion criteria. In the inclusion criteria of the manuscript, we had mentioned *"first-presented adult outpatients"*, this criterion had already excluded the return visit patients, so we deleted the "follow-up cases" from the exclusion criteria. Thank you for pointing out our mistakes. We sincerely admire your rigorous scientific research spirit.

2 Revision 1

4 comments · 29 Jul 2020 – 13 Dec 2020

Referee 3 Reviewer — ACCEPT — 29 Jul 2020

Dear associate editor,
The revised manuscript could be acceptable for publication.
Regards

Referee 1 Reviewer — ACCEPT — 1 Aug 2020

Hi
From a methodological point of view, this manuscript is acceptable.

Referee 2 Reviewer — ACCEPT — 9 Aug 2020

Dear author,
I appreciate your time and precision in revising the manuscript.
I believe all the comments were considered in your revision.
Regards.

Editor-in-Chief — MINOR REVISION — 13 Dec 2020

Dear authors,
Your article needs Minor Revision.
Regards

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear editors and reviewers,

Thank you very much for considering our manuscript for publication in IJR *(ID: 106612)*. We are grateful to all editors and reviewers for the valuable suggestions provided, and we deeply appreciate the time you've spent. According to the comments for Minor Revision, we have checked and revised the manuscript carefully. We submit here the revised manuscript as well as the responses to the comments. All the changes have been highlighted by red in the redressed version.

We would be happy to make any further changes that may be required.

Best regards

Yours Sincerely,

Xiaoqiang Wang, MD & Zhanguo Sun, MD

Please find the following reply to the comments:

1-In the statistical analysis, please add the characteristics of the manufacturer for SPSS.

Reply: Thanks for your reminder, the manufacturer for SPSS have been added in the redressed manuscript.

2- In the clinical symptoms, you have mentioned 8 symptoms and only 6 P values. Please revise and correct.

Reply: We are very sorry we didn't express it clearly. Due to limited number of cases with some kinds of clinical symptoms, three pairs of similar symptoms were combined and analyzed respectively. We have made a correction in the manuscript. Thanks for your careful reviewing.

3-Please add abbreviations as footnotes in all tables.

Reply: Thank you. The abbreviations have been added as footnotes in all tables.

4-In tables 2-4, there is no mean comparison. If necessary please delete the demonstration below the table.

Reply: Thanks for your pointing this out. The mentioned demonstration has been deleted.

Besides, some language or formatting shortcomings were also improved and highlighted by red color, please kindly pay your attention and consideration. Thanks a lot.

3 Revision 2

1 comment · 27 Dec 2020

Editor-in-Chief

ACCEPT 27 Dec 2020

Dear authors,
Your article is acceptable for publication in IJR.
Regards