

Supplemental Material

Online Appendix

Supplemental Table 1: Results of EAM and Catheter Ablation

	VT Patients (N=15)
Mapping in LV / RV / Both	7 / 4 / 4
Analyzed EAM Points in LV / RV	1708 / 774
Mean LV Volume [ml]	175±108
Low Voltage Area in LV [CM ²] (% for LV Endocardium)	14.9±21.5 (8.4 ±12.7)
Dense Scar in LV [CM ²] (% for LV Endocardium)	4.4±7.9 (1.6 ±2.8)
Mean RV Volume [ml]	178±38
Low Voltage Area in RV [CM ²] (% for LV Endocardium)	70.4±80.2 (18.4 ±18.6)
Dense Scar in RV [CM ²] (% for LV Endocardium)	8.4 ±16.3 (2.1 ±5.2)
Surface Registration Error [mm]	2.7 ±0.4
Number of Induced VT	2.6±1.7
Number of RF Application	26±13
Critical Sites of VT or PVC Origin	20 sites (15 patients)
11/12 or 12/12 Pace Map	20 (100%)
PPI-VTCL <30ms	4 (20%)
Concealed Entrainment	4 (20%)
Successful Ablation / Modification	7 / 7
Procedure Time	364±95

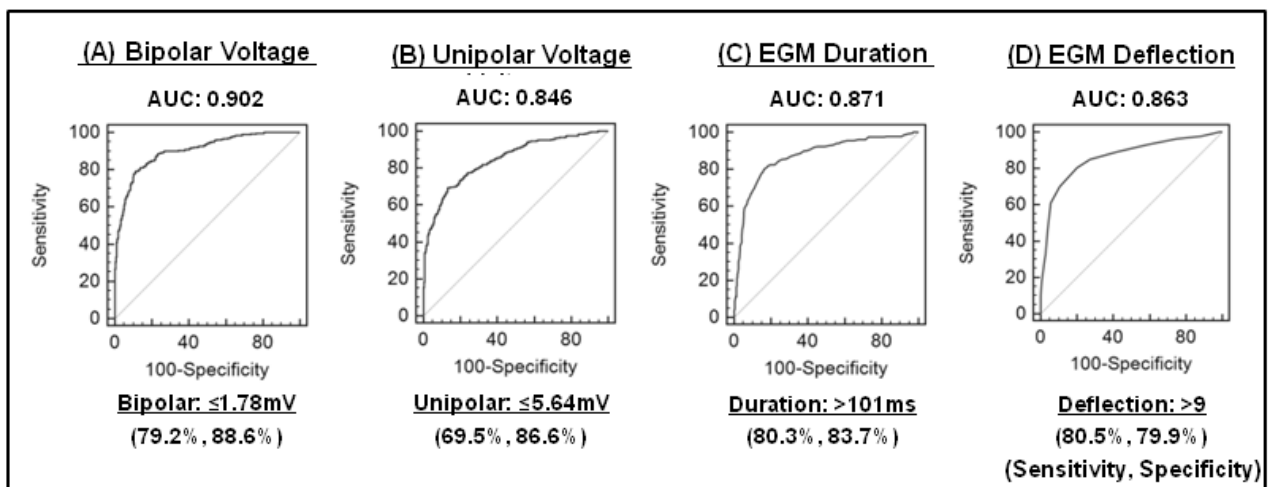
Fluoroscopy Time	75±25
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Ablation Time	20±15
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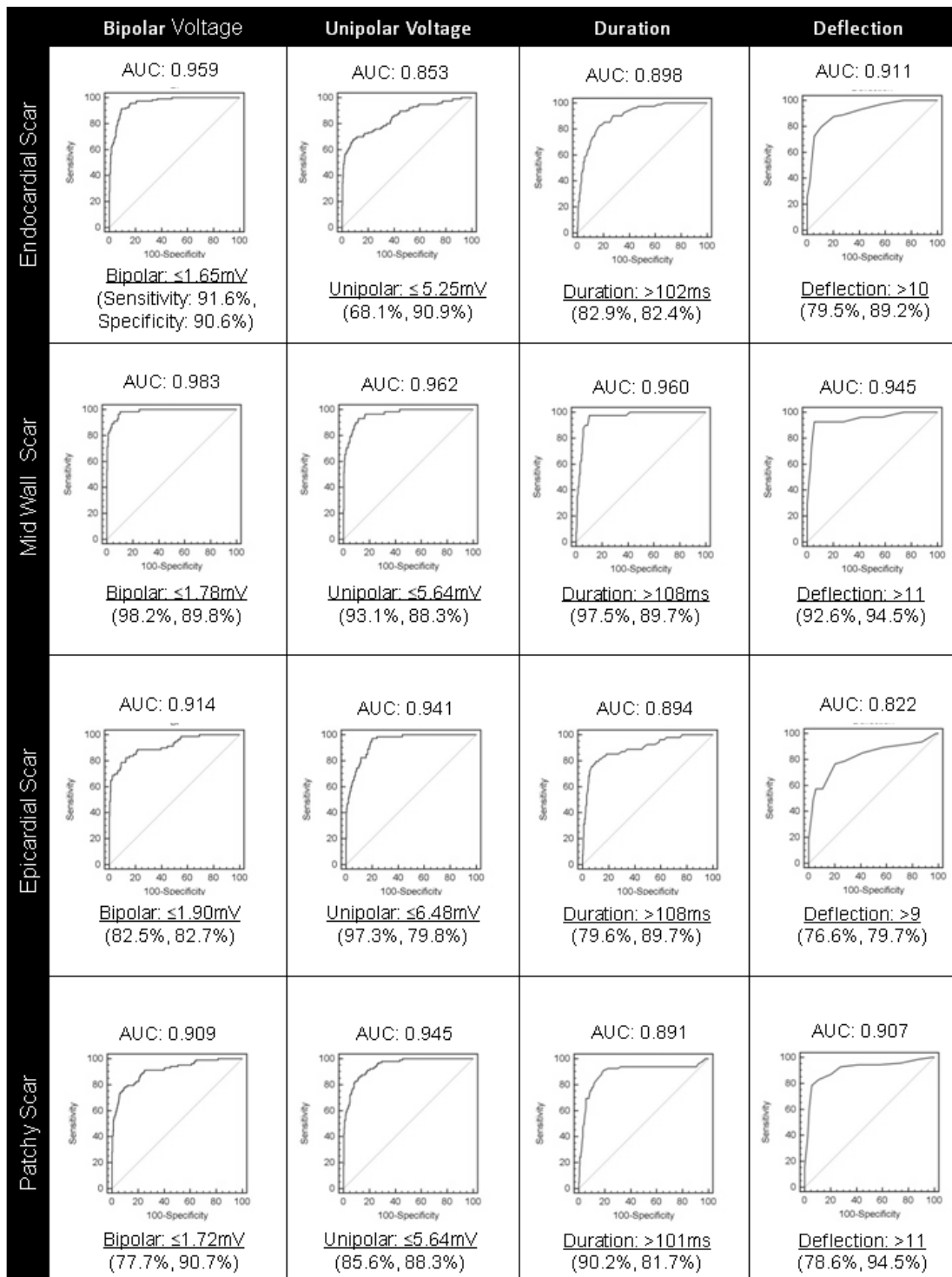
Values are shown as number (%). Low voltage areas and dense scar on EAM were defined as areas with <1.5mV and <0.5mV of bipolar voltages, respectively.

