**FIT Clinical Decision Making**

**IDIOPATHIC VT: DON’T FORGET CARDIAC SARCOID!**

Poster Contributions  
Poster Hall B1  
Monday, March 16, 2015, 9:45 a.m.-10:30 a.m.

---

Session Title: FIT Clinical Decision Making: Arrhythmias and Pericardial Disease  
Abstract Category: Arrhythmias and Clinical EP  
Presentation Number: 1248-154

Authors: Hussein Othman, John Kalasky, Howard Rosman, Ali Shakir, St. John Hospital and Medical Center, Detroit, MI, USA, Henry Ford Macomb Hospital, Charter Township of Clinton, MI, USA

**Background:** Idiopathic ventricular tachycardia (VT) is classically associated with normal left ventricle (LV) function and low risk of sudden cardiac death (SCD). However, patients with cardiac sarcoidosis may have normal LV function but still be at increased risk of SCD. We describe a case of cardiac sarcoidosis, with an initial presentation of VT with normal LV function that illustrates the challenges in the diagnosis of cardiac sarcoidosis.

**Case:** A 39 year old male presented with 2-day history of palpitations associated with near-syncope. His medical history was significant for asthma. Physical exam was unremarkable. Initial electrocardiogram (ECG) showed wide complex tachycardia right bundle branch morphology and superior axis suggestive of fascicular VT. After attempts with medications to terminate the arrhythmia, the patient converted spontaneously into normal sinus rhythm with 1st degree AV block. Initial echocardiogram showed normal LV function.

**Decision Making:** Despite beta-blocker therapy, the patient continued to have episodes of VT and radiofrequency ablation was successfully performed. Postoperative echocardiogram was performed to rule out pericardial effusion. An LV apical aneurysm was seen with contrast. This, in retrospect, was evident on initial echocardiogram. Cardiac MRI was recommended to further delineate the LV apical aneurysm. Cardiac Magnetic Resonance Imaging (MRI) showed dyskinesis, thinning and dilation of LV apex with no thrombus. There were also patchy areas of hyperintense signal on T2-weighted images throughout the myocardium, corresponding with areas of myocardial delayed enhancement. Mediastinal lymphadenopathy was noted also. These findings were suggestive of sarcoidosis which was confirmed by lymph node biopsy. Subsequently, implantable cardioverter defibrillator was placed for prevention of SCD.

**Conclusion:** Sarcoidosis is known as a “masquerader” and should be in the differential with all patients presenting with idiopathic VT. Cardiac MRI may be warranted in patients with idiopathic VT to rule out other life-threatening etiologies such as cardiac sarcoidosis.