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Complex Clinical Cases

COVID PALPITATIONS: AN INTERESTING CASE OF LEFT POSTERIOR FASCICULAR VENTRICULAR TACHYCARDIA

Poster Contributions

Monday, May 17, 2021, 10:45 a.m.-11:30 a.m.

Session Title: Complex Clinical Cases: FIT Covid-19 3

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

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Background: Left posterior fascicular ventricular tachycardia (LPF-VT) is often misdiagnosed as supraventricular tachycardia (SVT) with aberrancy. Correct identification of LPF-VT is particularly important as it has a high treatment success rate with administration of verapamil.

Case: A 46 year old male without significant past medical history was admitted with palpitations and shortness of breath. Workup revealed positive SARS-CoV-2 infection and the electrocardiogram (ECG) shown in Image 1. A diagnosis of LPF-VT was made and the patient was treated with verapamil resulting in the complete resolution of arrhythmia and symptoms. The patient was monitored on telemetry for an additional 24 hours without further recurrence.

Decision-making: The differentiation between LPF-VT and SVT with aberrancy requires careful attention to ECG characteristics. Apart from atrioventricular dissociation, LPF-VT can be identified by the ECG findings of QRS complex $<140\text{ms}$, V6 R/S ratio <1 , atypical V1 morphology, and positive QRS complex in aVR. SVT with aberrancy typically has a QRS $>140\text{ms}$, V6 R/S ratio >1 , typical V1 morphology, and negative QRS complex in aVR. The majority of patients with LPF-VT respond to verapamil, but catheter ablation can be considered in refractory cases and has a 95% success rate.

Conclusion: This case highlights the utility of certain ECG characteristics to differentiate LPF-VT from SVT with aberrancy. Once diagnosed, LPF-VT can be easily treated with verapamil or catheter ablation.

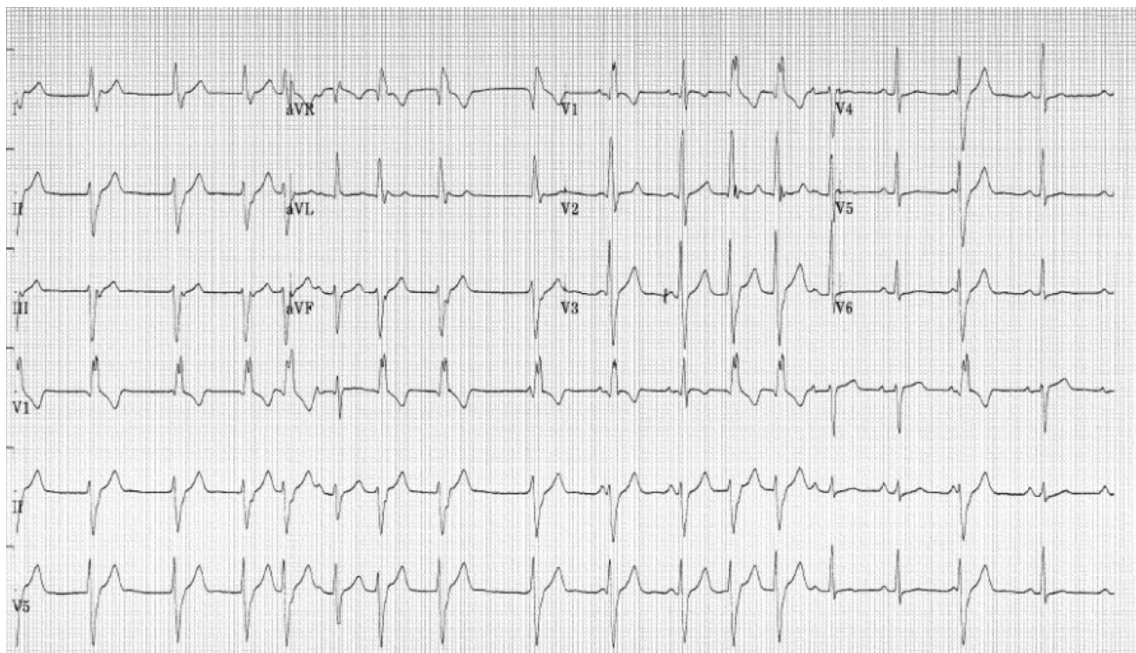


Image 1: LPF-VT ECG demonstrating QRS $<140\text{ms}$, V6 R/S ratio <1 , and positive QRS complex in aVR.