PVC. Follow-up included 12 lead electrocardiographic, ambulatory monitoring, and symptoms. **Results:** Of 239 patients, 75 (31%) patients had failed a prior ablation procedure and they more often had LVOT PVCs (Table). Despite failing prior ablation, repeat standard ablation was acutely successful in 59%, and 75% of these patients had long-term success. Standard ablation acute success rate was lower and long-term recurrence rate was higher compared to patients without prior ablation (59% vs 95%; *P* < 0.001, 29% vs 17%; *P* < 0.05, respectively) (Figure 1). Of the 31 repeat standard procedures that again failed, advanced techniques were performed in 23 (16 Needle, 5 epicardial and 2 simultaneous ablation) and were acutely successful in 16 (70%) with long-term success in 14 (45%). Overall long-term success for patients with prior failed standard ablation was 71%. **Conclusion:** Although success is lower for patients with prior failed ablation, repeat ablation appears reasonable for many as repeat ablation with normal or half normal saline irrigation is successful in 59% and use of advanced techniques increased success to 71% in this group.

**Poster Session I S139**

**PO-623-03**

**INTRAMURAL EXTENSION OF THE POST-INFARCTION SUBSTRATE IN PATIENTS UNDERGOING CATHETER ABLATION OF VENTRICULAR TACHYCARDIA: PREVALENCE AND PROGNOSTIC IMPLICATIONS**

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**Background:** Intramural substrate extension (ISE) of the post-infarction subendocardial or transmural scar has been recently documented by cardiac magnetic resonance (CMR) in subsets of patients with ischemic cardiomyopathy (ICM). The prevalence and clinical relevance of ISE in ICM patients undergoing catheter ablation of ventricular tachycardia (VT) is unknown. **Objective:** To investigate the prevalence and prognostic implications of ISE in patients with ICM undergoing catheter ablation of VT. **Methods:** Out of 375 consecutive patients with ICM who underwent catheter ablation of VT between 2015 and 2021, 68 had pre-procedural CMR and were included in this study. ISE was defined as > 5 mm extension of the subendocardial or transmural infarct scar into the LV mid-myocardium and matching the infarct coronary distribution. **Results:** A total of 15 (22%) patients had ISE. There were no significant baseline differences between patients with and without ISE (age: 65 ± 11 vs 67 ± 11, *p* = 0.46; male gender: 93% vs 96%, *p* = 0.53; LVEF: 33 ± 13% vs 29 ± 11%, *p* = 0.24; failed anti-arrhythmic drugs: 1.0 ± 0.93 vs 1.21 ± 0.77, *p* = 0.38). Non-inducibility of any VT at post-procedural programmed stimulation was 50% in patients with ISE and 56% in patients without ISE (*p* = 0.8). After a median follow-up of 15 months patients with ISE had significantly higher rate of VT recurrence compared to patients without ISE (53% vs 15%, log rank *p* = 0.006, **Figure**). At multivariable analysis, after adjustment for age, LVEF, NYHA class, and acute procedural outcomes, ISE remained an independent predictor of VT recurrence (hazard ratio 3.93, 95% confidence interval 1.23 to 12.56, *p* = 0.021). **Conclusion:** In patients with ICM undergoing VT ablation, ISE of the infarct scar is present in 22% of cases and is associated with higher rates of VT recurrence at follow-up.

**PO-623-04**

**EXTENT OF SPATIOTEMPORAL DISPERSION DURING DISPERSION-BASED PERSISTENT ATRIAL FIBRILLATION ABLATION: CORRELATION WITH ACUTE PROCEDURAL OUTCOMES**

