Episodes 1 and 2: Taking the Lead

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Heart Rhythm Society℠

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THE LEAD PODCAST

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Disclosures—Hosts

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- Stock Ownership: Atlas 5D
- Speaking and Teaching, Honoraria: American College of Cardiology, Zoll Medical Corporation

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- Nothing to disclose.

Disclosures—Contributors

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Episode 2: A Discussion of Epicardial Roof-Dependent Macro-Reentrant Tachycardia

Article for Discussion: *Epicardial Roof-Dependent Macro-Reentrant Tachycardia After Ablation of Atrial Fibrillation: Prevalence, Electrophysiological Characteristics, and Ablation Strategy*

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Epicardial Roof-Dependent Macro-Reentrant Tachycardia After Ablation of Atrial Fibrillation: Prevalence, Electrophysiological Characteristics, and Ablation Strategy

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- Simultaneous publication in JACC EP: https://www.jacc.org/doi/10.1016/j.jacep.2023.03.017
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Epicardial Roof-Dependent Macro-Reentrant Tachycardia After Ablation of Atrial Fibrillation: Prevalence, Electrophysiological Characteristics, and Ablation Strategy

- Retrospective review of roof-dependent atrial flutter cases after prior ablation for atrial fibrillation
  - High density mapping and entrainment mapping
  - 44 of 56 patients included over 22 months
- 15 of 44 patients had epicardial circuit portions
  - Indirect evidence of epicardial bypass of roof/dome section
    - SNO zone connecting PV antra interrupting activation pattern, pseudo focal activation in posterior wall, PPI-TCL>30 ms at dome and SNO zone sites, <30 ms anterior and posteroinferior walls and possibly at SNO zone with high output pacing, 10% missing CL, could be biatrial
  - Most had prior roof line, posterior wall ”isolation”
  - RF approach: 1) activation breakthrough, if any, will be targeted first; 2) roofline ablation; 3) floor line ablation; 4) supplementary electrogram-guided ablation in the dome and posterior wall; 5) ablation in the interatrial septum or anterior wall can be attempted at the discretion of the operators; and 6) roofline or floor line block will be examined using differential pacing maneuvers under sinus rhythm, and supplementary ablation that will be performed to close the gap.
- Endocardial ablation terminated in 11
  - Posterior breakthrough 2, Roof 1, Floor/posterior 5,
  - Anterior or septal 3
- 3 DCCV, 1 spontaneous termination
- 2/14 with > 3 month f/u had recurrence

Discussion Points

- What is “epicardial conduction”
  - Artifact of insufficient mapping?
  - Separation of layers?
  - Non-transmural lesions?
    - Heat sink?
- How best to map
  - Endo only?
  - Epicardial access?
  - PA?
- How/where to ablate
  - Endo RF
    - Power/duration?
    - ½ NS
  - Epi RF?
  - Venous ETOH?
- How to Prevent
  - Role of imaging?

Thank you!