Unusual reversible etiology of ventricular tachycardia

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Introduction: We report a case of VT due to myocardial tuberculosis with structurally normal heart in echocardiography and without any systemic symptom of tuberculosis. We also documented regression of pathology with anti-tubercular therapy.

Methods: A 25-year-old young male presented without any background history of fever or constitutional symptoms, presented with recurrent symptomatic monomorphic Ventricular tachycardia of right bundle branch block morphology(Figure 1A). Baseline ECG documented T wave inversion in precordial leads (Figure 1B). Echocardiography was normal (Figure 1C). FDG-PET study showed perfusion defect with good FDG uptake in apex and apico-anterior segments of left ventricle and multiple FDG avid discrete and coalescent mediastinal and abdominal lymph nodes (Figure 1D). Routine blood investigations were normal except ESR of 30. Tuberculin skin test showed induration of 30 x 25 mm after 48 hours. Endobronchial Ultrasound Guided Transbronchial Needle Aspiration smear from mediastinal node showed well-formed epithelioid cell granuloma(arrow) and areas of necrosis(stars) (Figure 1E).

Result: Patient was treated with anti-tubercular agent (3 months of 4 drugs and 6 months of 2 drugs). Repeat FDG-PET after 3 months of treatment showed near complete resolution of abdominal and thoracic lymphadenopathy (Figure 1F). On Follow-up after initiation of therapy and for one year after completion of therapy patient was asymptomatic. 24 hours Holter at 6 months and 1 year after therapy showed no sustained or non-sustained ventricular arrhythmia.

Conclusion: Life threatening ventricular arrhythmia due to tuberculosis of heart can be completely cured with anti-tubercular therapy.