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SYMPTOMATIC NON-SUSTAINED VENTRICULAR TACHYCARDIA ASSOCIATED WITH RESOLVED MILD 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: Arrhythmias have been associated with Coronavirus disease (COVID-19) caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus. Most arrhythmias especially ventricular, including non-sustained ventricular tachycardia (NSVT), are associated with severe disease requiring oxygenation and often mechanical ventilation. Isolated NSVT associated with mild COVID-19 has not been reported in the literature.

Case: A 39 year old man with history of sleep apnea, and obesity presented with intermittent palpitations over one month. Episodes lasted few seconds, resolved spontaneously, were not related to activity. No associated anginal complaints reported. However frequency and intensity was increasing over time with most severe presentation associated with fatigue and presyncope. He had COVID-19 infection one month prior that was treated outpatient with steroids without requiring oxygen support and he recovered without residual symptoms. His vitals were stable on presentation. Electrolytes, electrocardiogram and chest CT were unremarkable. Multiple runs of non-sustained ventricular tachycardia were seen on telemetry associated with palpitations and subsequently recorded on 12-lead ECG; he remained hemodynamically stable during episodes. Metoprolol and amiodarone were initiated. Echocardiogram showed ejection fraction left ventricular 67% and no valvular pathology. Minimal plaque in LAD was seen on chest CT angiography. Cardiac MRI showed mild biventricular dilation with normal wall thickness and no evidence of myocarditis, hypertrophic cardiomyopathy or arrhythmogenic right ventricular dysplasia. NSVT frequency decreased and symptoms resolved. He was discharged home with a 30-day event monitor.

Decision-making: Given that extensive work-up was negative, the recent COVID-19 infection was thought to be the only potential cause of his symptomatic NSVT.

Conclusion: Symptomatic NSVT can be a late sequela of mild COVID-19 disease and requires high index of suspicion in patients with clinical picture suggestive of arrhythmia even weeks after resolution of disease.