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**Background:** Spatiotemporal dispersion has been successfully implemented to target extra-pulmonary veins (PVs) regions during AF ablation. It is unknown, however, whether the extent of atrial dispersion—which may vary from patient to patient—correlates with ablation acute procedural outcomes. **Objective:** We aimed at comparing acute procedural outcomes in clusters of patients with low, medium and high spatial extent of bi-atrial spatiotemporal dispersion. **Methods:** Spatiotemporal dispersion maps built with the VX1 software (Volta Medical) were analyzed in 78 consecutive
persistent and long-standing persistent AF patients admitted for a first ablation procedure. The atrium was segmented into 20 different regions and the dispersion extent was quantified with a coefficient ranging from 0 (no dispersion) to 3 (high dispersion). Then, a region size-normalized coefficient was calculated and converted into a percentage of the overall atrial surface area. Finally, three clusters of patients were defined (Gaussian curve analysis): Low dispersion - level 1 (n=6), Medium dispersion - level 2 (n=54), High dispersion - level 3 (n=18). RF times and acute outcomes including AF termination, sinus rhythm (SR) conversion; termination type i.e., AF direct conversion to SR or transition to atrial tachycardia (AT), were compared between patient clusters.

**Results:** Transition to AT after AF termination was comparable between clusters (67% (4/6 pts) vs. 80% (35/44 pts) vs. 71% (10/14 pts) for level 1, 2 and 3, respectively, \( p > 0.6 \)). AF termination by ablation, however, was more likely to occur in the low-dispersion cluster: 100% (6/6 pts) vs. 81% (44/54 pts) and 78% (14/18 pts) for level 1, 2 and 3, respectively, \( p > 0.2 \). Also, ATs were less likely to terminate in high extent of dispersion patients (100% (4/4 pts) vs. 71% (25/35 pts) vs. 50% (5/10 pts) for level 1, 2 and 3, respectively, \( p > 0.2 \)). Expectedly, the RF time increased with the dispersion extent (total RF time significantly higher for level 3 than for level 2, \( p < 0.05 \)).

**Conclusion:** The spatial extent of spatiotemporal dispersion during dispersion-based AF ablation is positively correlated with RF time. Still, patients with a low, medium or high level of dispersion extent are equally likely to transition from AF to AT.

**PO-623-05**

**TUBERCULO SARCOIDOSIS OF THE HEART: DIAGNOSTIC AND THERAPEUTIC IMPLICATIONS**

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**Background:** Sarcoidosis and Tuberculosis are granulomatous disorders which have similar pathological and clinical features. Sarcoidosis has been postulated to be triggered by mycobacterial tuberculosis (MTB) antigens in a genetically predisposed host. Diagnosing this overlap syndrome has significant therapeutic implications, and needs better characterization.

**Objective:** To study the clinical presentation and outcomes of patients presenting with cardiac sarcoidosis (CS) with latent TB.

**Methods:** Data regarding clinical presentation, FDG PET, and histopathology were extracted from our granulomatous myocarditis (GM) registry database. Patients were divided into three groups: those with cardiac sarcoidosis (Group A), cardiac tuberculosis (Group B), and those with cardiac sarcoidosis and latent tuberculosis (Group C). Latent TB was defined as either positive Tuberculin Skin Test (TST) or positive Polymerase Chain Reaction (TB PCR). Patients were treated with either immunosuppressive (IST) and/or anti-tubercular therapy (ATT) according to our institutional protocols. Clinical response (CR) and imaging response (IR) was assessed after 4-6 months of therapy. CR was defined as absence of recurrence of arrhythmia/heart failure. IR was defined as improvement in LVEF > 10% by echocardiography and/or decrease in myocardial uptake on FDG PET.

**Results:** Of the 190 patients with GM, there were 92, 18 and 80 in Groups A, B, and C, respectively. Among the 80 patients in Group C (mean age 41.0±12.3; males 60.7%), ventricular arrhythmias were the most common clinical presentation (67.5%). In these patients, a diagnosis of CS was confirmed using either a mediastinal lymph node (95%) or endomyocardial (5%) biopsy. Histology revealed granulomas with foci of necrosis in 52.5% of cases. The spectrum of latent TB diagnosis is shown (Fig 1). After a combination of IST and ATT therapy, CR and IR were present in 70.3% and 80.4%, respectively (Fig 2).

**Conclusion:** In an endemic area for TB, a significant proportion of patients with CS also have latent TB. Identification of this overlap syndrome (Tuberculo-Sarcoid spectrum) has therapeutic implications on clinical response, underscoring a possible pathogenic role of TB in a subset of patients with CS.

![Figure 1. Inclusion Criteria and Spectrum of latent TB in study Population](image-url)