

# Circulation: Arrhythmia and Electrophysiology

An American Heart  
Association Journal

December 2017  
Volume 10  
Number 12

## IN THIS ISSUE: DECEMBER

### ORIGINAL ARTICLES

**Laser Balloon or Wide-Area Circumferential Irrigated Radiofrequency Ablation for Persistent Atrial Fibrillation: A Multicenter Prospective Randomized Study** e005767

*Boris Schmidt, MD; Petr Neuzil, MD; Armin Luik, MD; Joaquin Osca Asensi, MD; Jan Wilko Schrickel, MD; Thomas Deneke, MD; Stefano Bordignon, MD; Jan Petru, MD; Matthias Merkel, MD; Lucie Sediva, PhD; Annemarie Klostermann, BS; Laura Perrotta, MD; Oscar Cano, MD; K.R. Julian Chun, MD*

**Ventricular Tachycardia Ablation in the Elderly: An International Ventricular Tachycardia Center Collaborative Group Analysis** e005332

*Kairav Vakil, MD; Santiago Garcia, MD; Roderick Tung, MD; Marmar Vaseghi, MD, PhD; Usha Tedrow, MS, MD; Paolo Della Bella, MD, PhD; David S. Frankel, MD; Pasquale Vergara, MD, PhD; Luigi Di Biase, MD, PhD; Koichi Nagashima, MD, PhD; Shiro Nakahara, MD, PhD; Wendy S. Tzou, MD; J. David Burkhardt, MD; Timm Dickfeld, MD, PhD; J. Peter Weiss, MD; Jared Bunch, MD; David Callans, MD; Dhanunjaya Lakkireddy, MD; Andrea Natale, MD; William H. Sauer, MD; William G. Stevenson, MD; Francis Marchlinski, MD; Kalyanam Shivkumar, MD, PhD; Venkatakrishna N. Tholakanahalli, MD*

#### Editorial

**Ventricular Tachycardia Ablation: Are We in a New Age?** e005888

*Arvinth N. Kanagasundram, MD; Ricardo M. Lugo, MD; MA, Gregory F. Michaud, MD*

**Time-to-Effect–Based Dosing Strategy for Cryoballoon Ablation in Patients With Paroxysmal Atrial Fibrillation: Results of the plusONE Multicenter Randomized Controlled Noninferiority Trial** e005318

*Ángel Ferrero-de-Loma-Osorio, MD, PhD; Amaya García-Fernández, MD, PhD; Jesús Castillo-Castillo, MD; Maite Izquierdo-de-Francisco, MD, PhD; Alicia Ibáñez-Criado, MD; Jose Moreno-Arribas, MD, PhD; Angel Martínez, MD; Vicente Bertomeu-González, MD, PhD; Patricia López-Mases, RN; María Ajo-Ferrer, RN; Carlos Núñez, MD; Lourdes Bondanza-Saavedra, MD; Juan Miguel Sánchez-Gómez, MD; Juan Gabriel Martínez-Martínez, MD, PhD; Francisco Javier Chorro-Gascó, MD, PhD; Ricardo Ruiz-Granell, MD, PhD*

**Thromboembolic Risks of the Procedural Process in Second-Generation Cryoballoon Ablation Procedures: Analysis From Real-Time Transcranial Doppler Monitoring** e005612

*Shinsuke Miyazaki, MD; Tomonori Watanabe, MD; Takatsugu Kajiyama, MD; Jin Iwasawa, MD; Sadamitsu Ichijo, MD; Hiroaki Nakamura, MD; Hiroshi Taniguchi, MD; Kenzo Hirao, MD; Yoshito Iesaka, MD*

#### Editorial

**More Bubble, More Trouble?: Insights into Microembolic Events During Left Atrial Ablation** e005955

*Boris Schmidt, MD; K.R. Julian Chun, MD*

**Near-Field Ultrasound Imaging During Radiofrequency Catheter Ablation: Tissue Thickness and Epicardial Wall Visualization and Assessment of Radiofrequency Ablation Lesion Formation and Depth** e005295

*David E. Haines, MD; Matthew Wright, MD, PhD; Erik Harks, PhD; Szabolcs Deladi, PhD; Steven Fokkenrood, MSc; Rob Brink, BSc; Harm Belt, PhD; Alexander F. Kolen, PhD; Nenad Mihajlovic, PhD; Fei Zuo, PhD; Darrell Rankin, Meng; William Stoffregen, DVM; Debra Cockayne, PhD; Joseph Cefalu, BSc*

#### Editorial

**Near-Field Ultrasound Imaging of Ablation Lesion Formation: More Than Meets the Eye?** e006010

*Matthew M. Zipse, MD; Duy T. Nguyen, MD*



IN THIS ISSUE



PODCAST



OPEN ACCESS

**Significance of Inducible Nonsustained Ventricular Tachycardias After Catheter Ablation for Ventricular Tachycardia in Ischemic Cardiomyopathy** e005005

*Akira Fujii, MD; Koichi Nagashima, MD, PhD; Saurabh Kumar, MD, PhD; Shinichi Tanigawa, MD; Samuel H. Baldinger, MD; Gregory F. Michaud, MD; Roy M. John, MD, PhD; Bruce A. Koplan, MD, MPH; Michifumi Tokuda, MD, PhD; Keiichi Inada, MD, PhD; Usha B. Tedrow, MD, MSc; William G. Stevenson, MD*

**Endocardial Activation Drives Activation Patterns During Long-Duration Ventricular Fibrillation and Defibrillation** e005562

*Nuttanont Panitchob, PhD; Li Li, PhD; Jian Huang, MD, PhD; Ravi Ranjan, MD, PhD; Raymond E. Ideker, MD, PhD; Derek J. Dossdall, PhD*

