

Dear Sir;

Firstly, we would like to thank you for your kind letter and for reviewers' constructive comments concerning our article (Manuscript ID: 05348869). These comments are all valuable and helpful for improving our article. All the authors have seriously discussed about all these comments. According to the reviewers' comments, we have tried best to modify our manuscript to meet with the requirements of your journal. In this revised version, changes to our manuscript within the document were all highlighted by using green colored text. Point-by-point responses to the reviewers are listed below this letter.

Major comments:

1. In 22% patients, transaminases were not available, while it is unclear in how many patients albumin and coagulation tests were performed. Moreover, relation between AST/ALT and albumin and INR, as liver function tests and with C-reactive protein, as inflammatory marker were not fully reported.

Thanks Sir for your constructive comment. We included, in the final analysis, the patients with the total set of reported liver function tests and inflammatory markers as added in the results section on page 9.

Elevated AST was also associated with elevated white blood cell count, Neutrophils and lymphocytes count and ratio, ALT, ALP, GGT, D-dimer, Ferritin, and CRP. Elevated ALT was associated with elevated white blood cell count, Neutrophils and lymphocytes count and ratio, AST, GGT, Serum total bilirubin, and Ferritin (**Tables 2, 4**) as added in the results section on page 9, 10. Further correlation analysis was performed between AST and ALT and laboratory markers was added (**Supplementary table 4**)

2. CPK results as enzyme related to heart and skeletal muscles injuries and to possible AST elevation should be considered

We agree with you on this point. But, unfortunately, at the time of the study, CPK enzyme testing was not performed in the quarantine hospitals affiliated with the Egyptian Ministry of Health. This was added to the study limitations on page 14.

3. Male gender, smoking, hypertension, chronic hepatitis-C, and lung involvement were associated with elevated AST or ALT. Surprisingly, in the text, no relation with BMI was reported questioning in how many patients it was recorded. Similarly it is unclear, if any, the relation with diabetes and drugs. Please specify and comment.

Thanks again for these valuable suggestions. Based on your comments, the relation between BMI and AST and ALT was added in tables 2 and 4 and supplementary table 4 that revealed no relation between AST and ALT and BMI. Diabetes mellitus was associated with elevation of

baseline ALT as added in the results section on page 9. Baseline elevations in AST and ALT were recorded on admission before treatment application.

4. Fibrosis-4 (FIB-4) index but not GI symptoms, was significantly higher in severe and critical patients. Was the FIB-4 index performed in all patients in whom transaminases were tested? Was it considered at admission to the hospital?

Thanks for letting us clarify it. Yes, the FIB-4 index was calculated in all patients in whom transaminases were available on admission as added in the methods section, page 7

5. In how many patients abdominal US were performed and available?

Unfortunately, abdominal US was not performed during the hospitalization of patients with COVID-19 in the quarantine centers affiliated to the Egyptian Ministry of Health.

We asked patients with a history of chronic liver disease, to bring their recent abdominal ultrasound reports for confirmation of their condition as reported in our study as added in the results section on page 9

6. Among the independent variables affecting outcome it is reported vitamin C intake. But food diary or vitamin C level considered? Which criteria were used for vitamin C intake?

Most of our patients were treated in governmental hospitals with a standardized protocol for laboratory testing and management. Accordingly, blood Vitamin C level was not measured for our patients. Vitamin C intake in our study is referring to supplementary vitamin C capsules as per the protocol of the Egyptian Ministry of health (1 gram daily capsules). As added in the results section page 10

7. Only 60 (13.98%) patients had gastrointestinal symptoms (87% of whom reported diarrhea). The prevalence of diarrhoea, nausea, vomiting, and abdominal pain was 9.51%, 2.01, 3.11%, and 3.84%, respectively. Was it and attrition or reporting bias with incomplete or selective report? Were gastrointestinal symptoms fully investigated and reported in all patients via a detailed form at admission to the hospital or during hospitalization? This point is particularly important because this study showed a very low overall and specific rate compared to literature data. Please further report, comment and explain

Thanks for this valuable comment. Gastrointestinal symptoms were fully investigated and reported in all our patients by their treating physicians on admission to the hospital and during hospitalization.

We found different reports for the prevalence of GI symptoms among studies from different countries in the literature as we highlighted in the discussion section on page 13. Some of them were similar to figures from our study and some with much higher prevalence.

Diarrhoea was the most common GI symptom in our cohort, similar to findings from **Wang et al., 2020**^[25].

The prevalence of diarrhoea, nausea/vomiting, and abdominal pain in their systematic review and meta-analysis was 9.1%, 5.2%, and 3.5%. The predominant GI symptoms differ among countries ^[25-27]. In China, for example, **Luo et al., 2020**^[26] reported anorexia, nausea, and vomiting as the frequent symptoms in two-thirds of their patients while diarrhoea and abdominal pain presented in 37% and 25% of their patients, respectively. A meta-analysis by **Wan et al., 2020** (included 55 studies from China, 1 from Austria, 1 from the USA, 1 from Spain, and 2 from Singapore) reported the prevalence of GI symptoms as diarrhoea (53 studies, 8604 patients: 11.2%), nausea and vomiting (33 studies, 6165 patients: 10.0%), loss of appetite (15 studies, 2540 patients: 21.3%), and abdominal pain 14 studies, 2203 patients: (4.6%)^[27]. Another meta-analysis by **Parasa et al., 2020** reported that diarrhea occurred in 4.3–12.2% and nausea, or vomiting occurred in 2.6–8.0% of their included 4805 patients^[28]. A study from the USA showed that GI symptoms were present in 61.3% of their patients (the most common was the loss of appetite (34.8%) followed by diarrhea (33.7%), and nausea (26.4%))^[29]

Minor comments:

Definition of lymphopenia or leukopenia is missing in the method

lymphopenia (defined as an absolute lymphocyte count $<1.0 \times 10^3/L$)^[12] or leukopenia^[12] (defined as a total leucocyte count $<4.0 \times 10^3/L$)

12. Frater JL, Zini G, d'Onofrio G, Rogers HJ. COVID-19 and the clinical hematology laboratory. *Int J Lab Hematol.* 2020 Jun;42 Suppl 1:11-18. doi: 10.1111/ijlh.13229. PMID: 32311826; PMCID: PMC7264622.

added in the methods section page 8 and the references

8. Mean, median, and range of age of included patients should be reported in the result section

The mean age was 45.04 ± 17.61 years; the median age (Interquartile range (IQR)) was 45.00 (30.00: 60.00) years as added in the results section page 9

9. Reference missing for the angiotensin converting enzyme-2 (ACE-2) receptor on cholangiocytes and on gastric and duodenal glandular cells in the introduction;

We apologize for this. The reference was added

Definition of liver injury in the method; statistical analysis.

The reference was added

Science editor:

- (1) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor**

Thanks sir. A PowerPoint file of the figure was added

- (2) The “Article Highlights” section is missing. Please add the “Article Highlights” section at the end of the main text.**

Thanks again, Article Highlights section was added after the conclusion of the article