



Highlights from:

Mansour Razminia, MD, Michael Cameron Willoughby, DO, Hany Demo, MD, Hesam Keshmiri, DO, Theodore Wang, MD, Oliver J. D'silva, MD, Terry A. Zheutlin, MD, Hakeem Jibawi, DO, Paul Okhumale, MD, and Richard F. Kehoe, MD

Razminia et al., Pacing and Electrophysiology, 40:425-33, Mar 2017 DOI: 10.1111/pace.13038

Fluorless Catheter Ablation of Cardiac Arrhythmias: A 5 Year Experience

INTRODUCTION

- ▶ This five-year retrospective analysis examined 500 consecutive patients who underwent fluorless cardiac catheter ablation from December 2010 to March 2016.

METHODS

- ▶ All transeptal punctures were done under intracardiac echocardiography (ICE) and three-dimensional (3D) mapping system guidance without the use of fluoroscopy.
- ▶ A combination of intracardiac electrograms, electroanatomic mapping (EAM), and ICE were used to position therapeutic and diagnostic catheters.
- ▶ 639 arrhythmias were ablated, including atrioventricular reciprocating tachycardia, atrioventricular nodal reentrant tachycardia, atrial fibrillation, premature ventricular contractions, and ventricular tachycardia.

RESULTS

- ▶ The average ablation length was 151.1 min (range of 22–501 min), with the mean procedural time decreasing with user experience (Figure 1). Using a conservative estimate of 10 min of fluoroscopy time in a standard case, 83 hours of continuous fluoroscopy time was eliminated. Removal of fluoroscopy also allowed pregnant staff members to continue to work.
- ▶ Arrhythmia recurrence rates were in line with previously reported recurrence rates for fluoroscopy-guided ablations of various types of arrhythmias.
- ▶ The overall rate of major complications involving ablations for all types of arrhythmias was observed to be lower without fluoroscopy than using fluoroscopy (1.0% vs. 2.9%–3.8%, respectively), even though there was a slightly higher rate of major complications observed with nonfluoroscopic ablations for focal atrial tachycardia (1.7%) compared to the traditional fluoroscopy-guided approach (0.8%).

CONCLUSIONS

- ▶ This study confirms that the use of new imaging and mapping technologies have enabled nonfluoroscopic ablations for a variety of arrhythmias without increasing procedural time, and without compromising safety and efficacy.
- ▶ Nonfluoroscopic ablation eliminates radiation exposure and could decrease the risk of orthopedic injury.

Procedure Time

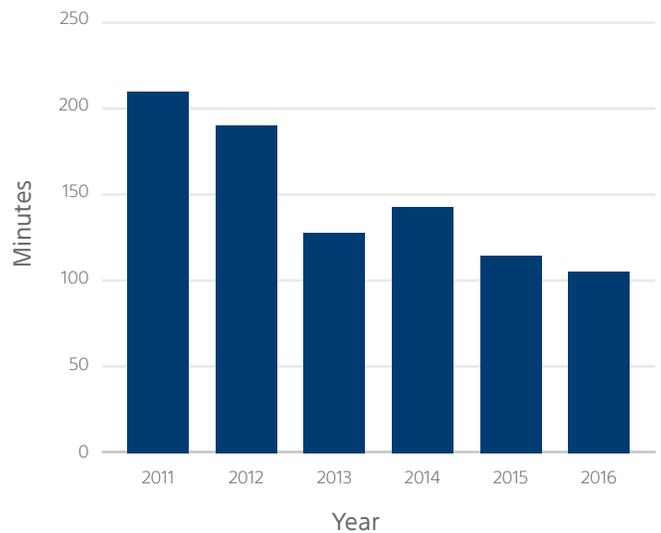


Figure 1. Mean Procedure duration in minutes by year: 2011 (209.6 min), 2012 (189.8 min), 2013 (127.4 min), 2014 (142.4 min), 2015 (114.2 min), and 2016 (105.3 min).

All trademarks are property of their respective owners. Patents Pending and/or issued. CAUTION: The law restricts these devices to sale by or on the order of a physician. Rx only. Indications, Contraindications, Warnings, and Instructions For Use can be found in the product labelling supplied with each device or at www.baylismedical.com.

Products shown for INFORMATION purposes only and may not be approved or for sale in certain countries.
This material not intended for use in France.

Boston Scientific is a Global Company. Please note that model numbers, indications, contraindications, warnings and specifications may differ depending on geographic region. Not all information displayed in this brochure may be licensed in accordance with Canadian law. Please contact your Boston Scientific representative for local labeling, product specifications and licensed model numbers.

**Boston
Scientific**
Advancing science for life™

© 2023 Boston Scientific Corporation
or its affiliates. All rights reserved.

EP-1613705-AA