three cases had an isthmus in the area with 2-4 mm wall thickness. 

**Conclusion:** In cases of old myocardial infarction with thin scars, bipolar voltage maps with widened interelectrode spacing represented wall thickness and identified heterogeneous scar as arrhythmogenic substrate.

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**PO-635-08**

**REDUCTION IN ANTI-ARRHYTHMIC DRUG USE AND IMPROVEMENT IN QUALITY OF LIFE FOLLOWING THE HYBRID CONVERGENT PROCEDURE IN PERSISTENT AND LONGSTANDING PERSISTENT ATRIAL FIBRILLATION: A CONVERGE TRIAL ANALYSIS**

David B. De Lurgio MD, FHRS; Karl J. Crossen MD; Christopher Blauth; Faraz Kerendi; Saumil R. Oza MD; Anthony R. Magnano MD, FHRS; Mark mostovych; Michael Halkos; David R. Tschopp MD, FHRS and Jaswinder Gill

**Background:** CONVERGE (NCT01984346) was a prospective, multicenter, randomized controlled trial comparing effectiveness of combined epicardial and endocardial (hybrid convergent, HC) ablation to endocardial catheter ablation (CA) for treatment of persistent atrial fibrillation (PersAF) and longstanding PersAF (LSPAF). In 2020, we reported that CONVERGE met protocol-stated primary safety and effectiveness. Here we report CONVERGE quality of life (QOL) results and anti-arrhythmic drug (AAD) utilization after HC.

**Objective:** To determine QOL and AAD utilization changes following HC.

**Methods:** Eligible pts were 18-80 yrs, had drug-refractory symptomatic PersAF or LSPAF, and left atrium diameter ≤6.0 cm. Enrolled pts were randomized 2:1 to HC or CA. AAD use at baseline and any time after a 3-mos blanking period until 12- and 18-mos post-HC procedure were evaluated. Atrial Fibrillation Severity Scale (AFSS) and the 36-Item Short Form Health Survey (SF-36) were assessed at baseline and 12 mos.

**Results:** 102 pts were treated with HC; 38 pts had LSPAF. The proportion of pts in the HC arm who used Class I/III AADs post-blanking period through 12 mos was 34.3%, vs 84.3% at baseline; for LSPAF pts, the proportions were 31.6% through 12 mos vs 71.1% at baseline. AAD use was similar through 18-months with 37.2% of all pts and 31.6% of LSPAF pts on AADs. AFSS Composite and Overall Symptoms Scores and SF-36 Mental and Physical Component scores were significantly improved at 12 mos vs baseline (Table, Figure).

**Conclusion:** In CONVERGE, ~66% of patients were off AADs through 12-mos follow-up representing a ~60% relative reduction in AAD use when compared to baseline. QOL measures improved at 12 months follow-up with HC.

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**Table. Mean Atrial Fibrillation Severity Scale and SF-36 Results Following Hybrid Convergent Procedure (IT) procedure at Baseline and 12 Months follow-up**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Overall Composite</th>
<th>Overall Symptom</th>
<th>AFSS Overall ITT population</th>
<th>SF-36 Overall ITT population</th>
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<td>Baseline</td>
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<tr>
<td>3 mos blanking period</td>
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<td>HC</td>
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<tr>
<td>P value</td>
<td>(n=60)</td>
<td>(n=60)</td>
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<td>(n=60)</td>
</tr>
</tbody>
</table>

**Poster Session II S187**

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**POSTER PO-636:**

**Posters: Catheter Ablation at Pod 8**

Friday, April 29, 2022

3:00 PM - 5:00 PM

**PO-636-01**

**DURABILITY OF PULMONARY VEIN AND POSTERIOR WALL ISOLATION FOLLOWING HYBRID CONVERGENT ABLATION FOR LONG STANDING PERSISTENT ATRIAL FIBRILLATION**

Adnan Ahmed MD; Rishi Charate MD; Peter H. Park MD, FHRS; Rangarao V. Tummala MBBS; Ahmed romeya; Justin Van Meeteren; Rakesh Gopinathanmair MA, MD, FHRS; Dhanunjaya R. Lakkireddy MD, FHRS and Naga Venkata Krishna Chand Pothineni MD

**Background:** Hybrid convergent ablation has been shown to be superior to endocardial catheter ablation in patients with long standing persistent AF (LSPAF). However, data on durability of a hybrid ablation lesion set during repeat procedures is sparse.
**PO-636-02**

**UTILITY OF HIGH OUTPUT PACING TO IDENTIFY CRITICAL COMPONENTS OF VENTRICULAR TACHYCARDIA CIRCUITS IN PATIENTS WITH ISCHEMIC AND NONISCHEMIC CARDIOMYOPATHY**

**Bishnu P. Dhakal MD; Lohit Garg MBBS; David S. Frankenkl MD, FHRS; Matthew Craig Hyman MD; Gustavo S. Guandalini MD; Gregory E. Supple MD, FHRS; Saman Nazarian MD, PhD, FHRS; Ramanan Kumareswaran MD; Michael P. Riley MD, PhD; Pasquale Santangeli MD, PhD; David Lin MD, FHRS; David J. Callans MD, FHRS, CCDS; Jeffrey Arkles MA, MD; Ferrin C. Garcia MD; Robert D. Schaller DO, FHRS; Erica S. Zado PAC, FHRS; Francis E. Marchlinski MD, FHRS and Sanjiv Dixit MD, FHRS**

**Background:** Entrainment and pace mapping are used to identify critical components (CC) of ventricular tachycardia (VT) circuits. In patients with dense myocardial scar, VT circuits can be located deep and may elude capture at standard pacing outputs (SO; up to 10 mA at 2 ms). **Objective:** The purpose of this study was to assess utility of high output pacing (HOP; 50 mA at 2 ms pulse width) for identifying CC of VT circuits after SO failed to elicit capture in densely scarred myocardial tissue. **Methods:** Our standard VT ablation approach included electroanatomic mapping for substrate characterization and entrainment and/or pace-mapping to identify CC of VT circuits. Patients that required HOP comprised the study cohort. Ablation end-points were VT termination and additional substrate modification to achieve complete non-inducibility. **Results:** Nine patients (age 69 ± 9 years; all males) met inclusion criteria. 0.9% patients required HOP during VT ablation. Mean left ventricular ejection fraction was 34 ± 14% and majority (78%) had ischemic cardiomyopathy. The location of scar was LV apex in 3 patients, inferior wall in 4, septum in 1 and RVOT in 1. HOP was used to successfully entrain VT in 5 patients yielding isthmus sites in 4 and entrance/exit sites in 2 (Figure). VT terminated with radiofrequency ablation at these sites identified with HOP. In the remaining 3 patients, HOP identified scar locations with delayed exit (long stimulus to QRS). Acute procedural success (VT non-inducibility) was achieved in all without any adverse events. Over a mean follow up period of 1.2 ± 1.2 years, only one patient experienced VT recurrence requiring repeat ablation during which the same location (RVOT) was targeted. **Conclusion:** In patients with dense scar which is unexcitable with SO, HOP can provide valuable localizing information and facilitate successful VT ablation by identifying critical components of the reentrant circuit.