

World Atrial Fibrillation Awareness Day - Time to Spread the Message

Dear Readers

Welcome back to the latest issue of JAFIB. We are sure you are back to the grind from your summer vacations. September is the Atrial Fibrillation Awareness month. Heart Rhythm Society has officially launched a bigger campaign in promoting awareness of the disease across the world. The Global Atrial Fibrillation Alliance Foundation (www.global-af-alliance.org) continues its work on this patient-physician-industry partnership in multiple cities across the world. The second Saturday of every September has been commemorated as the **World AF Awareness Day**. This year it falls on the **14th of September**. Several cities have a wide range of activities including AF walk, run, yoga and town hall meetings on this day to spread the word on prevention and early recognition and treatment. We will have a full report of this exciting global event in our next issue. Feel free to check back our website on the 14th of September.

Another exciting event we just wrapped up was Kansas City Heart Rhythm Symposium (KCHRS). The 5th annual edition of KCHRS took place on August 17th and 18th in Kansas City, MO. This symposium serves the educational needs of health care professionals in the greater Midwest very effectively time and time again. The highlights of KCHRS are in a special report in this issue of JAFIB. A week later, Scripps Clinic had its annual AF Symposium in La Jolla. It was a perfect workshop that covered the entire spectrum of AF care delivery with a multipronged approach. Congratulations to both University of Kansas and Scripps Clinic for putting together such amazing symposia.

Coming to the science in this issue of the journal – we have exceptional featured reviews and original articles. Sharma et al have a wonderful article on the dual epidemic of heart failure and AF. A short communication from Chan et al outline the predictors of AF after the ablation of a typical atrial flutter and the relationship between these two arrhythmias in a systematic fashion. In their observations from a large stroke data base from UMDNJ, Haft et al showed that AF is commonly found in patients with ischemic stroke who have the clinical risk factors for stroke and AF may be the common mechanism whereby the stroke risk factors, which are also risk factors for AF, cause stroke. The presence of more than one of these risk factors or the addition of left atrial enlargement justifies long term monitoring to diagnose AF in patients with ischemic stroke who are in sinus rhythm. Alam et al present a nicely written article on the triad of Obesity-Diabetes-AF.

A good overview of the evolution of Hybrid strategies for AF ablation by Pison et al shows that when performed in

combination, both percutaneous and surgical approaches seem to be complementary as they overcome their mutual shortcomings. Several hybrid or convergent ablation strategies with the use of various energy sources have been described. Medium and long term results are encouraging, especially in challenging settings such as persistent AF and failed endocardial catheter ablations. Although many efforts have been directed to improve atrial fibrillation transcatheter ablation safety, thromboembolism to the brain remains one of the major complications. In fact several studies have confirmed occurrence of silent cerebral embolic lesions by post-procedure magnetic resonance imaging. A review from Gaita et al will focus on the possible mechanisms leading to silent cerebral embolism in the attempt to provide recommendations holding the potential to reduce the incidence of this clinically relevant complication.

Hiatal hernia (HH) causes protrusion of the stomach into the chest cavity, directly impinging on the left atrium and possibly increasing predisposition to atrial arrhythmogenesis. However, such association has not been fully explored. Roy et al explored if an association between HH and atrial fibrillation (AF) exists and whether there are age- and sex-related differences in their original article. Complex fractionated atrial electrogram (CFAE) ablation has been used over the last decade and has proven to be time consuming and vial analysis and documentation of the same has proven to be challenging. Therapies based on the CFAE ablation have been less reproducible due to the operator's subjective electrogram visual analysis and the difficult distinction between CFAEs really involved in AF perpetuation from other CFAE. In this issue of the journal Seitz et al demonstrated a better selectivity of a new automatic CFAE algorithm setting in order to better discriminate CFAEs really involved in AF perpetuation from other CFAE. Shah et al present a discussion on how early restoration and maintenance of sinus rhythm especially using novel approaches can influence the progressive nature of atrial fibrillation.

Berkowitsch et al explore the connection between AD and chronic kidney disease and present the state of the issues related to systemic anticoagulation and catheter based ablation therapy. Connexins 40 and 43, the major atrial gap junctional proteins, undergo considerable alterations in expression and localization in atrial fibrillation, creating an environment conducive to sustained reentry. It is well known that AF is initiated and/or maintained in this reentrant substrate. A review from Jennings et al throws light on connexin remodeling in the context of underlying mechanism and possible therapeutic target for atrial fibrillation. Hedna et al present a unique perspective to Atrial Fibrillation from a Neurologist and Cardiologist stand point. Their

review article focuses on the dynamic interplay of neurovascular and cardiovascular diseases in relation to AF, traditional and novel risk factors for AF leading to stroke, impact of AF on cognitive decline, and current upstream medical and surgical options for embolism prophylaxis.

Robotics in catheter ablation has been in place for more than a decade and there still seems to be significant issue with universal adaptation. In this issue Nolker et al discuss the differences in tissue injury and ablation outcomes in AF patients between manually operated vs. robotic catheters. Shen et al highlight the involvement of the atrial neural network in the “metastatic” progression of paroxysmal to persistent and long standing persistent forms of AF in their review article.

Enjoy the last few days of summer and we are sure you are ready for the Fall festivities. The 7th international symposium on interventional electrophysiology codirected by Saksena and LeWalter’s seems to be perfect curtain raiser for the Octoberfest in Munich starting September 18th.

Best Wishes



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