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A RARE CASE OF CONSTRICTIVE PERICARDITIS FOLLOWING COVID-19 EXPOSURE AND VACCINATION

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: Post infectious constrictive pericarditis is rare and thought to be secondary to chronic inflammation leading to scarring.

Case: A 67-year-old man with history of atrial fibrillation, cryoablation and left atrial occlusion device presented with complaints of dyspnea three months after his wife tested positive for COVID-19 in April 2020. Although he tested negative, he complained of a persistent cough. His exam was positive for elevated JVP, right ventricular heave and lower extremity swelling. ECG showed atrial fibrillation and transthoracic echocardiography (TTE) showed moderate tricuspid regurgitation and right ventricle dysfunction. Computed tomography of the chest was negative for pulmonary embolus. In December 2020, cardiac magnetic resonance imaging (CMR) showed normal biventricular function with no infiltrative or pericardial disease. Thoracentesis was negative for TB and malignancy but did show lymphocytic predominance. The patient received two doses of the Pfizer COVID-19 vaccine in March 2021 and his symptoms progressively worsened. Repeat TTE in July 2021 showed rapid early mitral valve filling and a septal bounce. Cardiac catheterization showed nonobstructive disease, deep “y” descents and discordance between left and right sided pressures. Repeat CMR showed a thickened pericardium.

Decision-making: The patient was felt in retrospect to have had COVID-19 myocarditis even though his testing had been negative. It was concluded that the mRNA vaccine tipped the already inflamed pericardium over to a constrictive physiology. He underwent pericardiectomy on a beating-heart, off-pump, and his recovery was uneventful. Tissue exam confirmed a thickened pericardium with acute on chronic pericarditis. The CDC was contacted. On follow up patient symptoms had resolved.

Conclusion: Constrictive pericarditis, although rare, can complicate viral pericarditis and should be considered in patients with COVID-19 exposure and/or after mRNA vaccine.