

Peer Review File

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Reviewer A

Discussion section is well written. Overall presentation is good

Response:

We thank the reviewer for his kind comment.

Reviewer B

Dear authors, thank you so much for submitting the manuscript. The article provides rare cases of COVID-19 infection followed by hypocalcemia and SMA syndrome. However, there are some critical issues as below.

Major comments

1. It would be better to modify Title. In the case presentation, there is no evidence to support authors' hypothesis - hypocalcaemia precipitated SMA syndrome -. As authors mentioned in Line 109, weight gain by nutrition therapy should improve SMA syndrome. It is necessary to show the improvement of SMA syndrome right after the correction of calcium before weight gain by figure or text, based on patient's symptom or CT scan etc. If there is no evidence, title should be changed, ie. Rare case of COVID-19 infection with severe hypocalcemia and SMA syndrome etc..

Response:

We agree with the reviewer's comment and has changed the title of the manuscript to "COVID-19 infection with severe hypocalcemia and Superior Mesenteric Artery Syndrome – A Case Report" (Lines 1-2)

2. Abstract conclusions: Please mention SMA syndrome if you think SMA syndrome was related with COVID-19.

Response:

We think that the SMA syndrome was a different entity and may not be related to the COVID-19 infection. Hence, no changes were made to the abstract.

3. Line72-74: Did you perform chest CT as well as abdominal? How did you diagnosed pneumonia? Please clarify it.

Response:

He was diagnosed as COVID-19 Category 2 (symptomatic but no pneumonia) as his

chest X-ray showed no obvious lung changes. Hence, we have replaced the word “pneumonia” with infection.

Changes made in lines 72-73 “His chest X-ray was normal whilst an urgent contrasted CT scan of the abdomen suggested SMA syndrome.”

4. Line77: Did the “40 days hospital stay” have any tests to assess SMA syndrome and pneumonia? CT or Xp etc. Please show timeline by figure or so.

Response:

Due to cost constraints, only one CT scan (labeled as Figure 1A) was performed throughout his 40 days hospital stay as patient showed clinical improvement. Another CT scan was performed 80 days post discharge (labeled as Figure 1B). As the initial X-ray revealed no pneumonic changes, no further chest X-Rays were repeated.

5. Line80 and Figure 1B: I cannot see any improvements in Fig1B. Please clarify it and describe details, ie. SMA-Ao angle and distance or dilatation of duodenum etc..

Response:

We have replaced it with a new statement “During his post-discharge review (day 80 from discharge), a computed tomography scan of his abdomen was repeated, showing improvement in his SMA syndrome. (Figures 3A & 3B)” (Line 82-84)

Figure 1B has been replaced by Figures 3A and 3B in the figures file, both are sagittal views of the repeated CECT Abdomen showing the new aortomesenteric angle and distance.

6. Figure 1 and legend: What does the blue line means? Please clarify it in the legend.

Response:

We have replaced with new figures. Figures 1A and 1B are sagittal views of initial CT abdomen showing the aortomesenteric angle and distance. Figure 2 is the axial view of the initial CT abdomen to further delineate the features of SMA. Figures 3A and 3B are sagittal views of post-discharge CT abdomen to show the improvement in the aortomesenteric angle and distance.

7. Figure 1 and legend: For the diagnosis of SMA syndrome, it is necessary to show expanded duodenum by horizontal CT etc.

Response:

We have added an axial CT image showing the features of SMA syndrome as Figure 2.

Minor comments

1. Line65: Please add height and BMI.

Response:

We have added his height and calculated his BMI, as well as compared both height and weight according to the boys growth chart. (Lines 64-67)

2. Line72: CT ==> computed tomography (CT)

3. Line133: computed tomography ==> CT

Response:

Changes made for comments 2 and 3.

Reviewer C

Many thanks for the opportunity to review this manuscript that I find very interesting, original and well organized. There are only some typo errors that should be edited.

Response:

We thank the reviewer for his kind comment.