



Exploring Atrial Fibrillation Pathophysiology, Gender Differences and More.....

Dear Colleagues

Welcome to the May edition of JAFIB. Hope you had a wonderful learning time at the Heart Rhythm Society Annual Sessions in San Francisco. It was great to see a lot of you in person. On behalf of the journal and the entire electrophysiology community we want to congratulate and thank Drs. Hugh Calkins (Immediate Past President, HRS) and Richard Fogel (President, HRS) for their service, vision and leadership. The new ACC/AHA/HRS AF guidelines are out and it is probably worthwhile to review these.

In this issue we have several manuscripts that are thought provoking and provide solid review of many interesting topics in atrial fibrillation (AF). Eraldo Occhetta presented their prospective, randomized, cross-over, double-blinded RARE PEARL study that evaluated the role of ventricular rate stabilization feature in the single chamber pacemaker patients with permanent AF. In patients with permanent atrial fibrillation (AF) rate irregularity can cause symptoms and impair the pumping function of the heart. Ventricular pacing at a rate close to the mean spontaneous ventricular rate can result in a more stable ventricular rate. VRS seems to be preferred by a lot of patients however, this seems to increase the percentage ventricular pacing and its long term impact on ventricular function is yet to be assessed. Francesca Galati and group presented a fantastic paper that attempts to understand the pathophysiology of AF in post-menopausal women. This study suggests that in post-menopausal women atrial fibrillation could be promoted by the association of cholesteryl ester transfer protein (CETP) B2B2/AA genotype with higher triglycerides values. In their original article Sandor Kovacs and colleagues describe atrial stiffness as a measurable parameter to assess the LA function and potentially evaluate it going forwards.

Andreas Goette et al have an excellent review on the role of Calpains in the creation of atrionomyopathy that could potential lead to AF. Anne Curtis and group have presented a great review of the current state of AF ablation in women. Success rates for AF ablation are seems to be higher in earlier stages of the disease process, before atrial remodeling sets in. In order to have a comparable success rate of AF ablation in women, early referrals for ablation before they develop a high risk profile. This article also highlights the additional risk of vascular complications in women than their male cohorts.

Chris Liu wrote a nice review on the evolving role of Intracardiac echocardiography (ICE) in clinical electrophysiology. Integration of

ICE into the 3D mapping system has improved electrophysiologists' appreciation for anatomical correlates to various arrhythmias like VT. Potential role in Left Atrial Appendage Exclusion and Trans Aortic Valve Replacement (TAVR). Advances in volumetric 3D ICE imaging hopes to improve real-time visualization and potentially reduce need for fluoroscopy further. Claudio Tondo et al discuss the role of effective and continuous rhythm monitoring after AF ablation. Continuous rhythm monitoring over long periods of time is superior to intermittent recording using external monitors to detect the presence of AF episodes and to quantify the AF burden. With the new thinner and smaller subcutaneously implanted devices continuous AF monitoring is a reality and has come to be an attractive option. In particular, it is not known whether there is any critical value of daily AF burden that has a prognostic significance. This issue remains an area of active discussion, debate and investigation.

In his concise review Girish Nair described the role of the renin angiotensin system (RAS) in the etiopathogenesis of AF and appraises the current understanding of RAS antagonism, using angiotensin converting enzyme inhibitors (ACE-I), angiotensin receptor blockers (ARB) and aldosterone antagonists (AA), for prevention of AF. In a nice review article, Gregory Lip and colleagues discussed stroke prevention in AF, and the clinical impact of CKD and its implications for management. AF is often associated with an adverse impact on HRQOL. Improvement in HRQOL, with a secondary reduction of disability and health-care resource utilization, is one of the major therapeutic goals in the management of AF. Successful



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AF ablation is associated with significant long-term improvement in HRQOL irrespective of the type of AF. Jason Andrade presented a concise review of the impact of catheter ablation on HRQOL. John Clark and colleagues present their experience with catheter ablation with zero fluoroscopy approach in pediatric population. Even though it sounds like a daunting task they clearly demonstrate that effective use of other imaging modalities like transesophageal echo and 3D mapping systems should dramatically reduce or eliminate the need for fluoroscopy. I think this is a major step forwards in creating procedural environment that continues to depend less on

fluoroscopy. Josef Krautzner presented a brief review of the available contact force sensing ablation catheter systems and their role in tissue ablation especially in AF. These new technologies seem to hold a lot of promise for the future of AF ablation. We have a special feature in this issue in the form of a guest editorial by Abraham Kocheril on the role of right atrium in atrial fibrillation.

We wish you a great summer and a productive mid-year!!!

With Best Regards