

CARDIAC SARCOIDOSIS: THE OUTCOMES OF PATIENTS UNDERGOING CARDIAC TRANSPLANT

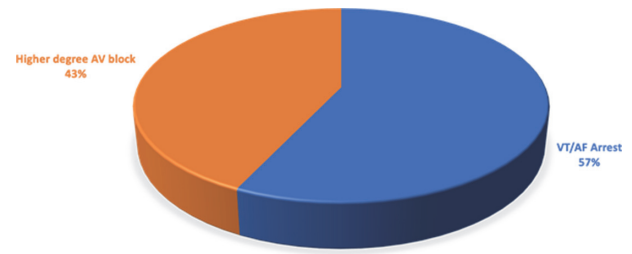
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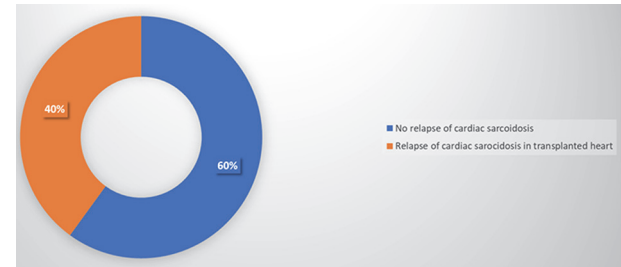
Background Sarcoidosis is a multi-organ granulomatosis disease. The diagnosis and management of cardiac sarcoidosis (CS) can be challenging and requires an integrated multidisciplinary approach including multi-modality imaging, electrophysiology, devices, advanced heart failure, transplantation and specialist cardiac and pulmonary sarcoidosis teams. Purpose We aim to assess the presentation, diagnostic approaches and outcomes of patients with CS undergoing cardiac transplantation.

Methods Retrospective observational study. The data of patients undergoing cardiac transplant at Harefield hospital between 1st June 2010 and 30th June 2020 was analysed. Patients with a diagnosis of CS undergoing transplantation were identified from this data.

Results 243 patients underwent cardiac transplant at Harefield hospital between 1st June 2010 and 30th June 2020. 7/243 (3%) patients had an underlying diagnosis of CS. 7/7 (100%) of these were male. CS patients had a higher mean age of presentation as compared to those with without sarcoidosis undergoing transplantation (41+-15 Vs 50+-9.) 5/7



Abstract 128 Figure 1 Initial presentation of patients with Cardiac Sarcoidosis



Abstract 128 Figure 2 The outcomes among surviving Cardiac Sarcoidosis patients post-Transplant

Abstract 128 Table 1 Demographics of patients undergoing Cardiac Transplant. (n = 243)

	Non-Cardiac Sarcoid	Cardiac sarcoid
No of participants	236 (97%)	7 (3%)
Age	41 +- 15	50 +- 9
Gender		
Male	165 (70%)	7 (100%)
Female	78 (30%)	0 (0%)
Current Status		
Alive	167 (70%)	5 (71%)
Dead	69 (30%)	2 (29%)
Diagnostic tests (needed to confirm diagnosis)		6 (86%)
CMR/FDG-PET scans		1 (14%)
Endomyocardial biopsy		7 (100%)
Sarcoidosis on explanted heart histology		
Sarcoidosis types		
Cardio-pulmonary sarcoidosis		3 (43%)
Multisystem sarcoidosis		1 (14%)
Isolated cardiac sarcoidosis		3 (43%)
Implanted cardiac device types (pre-transplant)		
ICD/ CRT-D		5 (71%)
CRT-P		1 (14%)
None		1 (14%)
Post-Transplant immunosuppressive regimen		
Tacrolimus/Sirolimus		5/5
Mycophenolate Mofetil (MMF)		(100%)
Prednisolone (both patients with CS relapse in transplanted heart were on maintenance dose 3-5mg OD)		5/5
		(100%)
		3/5 (60%)

Continuous variables are presented as numbers and percentages and categorical variables are presented as mean +- standard deviation

(71%) patients with cardiac sarcoidosis had CRT-D with 1/7 (14%) had CRT-P implantation pre-transplantation. 6/7 (86%) patients underwent both CMR and FDG-PET scans to confirm the diagnosis of cardiac sarcoidosis whereas 1/7 (14%) needing endomyocardial biopsy to confirm the diagnosis prior to undergoing cardiac transplantation. 3/7 (43%) patients had isolated cardiac sarcoidosis while 4/7 (57%) had cardio-pulmonary sarcoidosis (table-1). 4/7 (57%) patients had an initial presentation with ventricular tachycardia whereas 3/7 (43%) presented with a higher degree AV block (figure-1). The diagnosis of cardiac sarcoidosis was confirmed on the histopathological examination of explanted heart in 7/7 patients (100%). 2/7 patients (28%) died with post-transplant complications within the first 2 weeks whereas 5/7 (72%) remain alive; mean post-transplant survival 6 +- 2.5 years thus far. Rather interestingly a relapse of sarcoidosis was noted in the transplanted heart among 2/5 (40%) of surviving post-transplant patients (figure-2) despite of being on the post-transplant immunosuppressive regimen (table-1).

Conclusion A higher incidence of CS relapse (40%) was noted in transplanted heart of surviving patients despite of being on post cardiac transplant immunosuppressive regimen including Tacrolimus/Sirolimus, MMF and maintenance dose oral Prednisolone (3-5mg).

Conflict of Interest No conflict of interest

THE ROLE OF CARDIOPULMONARY EXERCISE TESTING IN PATIENTS UNDERGOING HEART TRANSPLANTATION

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