PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 59494

Title: Positive RT-PCR Assay Results in Patients Recovered From COVID-19: A Case Series

Reviewer's code: 03782335

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: Kosovo

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Reviewer chosen by: Xi-Fang Chen (Quit in 2021)

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Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Authors of this case report unveil the complex role of PCR and CT imaging in COVID-19. The problems arising with false positive or false negative results can have important implications in case isolation and discharge strategies. Proposals suggested by the authors could be helpful in this regard (number of PCR tests, different site samples, CT imaging). On the other hand, I have some issues regarding this manuscript and they are as follows: 1. Authors suggest CT imaging as a viable option in discharging patients. But, WHO recommendations (WHO- Use of chest imaging in COVID-19: a rapid advice guide) suggest that CT imaging has a relatively low specificity, while chest radiography has a higher specificity. Chest radiography is less-resource intensive, is associated with lower radiation doses, is easier to repeat sequentially for monitoring disease progression, and can be performed with portable equipment at the point of care (which minimizes the risk of cross-infection related to patient transport). Therefore, the question arises why would a more expensive method like CT imaging be of general use in COVID-19 patients compared to chest radiography.   2. Authors have not discussed in their manuscript the important issue about RT-PCR not being an ideal proxy for infectivity. Viable virus particles have not been isolated more than 9 days after symptom appearance (Cevik et al. 2020, Lancet), while viral shedding has been observed in some cases up to 3 months. This might be an important cause of false positive RT-PCR.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

I thank authors for their detailed reply. Although author's purpose of this paper was not to explore the pros and cons of various patient examination techniques, the main message of their manuscript is that the decision to discharge COVID-19 patients should be made by performing a comprehensive analysis of the CT images. Since this isn't the actual recommendation from WHO and other organizations, one should be careful to present current line of evidence to readers and professional health workers. Therefore, in Discussion section authors should elaborate on "WHO rapid guide: Use of chest imaging in COVID-19" recommendations, such as the one that suggests that: "Compared to chest CT, chest radiography appears to have lower sensitivity and might have higher specificity. Chest radiography is less-resource intensive, is associated with lower radiation doses, is easier to repeat sequentially for monitoring disease progression, and can be performed with portable equipment at the point of care (which minimizes the risk of cross-infection related to patient transport). Chest CT has a relatively high sensitivity but a relatively low specificity and can be useful in patients with some pre-existing pulmonary diseases. However, the absence of radiological signs of pneumonia cannot completely exclude a viral infection. " Also, Cochrane review cited by authors should be included in the Discussion section. Cochrane review states that their meta-analysis has important limitations, such as inclusion of preprints, heterogeneity of the studies included in terms of robustness of the used methods and others. Cochrane review concludes that both X-ray and CT are good tests for confirming COVID‐19 diagnosis in people who have been diagnosed with COVID‐19 infection using another test. But, "CT scans may be less accurate in confirming or ruling out infection in people with only suspected COVID‐19". These are important issues to be discusses by the authors of the present manuscript.