Methods: Patients enrolled in the RAFT trial from 2003 to 2009 were included. The success of the initial ATP attempt at terminating monomorphic VT and incidence of ICD shock dependent on location of ATP delivery (Bi-V vs RV) and type of cardiomyopathy (ischemic vs non-ischemic) was assessed.

Results: 12,311 VT episodes from 1,798 patients treated with ATP were included. The success of the initial ATP at terminating VT was 60.8% (1160/1909) for Bi-V ATP and 69.4% (4506/6489) for RV only ATP (p<0.001). An ICD shock was required following an unsuccessful Bi-V and RV ATP attempt in 50.3% vs 59.2% VT episodes (p<0.001), respectively. The initial burst ATP was successful at terminating VT in 64.8% and 67.5% of patients with non-ischemic vs ischemic cardiomyopathy (p=0.010), respectively. The success rate of Bi-V and RV ATP was 65.4% and 65.8%, respectively (p=0.80) in patients with non-ischemic cardiomyopathy and 45.9% and 77.6%, respectively (p<0.001) in patients with ischemic cardiomyopathy.

Conclusion: It appears that an initial RV ATP is more effective than a Bi-V ATP at terminating VT, particularly among patients with ischemic cardiomyopathy. However, RV ATP resulted in a higher proportion of ICD shocks when ATP was unsuccessful.

Table 1—Burst ATP success by ATP location (Bi-V vs RV) and based on the presence or absence of ischemic cardiomyopathy

<table>
<thead>
<tr>
<th>ATP Success</th>
<th>Bi-V</th>
<th>RV only</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Cohort</td>
<td>60.8%</td>
<td>69.4%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>IHD</td>
<td>45.9%</td>
<td>77.6%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Non-IHD</td>
<td>65.4%</td>
<td>65.8%</td>
<td>0.80</td>
</tr>
<tr>
<td>Shock following unsuccessful ATP</td>
<td>50.3%</td>
<td>59.2%</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

CE-522-02

THE OUTCOME SPECTRUM FOR DILATED CARDIOMYOPATHY AND VENTRICULAR TACHYCARDIA: RESULTS FROM THE PROSPECTIVE, MULTICENTER, DCM VT ABLATION STUDY

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Background: Recurrent sustained ventricular tachycardia (VT) due to non ischemic dilated cardiomyopathy (DCM) is difficult to treat and long-term outcome data are limited.

Objective: We aimed to identify predictors for mortality or heart transplantation (MHT) and VT recurrence.

Methods: Consecutive DCM patients accepted for VT catheter ablation (RFCA) in 9 centers were prospectively enrolled and followed.

Results: Of 281 consecutive patients (age 60±13yrs, 85% men, LVEF 36±12%) 35% had VT storm, 20% incessant VT, and 68% failed amiodarone. During a median follow-up of 21 (IQR 6-30) months after RFCA (epicardial in 58%, no RFCA due to inaccessible target in 6.4%), 67(24%) patients died/underwent HT and 138(49%) had VT recurrence (45 within 30 days defined as early); the cumulative 4-year rate of VT or MHT was 70% and of MHT 38%. In multivariable analysis predictors of MHT were early VT recurrence (HR 2.92 (CI1.37-6.21), p<0.01), amiodarone at discharge (HR 3.23 (CI1.43-7.33, p=0.01), renal dysfunction (HR 1.92 (CI1.01-3.64, p=0.046), and LVEF (HR 1.36 (CI 1.0-1.84), p=0.052). A LVEF <32% was the optimal threshold to identify patients at risk for MHT (AUC 0.75). MHT per 100 person-years was 40.4 after early VT recurrence and significantly higher, compared to 14.2 after later VT recurrence and to 8.5 after RFCA with no VT recurrence (both p<0.01). Mortality rates for patients with VT recurrence after 30 days were not significantly higher than for patients with no VT recurrences Patients with early recurrence and LVEF <32% had a 1-year MHT rate of 55% (figure). VT recurrence was predicted by prior ICD shocks, basal antero-septal VT origin, and procedural failure but not LVEF.

Conclusion: DCM patients needing RFCA for VT are a high-risk group. Following RFCA half remain free of VT recurrences. Early VT recurrence with LVEF<0.32 identifies those with a very high risk and screening for mechanical support/ HT should be considered. Late VT recurrence after RFCA does not predict worse outcome.

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LONGITUDINAL PREDICTION OF VENTRICULAR ARRHYTHMIAS IN PATIENTS WITH ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY

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Background: The arrhythmogenic right ventricular cardiomyopathy (ARVC) risk calculator (https://www.arvcrisk.com) stratifies risk for ventricular arrhythmia (VA) at the time of ARVC diagnosis. However, the risk factors included in the ARVC calculator change with time, and how well it performs at follow up evaluations is unknown.

Objective: To identify the temporal trends of VA risk factors and test the longitudinal performance of the ARVC calculator.