

Peer Review File

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Comment 1: Introduction: The research background was not clearly addressed. Is there any value to investigate the effect of gender on the risk of recurrence? This issue must be clearly addressed.

Reply 1: We are very sorry for negligence of the importance to describe the value to investigate the effect of gender on the risk of recurrence. The research showed that Chinese males were more susceptible to SARS-CoV-2 infection than females and there are different symptoms between the males and females. Moreover, Gender differences are the most common patient information in clinical work. Therefore, we wondered whether there were gender differences in recurrent PCR positivity in COVID-19 patients and conducted a meta-analysis of recurrent PCR positivity in COVID-19 patients between different genders. We have made proper adjustments in the corresponding places (introduction section, line 17-21 page 3 and line 1 page 4) according to the to the suggestions.

Comment 2: Methods: The inclusion criteria were inappropriate. The inclusion criteria should contain the design, study type, research topic and reported data of eligible studies, rather than the characteristics of the subjects.

Reply 2: We are very sorry for negligence of the inappropriate inclusion criteria. The Inclusion criteria in this study included the following requirements: 1. The studies' design must conform to case inclusion and rationality; 2. The study type should be prospective or retrospective studies; 3. The research topic should cover the recurrent PCR positivity in COVID-19 patients; 4. The reported data of eligible studies should include the total number of males and the total number of females come from recurrent group and non- recurrent separately. We have made proper adjustments in the corresponding places (Study selection, line 12-17 page 4) according to the to the suggestions.

Comment 3: Publication bias is meaningless when the number of included studies is less than 9, according to the guideline released by the Cochrane.

Reply 3: We are very sorry for negligence of the inappropriate description in this part. We have removed the corresponding description and made proper judgments in the corresponding places (Results selection, line 20-22 page 6) according to the to the suggestions.

Comment 4: Discussion: Generally, the discussion section was ill-organized. The strength of this study was not reported, and the clinical implications of the results were not deeply discussed. The possible mechanisms underlying the negative findings should be clearly addressed. An extensive revision is needed.

Reply 4: We are very sorry for negligence of the inappropriate description in this part. In this revised discussion section, we first introduced the existence of recurrent PCR positivity of COVID-19 patients and the importance to investigate this group of people. Then, previous research showed the population susceptibility and severity of COVID-19 were different in genders, and our research suggested that there must another reason for the recurrent PCR positivity rather than gender differences. After that, previous research showed various clinical manifestations of COVID-19 showing differences in gender were related to ACE-2 and the distribution and content of the ACE-2 was different in genders, which related to patient susceptibility and severity of illness. And our study suggested that the distribution and content of the ACE-2 were nothing with recurrent PCR positivity. Many studies suggested that recurrent PCR positivity of COVID-19 patients were in asymptomatic condition, which seems to can be explained by above findings. Overall, we prefer to contribute the phenomenon of the recurrent PCR positivity to long-term PCR positivity rather than the relapse of diseases. We have made proper judgments in the corresponding places (discussion selection, page 6, 7 and 8) according to the to the suggestions.

Comment 5: Table 1: Some typo errors in NOS.

Reply 5: We are very sorry for the errors in NOS. We have made proper judgments in the corresponding places (table 1, page 14) according to the to the suggestions.

Comment 6: Figure 2: Font size of the words in this figure is too small.

Reply 6: We are very sorry for negligence of the inappropriate description in this part. We have made proper adjustments in the corresponding places (Figure 2, page 13) according to the to the suggestions.

Comment 7: Table 1: The authors reported the numbers of recurrence and non-recurrence, but the numbers of subjects in male and female were not reported. The numbers of male and female should be reported.

Reply 7: We are very sorry for negligence of missing some important data in this part. We have made proper adjustments in the corresponding places (Table 1, page 14) according to the to the suggestions.