CARDIAC SARCOIDOSIS PRESENTING AS SICK SINUS SYNDROME AND RECURRENT VENTRICULAR TACHYCARDIA

Poster Contributions
Hall C
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Authors: Khue Ton, Steven Schulman, Joao Lima, Harikrishna Tandri, Johns Hopkins Hospital, Baltimore, MD, USA

Background: Isolated cardiac sarcoidosis is often under-diagnosed. It may present as recurrent arrhythmias, heart failure or conduction block. High dose corticosteroids, when instituted early, can halt myocardial damage.

Case: A 69-year-old Caucasian man presented with six months of recurrent ventricular tachycardia (VT). His medical history included hypertension and dyslipidemia. One year ago he received a dual chamber pacemaker for sick-sinus syndrome. He had undergone two endocardial and one epicardial ablations, all unsuccessful. Physical examination was unremarkable. Electrocardiogram showed a regular, monomorphic, wide complex tachycardia at 175 beats per minute, right bundle branch block morphology and superior axis. He maintained a low normal blood pressure but became increasingly symptomatic with palpitation, chest pressure and dyspnea, requiring external defibrillations and pace terminations despite high doses of anti-arrhythmics.

Decision-making: Previous coronary angiography demonstrated no obstructive disease. Echocardiography showed a normal left ventricular systolic function and antero-apical hypokinesis. A cardiac magnetic resonance imaging (cMRI), performed to assess scar burden, revealed delayed enhancements in the anterior and inferoseptal walls. Electroanatomic mapping yielded patchy scar patterns as shown on the cMRI. VT ablation was unsuccessful due to scar location deep in the mid-myocardium. The patient's sick sinus syndrome, recurrent VT, and patchy scars raised the suspicion of cardiac sarcoidosis. He underwent a cardiac sestamibi-Tc99m rest-only SPECT CT and a whole-body F18-FDG PET that showed FDG uptake and perfusion defects in the anterior and inferior walls, consistent with active inflammation. Multinucleated giant cells were found in a biopsy of an FDG-avid mediastinal lymph node. The patient started high dose prednisone and received an implantable cardioverter-defibrillator prior to discharge, with remarkable resolution of VT at three-month follow-up.

Conclusion: A high index of suspicion is needed in the diagnosis of cardiac sarcoidosis, especially in the presence of conduction disease, recurrent VT and a normal LV function.