

Responses to reviewers

Reviewer 1: 03342506

1. Did the patient give consent prior publication?

Yes, the patient's pre publication consent form is attached.

2. There is lack of appropriate details related to patient history and demography. In particular it is not clear if the patient has any co-morbidities, apart from hypertension and gout. Does she receive any medications on regular basis? Her body weight index is of interest.

Beyond the co-morbidities of hypertension and gout, the patient had no other comorbidities. And was not taking any medications on regular basis (added, 2nd paragraph, p.6). Her body mass index was 24.4 (added, last paragraph, p.5).

3. It would be beneficial if the authors can give more details on outpatient evaluation and give a comment on how she was transferred to the hospital. From epidemiologic standpoint it is interesting to know if she was isolated before admission.

We have been unable to obtain any further details regarding the patient's outpatient evaluation. Our records indicate that the personnel at the referring hospital, Shenzhen People's Hospital, applied a suspected COVID-19 diagnosis, and proceeded immediately with isolating her and arranging a transfer to our hospital via a negative pressure ambulance (see 1st paragraph, p.6).

4. The authors stated that the patient received early non-invasive ventilation (NIV). In fact, she was admitted on January 25, 2020 with signs of hypoxemia PaO₂ of 52.8 mmHg and PaO₂/FiO₂ ratio of 251. The NIV was started in 4 days after admission when PaO₂/FiO₂ ratio worsened to 127 mmHg. There is lack of description how the patient was progressing during these days and I doubt it is an early initiation of NIV.

The patient's early progression is described in the last paragraph of p.7 and the 1st paragraph of p.8. We apologize if the term "early initiation of NIV" caused any confusion. In our hospital system, "early initiation of NIV" means NIV instituted

when patient's PaO₂/FiO₂ drops below 200 mmHg, as was done for the present patient(see the last paragraph of p.10/1st paragraph of p.11). This practice is “early” relative previous standard operational procedures in relation to patient status, and does not mean immediately upon admission.

5. While avoiding intubation is obviously appealing there are significant concerns among the clinicians with the use of NIV for this indication. In addition to the risk of delayed intubation NIV is associated with “leak” and increased risk of exposure for health care workers. Please elaborate on your rationale and how would you mitigate these risks (was the patient in negative pressure room, etc). Also, please comment on NIV vs high flow O₂ for predominantly hypoxemic respiratory failure.

We have added a more expanded considered discussion of appropriate selection of respiratory support and the ways to mitigate the exposure risk while using NIV to the end of the 1st paragraph on p.10, the last paragraph of p.10, continuing through the subsequent paragraph into p.11.

6. The pharmacotherapy “cocktail” included lopinavir/ritonavir antiviral tablets, thymosin, methylprednisolone, Xuebijing, low-molecular-weight heparin. The authors should state if medications were used off-label.

The medications were *not* used off-label. We now specify that our administration of these medicines were consistent with national guidelines, with an appropriate reference.

7. Recommendation to consider this treatment plan should be supported by more detailed description of rational to use these medications. An anti-inflammatory drug XueBiJing is not well known among clinicians worldwide. It would be beneficial if authors will add a comment and a reference of recent studies. Using steroids for viral infection, such as SARS, showed little benefit and may be even harmful. If the markers of inflammation were monitored the authors may add this information into their report. Please provide more elaborate rationale for your recommended approach

with regards to on-going controversies.

Use of XueBiJing injection is now further described in the 2nd paragraph of p.12, with the references 2,12-14. Use of steroids is now further discussed in the 1st paragraph of p.12, with the references 2, 9-11.

Reviewer 2: 02673241

Major: There have also been reports not recommending using corticosteroids in treatment with bundle pharmacotherapy. What are your thoughts regarding this? Additionally, what are your thoughts on the mechanisms of action of the various antiviral agents for which you expect effects to be observed? There is a need to discuss the aforementioned topics.

Use of steroids is now further discussed in the 1st paragraph of p.12, with the references 2, 9-11.

The mechanisms of action of the antiviral agents is now discussed in the 2nd paragraph of p.11.

Minor: The World Health Organization (WHO) designated the “novel coronavirus pneumonia” as “COVID-19” on February 11, 2020. Thus, there is a need to revise all mention of “novel coronavirus pneumonia” accordingly.

We have updated our terminology throughout the report to use the now commonly applied name of COVID-19 (first mention in the 1st paragraph of p.3 in the abstract, and the 2nd paragraph of p.5 in the text, rather than “ novel coronavirus (2019-nCoV)-infected pneumonia (NCIP)”.