

Editorial Highlights on Treatment for Atrial Fibrillation

Duraisamy Balaguru

Associate Professor, Division of Pediatric Cardiology, UT Houston School of Medicine, USA

Editorial

Journal of Cardiovascular Diseases & Diagnosis commemorates its 7 years long service to the scientific community by consistently publishing peer-reviewed articles and tracking the progress and significant advancements in the field of Cardiovascular Diseases. Ever since its inception in the year 2013, releasing its regular issue on a bimonthly basis, this transdisciplinary journal is also releases special issues and conference proceedings from time to time, thus comprehensively covering a wide range of topics and emerging challenges, enhancements, therapeutics towards Cardiovascular Diseases. The journal strives to publish the original research articles, epidemiological studies, new methodological clinical approaches, case reports, design and goals of clinical trials, review articles, points of view, editorial's, and Images in cardiovascular medicine. In this issue some of the recent and impactful research articles that were published by the journal will be discussed.

Discussion on one of the eminent contributions: "Electrical Isolation of the Left Atrial Appendage - A New Frontier in the Treatment for Atrial Fibrillation". Atrial fibrillation is not only the most common clinical arrhythmia, it is also one of the most challenging conditions to treat in day-to-day clinical practice. In particular, the persistent form of this condition is not easily amenable to traditional forms of therapy, whereas, the paroxysmal form is far more responsive to standard modes of treatment. There are two main forms of Atrial Fibrillation, namely paroxysmal AF (PAF) and persistent AF (PersAF), and each is quite different in the underlying pathophysiology mechanisms as well as responsiveness to therapies [1]. Traditional forms of treatment for PAF, such as PVI, are much less effective for PersAF, particularly in longstanding PersAF. Hence, for several years the search for better forms of treatment in PersAF has shifted beyond the role of the PVs alone; one of the most promising candidates in this field is LAAEI. The means to achieve LAA electrical isolation (LAAEI) have been evolving over the last decade [2].

Radiofrequency catheter, or cryoballoon, ablation are challenging techniques to ensure complete electrical isolation of the LAA, without resulting in collateral damage to this organ or nearby structures. Furthermore, the electrically inactive LAA acts as a greater source for thrombus formation in the absence of strict lifelong oral anticoagulation or without the application of a closure device. The Lariat suture device offers the combination of LAAEI and LAA closure all at once [3]. Complications rates related to the procedure and subsequent recovery from inserting a Lariat device require further inspection. Surgical amputation has long been practiced in general cardiac surgery, but this usually requires open chest access; in addition, research is necessary to assess the outcomes specifically for PersAF.

Lately, the AtriClip has been employed as part of hybrid AF ablations - initially with the aim of mitigating cardiac thromboembolic risk, but subsequently also as a potential tool for electrical isolation of the LAA. Traditionally, these hybrid ablation procedures have utilised a VATS approach and have shown great promise in treating more advanced persistent or long-standing PersAF where outcomes from traditional catheter ablation are less than optimal. In such cases, the AtriClip is deployed when approaching the heart from the left-sided VATS. This technique has been shown to be feasible and effective in several small VATS hybrid AF ablation studies [4].

These research articles published by the journal states that the AtriClip device is easy to deploy, either during concomitant open chest surgery or as a stand-alone minimally invasive procedure. It too offers the combined benefit of LAAEI and LAA closure and is becoming an increasingly popular adjunct to the minimally invasive Convergent hybrid AF ablation technique. Whilst there is much excitement in this area, studies are required to assess the outcomes in preventing recurrent AF.

References

1. Pak, Hui-Nam. "Catheter ablation of long-standing persistent atrial fibrillation: A reckless challenge or a way to real cure?." *Korean Circ J* 49 (2019): 134-145
2. Lakkireddy, Dhanunjaya, Muhammad R. Afzal, Randall J. Lee, and Hosakote Nagaraj, et al. "Short and long-term outcomes of percutaneous left atrial appendage suture ligation: Results from a US multicenter evaluation." *Heart Rhythm* 13 (2016): 1030-1036.
3. Afzal, Muhammad R, Arun Kanmanthareddy, Matthew Earnest, and Madhu Reddy, et al. "Impact of left atrial appendage exclusion using an epicardial ligation system (LARIAT) on atrial fibrillation burden in patients with cardiac implantable electronic devices." *Heart Rhythm* 12 (2015): 52-59
4. Pison, Laurent, Sandro Gelsomino, Fabiana Luca, and Orlando Parise, et al. "Effectiveness and safety of simultaneous hybrid thoracoscopic and endocardial catheter ablation of lone atrial fibrillation." *Ann Thorac Surg* 3(2014): 38.

How to cite this article: Balaguru Duraisamy. "Editorial Highlights on Treatment for Atrial Fibrillation". *J Cardiovasc Dis Diagn* 8 (2020) doi: 10.37421/jcdd.2020.8.412

*Address for Correspondence: Duraisamy Balaguru, Associate Professor, Division of Pediatric Cardiology, UT Houston School of Medicine, USA, Tel: +7135007685; E-mail: duraisamy.balaguru@uth.tmc.edu

Received: 30 July, 2020; Accepted: 31 July, 2020; Published: 07 August, 2020

Copyright: © 2020 Balaguru D, et al. This is an open-access article distributed under the terms of the creative commons attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.