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## Arrythmias, Pacing and Electrophysiology

## The study of spectrum of arrythmias and imaging findings in granulomatous cardiomyopathy



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Introduction: This report characterizes a syndrome of granulomatous infiltration presenting as unexplained ventricular arrhythmias with adenopathy anywhere in body. Patients without obstructive coronary artery disease with significant lymph nodes were evaluated for tuberculosis and sarcoidosis. The aim of our study is to identify the spectrum of clinical manifestations and the various imaging features on different imaging modalities in different types of granulomatous cardiomyopathies and their response to treatment.

Methods: It is a retrospective as well as prospective observational study of all patients clinically diagnosed as granulomatous cardiomyopathy and subsequently confirmed by imaging and standard laboratory diagnostic test to have granuloma or granulomatous disease elsewhere in body. Patients having ischemic heart disease were excluded.

Results: A total of 9 patients were included with mean age of presentation 47 years. Mediastinal adenopathy with mid-myocardial scar and/or focal myocardial inflammation was observed in 7 patients. None of the patients had symptoms of extracardiac disease. Evidence of tuberculosis was present in 44.4%. The median follow-up was 6 months. 8 patients had mediastinal lymphadenopathy, one had axillary and one had additional extra mediastinal lymphadenopathy.

55.5% were female, 88.8% (8 of 9 patients) had ventricular tachycardia and 11.2% had complete heart block. VT recurred despite initial treatment in 87%. Addition of disease-specific therapy abolished further recurrences in 71% of them.

Conclusion: Patients with granulomatous cardiomyopathy usually presents as unexplained ventricular arrhythmias or occasionally atrioventricular nodal block with preserved or compromised ventricular function. It is a syndrome of arrhythmogenic myocarditis with granulomatous lymphadenopathy due to myocardial tuberculosis or cardiac sarcoidosis. This entity is optimally managed with a combination of disease-specific therapy and antiarrhythmic measures.

## Is atrial fibrillation an independent predictor of prosthetic heart valve thrombosis



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Introduction: Prosthetic heart valve thrombosis (PHVT) is an uncommon but serious complication of valve replacement. As compared to developed countries where the reported incidence of PHVT ranges from 0.3% to 3% per year, Indian studies have quoted the incidence to be as high as 6% in the initial 6 months of valve implantation. Previous studies have demonstrated variety of risk factors [compliance to oral anticoagulation (OAC), depressed

Baseline Features of patients with unexplained arrhythmias due to Sarcoidosis/Tuberculosis										
Patient serial No.	Age (years)	Sex	LVEF (%)	Arrhythmia presentation	Site of adenopathy on imaging	Biopsy diagnosis	Tuberculin skin test	Diagnosis	Disease specific treatment	Antiarrhythmic treatment
1	52	F	С	VT	M	ТВ	P	TB	ATT	AAD
2	35	M	С	VT	M	S	N	CS	PDN/Mtx	AAD + ICD
3	52	F	С	VT	M	GIUE	P	CS/TB	ATT + PDN/Mtx	AAD
4	42	F	С	VT	M	S	N	CS	PDN/Mtx	AAD + ICD
5	53	M	С	VT	M	S	N	CS	PDN	AAD + ICD
6	39	M	No	CHB	M	s	N	CS	TPI + PDN	_
7	41	F	С	VT	M	GIUE	N	CS/TB	ATT + PDN	AAD + ICD
8	61	F	С	VT	M, C	GIUE	N	CS	PDN	AAD + ICD
9	51	M	С	VT	Axillary	TB	P	ТВ	ATT	AAD

M-male, F-female, No-normal, C-compromised, VT-ventricular tachycardia, CHB-complete heart block, S-sarcoidosis, TB-tuberculosis, GIUE-granulomatous inflammation of undetermine etiology, M-mediastinal, C-cervical, P-positive, N-negative, ATT-antituberculous therapy, CS-cardiac sarcoidosis, PDN-prednisolone, Mtx-methotrexate, AAD-antiarrhythmic drug, ICD-implantable cardioverter defibrillator.