

PEER-REVIEW REPORT

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Title: Comparative Profile for COVID-19 Cases from China and North America: Clinical Symptoms, Comorbidities and Disease Biomarkers

Reviewer's code: 05432012

Position: Peer Reviewer

Academic degree:MD

Professional title:Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Canada

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Reviewer chosen by: Ya-Juan Ma

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 Grade E: Do not publish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

SPECIFIC COMMENTS TO AUTHORS

Thank you for the opportunity of reviewing this interesting research. This study evaluates the differences in profiles of clinical symptoms, comorbidities and disease biomarkers between China and North America. In principle the idea has merit; however there are some issues with data affecting comprehensibility in full comparative profile.

Major comments: 1. Provide the details in search strategy and study selection, a PRISMA flowchart of study selection is recommended; 2. Please define the timing of blood sample collection (on admission or otherwise?), the timing of classification of disease severity. 3. How to assess the risk of bias in individual studies, and publication bias across the body of literature 4. How did you resolve the discrepancies in collected data. 5. The authors state “this observation was apparent in the cases from North America where patients with co-existing medical conditions were, on average, older (40 – 80 years) than their counterparts from China (18 – 75 years)”, the subjects of this study are COVID-19 Adults Cases? My specific points are as follows: Introduction: 1.The sentence " In December 2019, COVID-19 infection began to spread from Wuhan, Hubei, China where it was declared on January 30, 2020 as a public health emergency of international concern by the World Health Organization (WHO)" (Page3,line5)requires a reference 2. To date, the situation of COVID-19 pandemic has changed, the sentence“two of the most affected world populations with COVID-19”(Page4,line12) needs an update. Methods: 3. Please define “Aggregated Dataset”, Please elucidate the search strategy and study selection (databases? Study selection?), did you exclude the studies that examined populations were children or pregnant women? 4. Loss of smell and taste are two common symptoms of nervous system damage at a pooled prevalence of 35.04% (95% CI, 22.03%-49.26%) (Ibekwe TS, et al. Systematic Review and Meta-analysis of Smell and Taste Disorders in COVID-19. OTO Open

2020;4:2473974X20957975. doi: 10.1177/2473974X20957975.), are there any differences between China and North America? 5. Please define the time of clinical laboratory parameters. Significant differences between patients with severe or critical COVID-19 and non-severely ill counterparts were observed for liver enzymes, ALT and AST; kidney function parameters, urea and creatinine; biomarkers of myocardial function, troponin I and CK-MB; measures of coagulation, D-dimer. These laboratory parameters are used to diagnose liver injury, acute kidney injury, myocardial injury and pulmonary embolism. Would you add these laboratory tests results (including ALT, urea, troponin I, CK-MB, and D-dimer) in Table 4? Considered as a potential fatal complication, acute pulmonary embolism (APE) is recommended to be added in Table 1 if possible. 6. What's the mortality rate associated with COVID-19. 7. Liver diseases including? Discussion: 8. The authors state "the frequency of case severity was significantly higher in North American than China..... This may be due to the higher rates of clinical symptoms such as dyspnea, myalgia, diarrhea and chills noted in the North American cases" (Page13,line12). Dyspnea is associated severe pneumonia or ARDS, however symptoms of myalgia, chills, diarrhea and are not specific symptoms for severity of COVID-19. Diarrhea may indicate an involvement in gastrointestinal tract, which can be find in most non-severe patients. Currently, there is no firm evidence to suggest that severity of digestive symptoms corresponds to severity of COVID-19 clinical course. I totally agree that more organs or system (such as liver, kidney, heart, and coagulation system) are involved and the possibility of severity increases 9. A higher level of creatine kinase is due to a higher prevalence of chronic kidney diseases? How do you differentiate it from acute kidney injury (AKI)? 10. "Furthermore, the varied prevalence of comorbidities and status of healthcare services between China and North America may be other important factors affecting the COVID-19 profile" (Page16, line19) requires a reference.