RF=radiofrequency; PPI-VTCL=post pacing interval-VT cycle length. See abbreviations in Table 1.

Supplemental Figure 1 – Receiver Operating Characteristics Curves for Nonischemic Scar Identification Using EGM parameters – The figure illustrates receiver operating characteristics curves for the scar identification on EAMs regarding each EGM parameter (bipolar and unipolar voltages, duration and deflections). The optimal thresholds for bipolar and unipolar voltage, duration and deflection to identify nonischemic scar regardless of intramural scar types are shown with specificity and sensitivity, respectively.



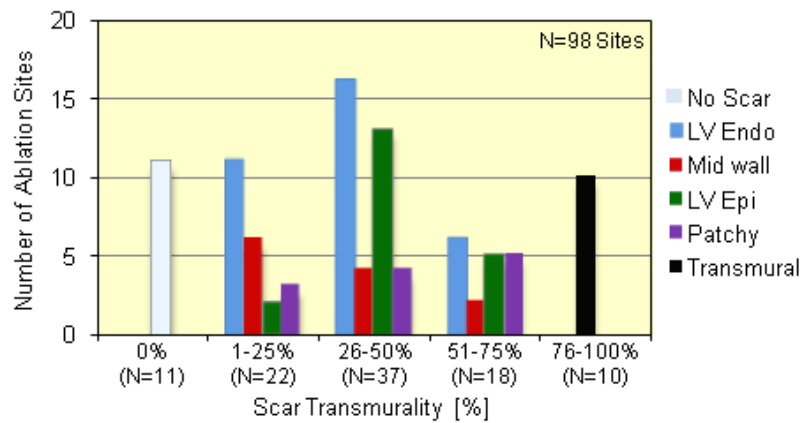
Supplemental Figure 2 – Receiver Operating Characteristics Curves for Nonischemic Scar Identification Using EGM parameters by scar intramural location – The figure illustrates receiver operating characteristics curves for the scar identification on EAMs regarding each EGM parameter by scar intramural location (endocardial, mid wall, epicardial and patchy scar). The optimal thresholds for bipolar and unipolar voltage, duration and deflection to identify nonischemic scar for each intramural scar type is shown with specificity and sensitivity, respectively.



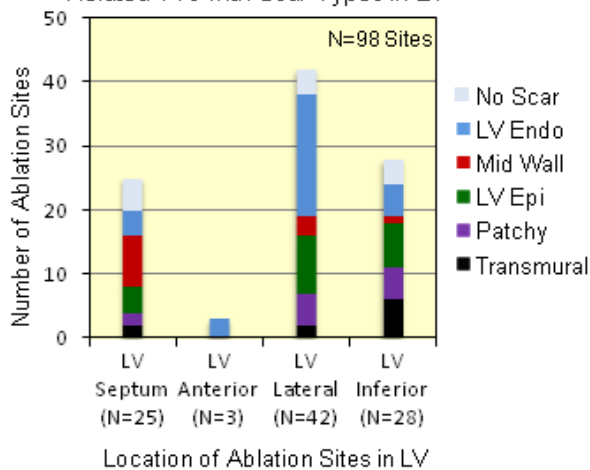
Supplemental Figure 3 – Associations between Septal Scar on LGE-CMR and Ablation Sites

The figure illustrates the association of ablation sites and critical VT sites with scar transmurality. (A) Ablation sites were observed in regions with scar or adjacent to scar. Ablation sites in LV (B) and RV (C) were more frequently observed in LV lateral and RV septal regions, respectively.

(A) Association of Ablation Sites for Scar-related VTs with Scar Types in LV



(B) Association of Ablation Sites for Scar-Related VTs with Scar Types in LV



(C) Association of Ablation Sites for Scar-Related VTs with Scar Types in RV

