

Acute Respiratory Failure in a Non-traumatic Brain Injury Patient Secondary to COVID19 infection: A Case Report

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INTRODUCTION

 A negative result for COVID-19 testing should not preclude further evaluation in patients with significant comorbidities.

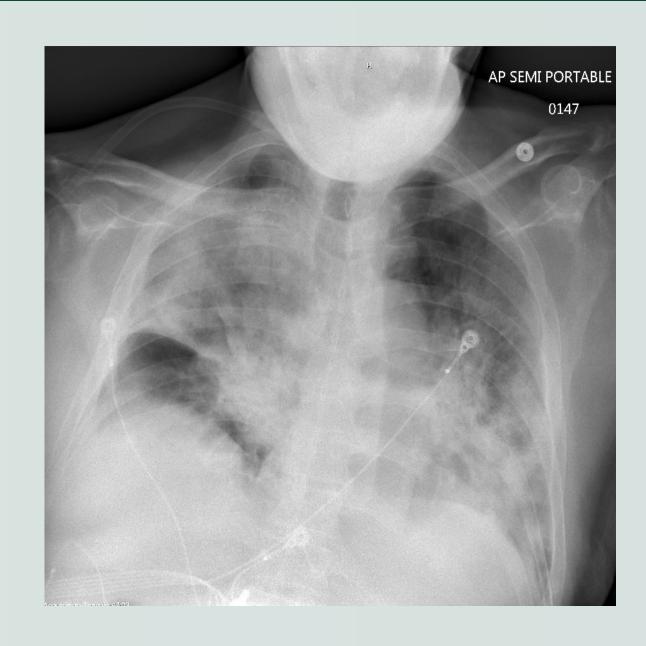
CASE PRESENTATION

- A 70-year-old male suffered from acute respiratory failure with two prior negative COVID-19 tests.
- Patient developed subsequent encephalopathy and unsteady gait secondary to prolonged intubation. He was treated for a lobar pneumonia, extubated and found to have an incidental pulmonary embolism.
- Patient was transferred to acute inpatient rehabilitation for encephalopathy and critical illness myopathy.

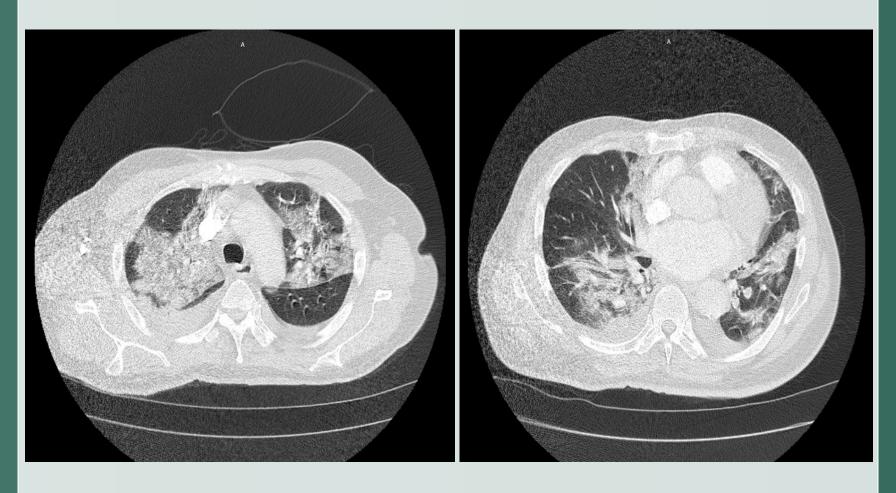
ADVERSE EVENTS

- Inpatient rehabilitation (IPR) course was complicated by significant hypoarousal, pseudogout and associated musculoskeletal pain (which was treated conservatively), atrial fibrillation, hypertension, and acute kidney injury.
- Patient was on room air with oxygen saturations of 95-99% and then developed sudden dyspnea and hypoxia with an oxygen saturation of 86% requiring 4L nasal cannula. Patient was transferred to emergency department where imaging revealed the pulmonary embolism and ground glass opacities consistent with COVID-19 despite prior negative testing that was later confirmed by PCR testing.

IMAGES



Chest X-ray on day of Transfer from IPR



CT Chest on day of Transfer from IPR

RESULTS

- CT Chest revealed a pulmonary embolus at the left main pulmonary artery bifurcation into the lobar branches.
- Groundglass and confluent opacities within both lungs concerning for pneumonia
- PCR Testing positive for Covid 19

DISCUSSION

- This is the first reported case of a patient presenting to IPR for non-TBI with a complication of acute respiratory failure secondary to a COVID19 infection.
- The patient was challenging to treat due to multiple comorbidities and extensive respiratory complications.
- Though the patient had tested negative on two separate occasions for COVID19, the clinical and radiographic findings were considered characteristic of COVID-19 respiratory infections.

CONCLUSIONS

- As physiatrists, we must identify the symptoms and have a high index of suspicion when evaluating patients for COVID-19.
- We must diagnose patients in an effective and timely manner due to the high morbidity and mortality associated with COVID19.
- The patient eventually required a transfer to the intensive care unit and passed away.

REFERENCES

Detroit Medical Center; Rehabilitation Institute of Michigan; retrieved April 13 2020