



Episodes 1 and 2: Taking the Lead

Recorded in front of a live audience in New Orleans, Louisiana
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Today's Hosts:



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Disclosures—Hosts

Jason T. Jacobson, MD, FHRS

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

Danesh Kella, MBBS, FHRS

- **Nothing to disclose.**



Disclosures—Contributors

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- **Stock Options, Privately Held: Farapulse**

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- **Nothing to disclose.**

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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*

Heart Rhythm 2023 Abstract Authors: Yiwei Lai, MD, Xueyuan Guo, MD, Caihua Sang, MD, Qi Guo, MD, Mingyang Gao, MD, Lihong Huang, MD, Song Zuo, MD, Xu Li, MD, Chenxi Jiang, MD, Songnan Li, MD, Changyi Li, MD, Nian Liu, MD, Xiaoxia Liu, MD, Xin Zhao, MD, Wei Wang, MD, Ribo Tang, MD, Deyong Long, MD, Xin Du, MD, Jianzeng Dong, MD, Changsheng Ma, MD



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>
- Hosts:
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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!