

Reviewer 1

Dr. Hong Jiang and Colleagues analyzed the prognostic impact of coagulation disorder in 213 patients with COVID-19. They concluded that coagulation disorders were significantly more common in dead patients compared to survivors; specifically, PT and concentration of FDP are independent predictive factors for clinical outcomes. The study could be considered of value, though some points should be addressed. 1) The time and methods of laboratory test analysis have to be specified 2) Have the Authors evaluated the variations in laboratory test values? This point should represent an interesting point. 3) Median survival time seems very low. Could the Authors make a comment on this? Minor revisions I do not think this sentence is clear "Shorter length of stay was found for the dead compared with the survivors (6 (4-8) vs. 32 (22-36), $P < 0.001$)". In my opinion, "Median time to death was 6 (4-8) days, whilst median LOS was 32 (22-36) days in survivors" is preferable. Moreover, please specify what numbers in brackets refer to (range, 95% CI, IQR ?)

Reply: :

Dear reviewer, thank you for your thoughtful comments and suggestions.

- 1) All the blood samples for platelet count and coagulation function test were collected within 24 hours after admission. Platelet count was determined using the Sysmex XN-9000 (Japan), an automated hematology analyzer. The PT, APTT and TT were determined by the clot formation technique. The concentration of FIB, FDP and D-dimer were quantified by the nephelometric analysis. All the coagulation tests were performed using a Sysmex CS5100 automatic coagulation analyzer (Japan) and proprietary reagents.
- 2) According to medical records, some patients received repeated tests of coagulation function during hospitalization but not for all the patients. The changes of coagulation parameters may reflect the disease progression. However, in our present study, we focused on the prognostic value of coagulation parameters, so we only analyzed the data at the early stage of hospitalization.
- 3) The median survival time was low because the disease progressed rapidly in some patients. That's why we are trying to find out the early prognostic factors for the COVID-19 patients. The main cause of death for COVID-19 is acute respiratory distress syndrome. Usually, if the therapeutic strategies were effective within the first 1 or 2 weeks, the patients probably could survive for longer time and might recover after several weeks. "Median time to death was 6 (IQR 4-8) days, while median hospital stay was 32 (IQR 22-36) days in survivors" was used in the revised paper (Page 6), thank you for your suggestion.

We have specified all the 95% CI in the text, e.g. "OR 2.19, 95%CI 1.285-3.733, P=0.004". 95 % CI was only for the OR values in this paper. Besides all the IQR and 95%CI had been specified in the tables.

Reviewer 2- Comments to the Author

1. This study is very meaningful. If possible, please provide the statistical test effectiveness of the study.

Reply: Dear reviewer, thank you for your comment. The statistical test used in the present study has been reviewed by an expert of biostatistics. We have uploaded the biostatistics review certificate when we submitted our manuscript.

Reviewer 3

In this article, Lang Wang and colleagues provide important observation of possible prognostic factor for patients suffered from COVID-19. I believe this manuscript should provide clinical application for first line decision making though further validation might be necessary. However, considering this disease is an emergent issue now, urgent publication is acceptable. This manuscript is prepared ordinary and no much revision needed. The results are reasonable and adequate analysis was done from univariate to multivariate analysis to confirm the independent prognostic role of prolonged prothrombin time. The only suggestion is about the comorbidities. Is there any data about that and might be adjusted in multivariate analysis?

Reply:

Dear reviewer, thank you for your thoughtful comments and suggestions.

In the revised paper, we compared the comorbidities between dead and survivors, and included the comorbidities in the logistic regression. In the present study, variables with statistical significance in the univariate logistic regression were added to the multivariate model using forward selection entry criterion. Although univariate logistic regression showed that comorbidities including hypertension, cerebrovascular disease, chronic kidney disease and COPD might contribute to the risk of death in COVID-19 patients, no statistical significance was found for those factors in the multivariate analysis. And those factors were not kept in the multivariate model in the final step. Therefore, the final results were not changed. Pleased see the revised paper (Table 3).