**Editorial**

**Ventricular Fibrillation: Rotors or Foci? Both!** e006011

*Kedar K. Aras, PhD; Matthew W. Kay; Igor R. Efimov, PhD*

**Pharmacologic Prevention of Incident Atrial Fibrillation: Long-Term Results From the ALLHAT (Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial)** e005463

*Thomas A. Dewland, MD; Elsayed Z. Soliman, MD, MSc; Jose-Miguel Yamal, PhD; Barry R. Davis, MD, PhD; Alvaro Alonso, MD, PhD; Christine M. Albert, MD, MPH; Lara M. Simpson, PhD; L. Julian Haywood, MD; Gregory M. Marcus, MD, MAS, for the ALLHAT Collaborative Research Group*

**Editorial**

**Atrial Fibrillation: Once Again Not So Easy to Prevent** e005956

*James A. McCaffrey, MD; Cynthia M. Tracy, MD*

**Ablation of Rotor Domains Effectively Modulates Dynamics of Human: Long-Standing Persistent Atrial Fibrillation** e005740

*David Calvo, MD, PhD; José Rubín, MD, PhD; Diego Pérez, MD; César Morís, MD, PhD*

**Editorial**

**Rotational Drivers in Atrial Fibrillation: Are Multiple Techniques Circling Similar Mechanisms?** e006022

*Junaid A.B. Zaman, MA, BMBCh, MRCP; Albert J. Rogers, MD, MBA; Sanjiv M. Narayan, MSc, MD, PhD*

**Radiofrequency Catheter Ablation of Atrial Tachycardias in Congenital Heart Disease: Results With Special Reference to Complexity of Underlying Anatomy** e005451

*Sophia Klehs, MD; Heike E. Schneider, MD; David Backhoff, MD; Thomas Paul, MD; Ulrich Krause, MD*

**Editorial**

**Ablation of Atrial Arrhythmias in Postoperative Congenital Heart Disease Patients: Have We Reached the Upper Limit of Success or Is It Time for a Paradigm Shift in Strategy?** e006021

*Jeffrey P. Moak, MD*

**Age of First Arrhythmic Event in Brugada Syndrome: Data From the SABRUS (Survey on Arrhythmic Events in Brugada Syndrome) in 678 Patients** e005222

*Anat Milman, MD, PhD; Antoine Andorin, MD; Jean-Baptiste Gourraud, MD, PhD; Frederic Sacher, MD; Philippe Mabo, MD; Sung-Hwan Kim, MD; Shingo Maeda, MD, PhD; Yoshihide Takahashi, MD, PhD; Tsukasa Kamakura, MD, PhD; Takeshi Aiba, MD, PhD; Giulio Conte, MD, PhD; Jimmy J.M. Juang, MD, PhD; Eran Leshem, MD; Michael Rahkovich, MD; Aviram Hochstadt, MD; Yuka Mizusawa, MD; Pieter G. Postema, MD, PhD; Elena Arbelo, MD, PhD; Zhengrong Huang, MD, PhD; Isabelle Denjoy, MD; Carla Giustetto, MD; Yanushi D. Wijeyeratne, MD; Carlo Napolitano, MD, PhD; Yoav Michowitz, MD; Ramon Brugada, MD, PhD; Ruben Casado-Arroyo, MD, PhD; Jean Champagne, MD; Leonardo Calo, MD; Georgia Sarquella-Brugada, MD, PhD; Jacob Tfelt-Hansen, MD, DMSc; Silvia G. Priori, MD, PhD; Masahiko Takagi, MD, PhD; Christian Veltmann, MD; Pietro Delise, MD; Domenico Corrado, MD, PhD; Elijah R. Behr, MD; Fiorenzo Gaita, MD; Gan-Xin Yan, MD, PhD; Josep Brugada, MD, PhD; Antoine Leenhardt, MD; Arthur A.M. Wilde, MD, PhD; Pedro Brugada, MD, PhD; Kengo F. Kusano, MD, PhD; Kenzo Hirao, MD, PhD; Gi-Byoung Nam, MD, PhD; Vincent Probst, MD, PhD; Bernard Belhassen, MD*

CIRCULATION: ARRHYTHMIA AND ELECTROPHYSIOLOGY (ISSN 1941-3084) is published monthly online-only by Wolters Kluwer Health, Inc. at 14700 Citicorp Drive, Bldg 3, Hagerstown, MD 21742. Business offices are located at Two Commerce Square, 2001 Market Street, Philadelphia, PA 19103. Production offices are located at 351 West Camden Street, Baltimore, MD 21201-2436. AHA/ASA Domestic or International Members have online access to the journal as a benefit of membership. Individuals may subscribe for their personal use at the following annual rates world-wide: \$340 for non-members. AHA membership information can be found online at professional.heart.org.



IN THIS ISSUE



PODCAST



OPEN ACCESS

10 (12)

*Circ Arrhythm Electrophysiol.* 2017;10:

*Circulation: Arrhythmia and Electrophysiology* is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231

Copyright © 2017 American Heart Association, Inc. All rights reserved.

Print ISSN: 1941-3149. Online ISSN: 1941-3084

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://circep.ahajournals.org/content/10/12>

**Permissions:** Requests for permissions to reproduce figures, tables, or portions of articles originally published in *Circulation: Arrhythmia and Electrophysiology* can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the [Permissions and Rights Question and Answer](#) document.

**Reprints:** Information about reprints can be found online at:  
<http://www.lww.com/reprints>

**Subscriptions:** Information about subscribing to *Circulation: Arrhythmia and Electrophysiology* is online at:  
<http://circep.ahajournals.org/subscriptions/>