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NOT JUST A LUNG DISEASE: A CASE OF RIGHT VENTRICULAR THROMBUS IN A PATIENT WITH COVID-19

Poster Contributions

For exact presentation time, refer to the online ACC.22 Program Planner at <https://www.abstractsonline.com/pp8/#!/10461>

Session Title: Complex Clinical Cases: FIT Flatboard Poster Selections -- Covid

Abstract Category: FIT: Coronavirus Disease (COVID-19)

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Background: In addition to its well-documented pulmonary effects, the 2019 coronavirus disease has been associated with a hypercoagulable state. Resulting thromboemboli may include more rare phenomena such as intracardiac thrombi, and lead to substantial morbidity and mortality in already critically ill patients.

Case: A 79-year-old man with a history of chronic obstructive pulmonary disease, type 2 diabetes mellitus, and stage 3 chronic kidney disease presented for shortness of breath and increasing home oxygen requirements. Initial evaluation was notable for positive COVID-19 NAA, and CT chest with bilateral pulmonary ground glass opacities and no other abnormality. The patient was placed on high-flow nasal cannula and treated with remdesivir, dexamethasone, and prophylactic subcutaneous heparin. He experienced increasing oxygen requirements, and was intubated and mechanically ventilated. Several days later, the patient developed rapidly worsening hypotension requiring multiple pressors. Bedside ultrasound revealed a right ventricular thrombus, and tissue plasminogen activator was administered via a central line. The patient subsequently developed a lower gastrointestinal bleed that stabilized after transfusion, though his hypotension did not improve and he subsequently developed renal failure. Pressor and ventilator support continued to escalate, and the patient's family requested that the team withdraw aggressive care in line with his previously stated wishes. He passed away shortly after.

Decision-making: There is yet no overarching guideline for management of right ventricular thrombus, though options include thrombolysis, anticoagulation, and surgery. Thrombolysis was chosen in this case, due to the patient's hemodynamic instability precluding surgical intervention and indicating more urgent therapy than anticoagulation.

Conclusion: The patient in this case developed a new right ventricular thrombus and likely resultant obstructive shock in the setting of a long period of critical illness secondary to COVID-19. Critical care teams should consider a cardiogenic component in COVID-19 patients who develop worsening shock.