

Peer Review File

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Reviewer A

Comment 1: It's not clear to me that COVID-19 had much to do with his esophageal perforation. He was drinking alcohol daily (and venturing to the store to buy his alcohol which may have been his exposure to SARS-CoV-2), stopped drinking, developed nausea and vomiting with lab evidence of possible ETOH ketoacidosis (based on provided labs), and then had esophageal perforation. His perforation sounds similar to the 2017 presentation.

Overall, the case details are described well and are easy to follow, and from a management of esophageal perforation, it makes for an interesting case. But again, it's not clear to me that COVID had any impact on his case other than requiring special isolation during his care. I am not sure we would anticipate significant radiographic findings or bronchoscopic evidence of excess mucus production from an asymptomatic COVID19 infection. Consider rephrasing to talk about how you addressed esophageal perforation in a COVID19 positive patient rather than implying the two are linked from the get go.

Reply 1: Thank you for taking the time to review this case report. Reviewer A has made some excellent observations about the overall message of the manuscript. Our patient presented to us during the beginning stages of the COVID pandemic. At the time, we still knew little about the course of the disease and its manifestations. We agree that his perforation was most likely due to his history of perforation and prior alcohol use, however given the little we still knew about the disease, COVID-19 infection could have contributed to his presentation especially since heavy coughing can increase intrathoracic pressure and pneumomediastinum has been documented with COVID-19 infection. In addition to describing the first reported case of spontaneous esophageal perforation in a patient with COVID-19, we wanted to highlight the management of esophageal perforation in a patient with COVID-19. We will rephrase areas of the manuscript that imply COVID may have been a cause of the esophageal perforation. We appreciate the candor and thoughtful comments.

Changes in the text:

Page 2 Abstract: Removed atypical presentation as this gives the impression that COVID was the cause of his perforation.

Page 6 Discussion: Added "who concurrently presented with" to further delineate the two separate entities of COVID 19 and esophageal perforation.

Page 7 Discussion: Rephrased the final paragraph to clarify if any association exists rather than implying an association does exist.

Reviewer B

Comment 1: I would opt to remove "all empires fall, you just have to know where to push" as it does not add anything to describing the contents of the manuscript.

Reply 1: We appreciate the time and effort put forth by Reviewer B regarding our manuscript. I was a little confused with this comment as this phrase is not present in any part of the paper or title.

Changes in the text: None at this time

Comment 2: Introduction: You may consider adding the occurrence of thoracic empyema in covid-19 patients as pulmonary manifestation.

Reply 2: This is an excellent suggestion and has been added onto the introduction.

Changes in the text: Page 3 Introduction, added thoracic empyema as a manifestation of COVID 19

Comment 3: Was the esophageal stent still in situ? In other words, could the current presentation be caused by a symptomatic stent displacement? Please expand on the period between 2017 and the current presentation in more detail.

Reply 3: At the time of his most recent esophageal perforation, he did not have an esophageal stent in place. We were able to confirm that he had a fully covered esophageal stent placed in 2017 which was removed a few weeks after placement and documented healing by esophagram. We also verified that he had a gastrojejunostomy tube placed at the time of the stent.

Changes in the text: Page 3 case presentation, Removal of the stent was added.

Comment 4: Vitals: “pulse 65, blood pressure 93/56” please add units.

- “A CT scan with contrast” despite it may be obvious, please add the type of contrast for clarity purposes, e.g., oral contrast.

Reply 4: We apologize for this oversight and this will be corrected.

Changes in the text: Page 4 case presentation, units were added. Page 4 case presentation, IV and oral contrast were added.

Comment 5: Please expand on the indication for the bilateral decortication. The presence of a stage 3 empyema with an organizing pleural peel of trapped lung suggests an earlier onset than 2 days.

Reply 5: Thank you for this comment. There was not a pleural rind present-gastric content was drained bilaterally and the mediastinum was opened and drained widely bilaterally.

Change in the text: Page 5 case presentation We changed the procedure in the text to reflect more accurately our procedure “evacuation of gastric contents and mediastinal drainage”.

Comment 6: Could the presence an esophageal perforation and COVID-19 be a fortuitous concurrence of circumstances? Please elaborate. The perforation could potentially also occur from stent erosion or recurrent perforation due to vomiting? For example, were any signs of erosion, or signs of repetitive vomiting seen using endoscopy? The absence of such signs could strengthen the plausibility of the link between covid19 and the esophageal perforation.

Reply 6: We appreciate your time in reviewing this case report and appreciate your

comment. We are still uncertain whether it was coincidental or if there is an association between the COVID-19 infection and the esophageal perforation. The patient does have significant risk factors for a perforation such as prior history of an esophageal perforation and alcohol use; however, given that COVID-19 is a novel infection with still much to learn, we do not want to discount any associations. Our goal was to report not only the first known patient with spontaneous esophageal perforation and simultaneous COVID-19 infection, but also the challenges of managing both conditions concurrently. To expand upon your second point, we were unable to tell endoscopically if the perforation occurred as result of vomiting, but suspect it contributed in addition to increased intrathoracic pressure from coughing as a result of COVID-19 infection.

Changes in the text: Page 7 discussion: The final paragraph has been rephrased to include a summarizing statement regarding patient's prior history of perforation with the acknowledgement that this may have been a contributing factor to his current perforation.

Page 3-4 case presentation, A line was added describing lack of previous stent during current episode and removal of stent a few weeks after first perforation. We also added a line describing lack of foreign bodies seen on imaging, endoscopy or thoracoscopy as well as no history of foreign body ingestion or onset of symptoms after a specific meal.