PO-635-04

"FREEZE THE MOVING TARGET" - CRYOABLATION FOR ARRHYTHMIAS ARISING FROM THE RIGHT VENTRICULAR MODERATOR BAND AND PAPILLARY MUSCLE

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Background: The right ventricular moderator band and papillary muscles (RV MB-PM) are an uncommon source of ventricular arrhythmias (VA) and may present with hemodynamically unstable VA. Given its anatomy, sometimes it is challenging to achieve catheter stability.

Objective: To study procedural success using cryoablation for VA arising from RV MB-PM.

Methods: We reviewed our institutional VA ablation database during last 3 years to identify those in whom cryoablation was used to treat VAs arising from the RV MB-PM.

Results: Out of 521 VA ablations during this period, 5 patients underwent cryoablation of VA arising from the RV PM-MB. Three patients had structural heart disease with mean left ventricular ejection fraction (LVEF) of 44%. Two patients presented with VT storm, and others presented with increasing VA burden. Three patients had prior failed RF ablation and one ADE were experienced in 17.6% (9/51) of subjects with none related to HD Grid.

Conclusion: The results of this study support the utility of the Advisor™ HD Grid mapping catheter in generating LAT and voltage maps based on high-quality EGMs and for guiding efficient and effective ablation strategies to treat AFL.

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VENTRICULAR ARRHYTHMIA ABLATION WITHOUT FLUOROSCOPIC UTILIZATION - A SINGLE CENTER EXPERIENCE

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Background: Utilization of fluoroscopy is common practice for ventricular arrhythmia (VA) ablation, but its use can be associated with radiation induced morbidities to both the patient and providers. Intracardiac Echocardiogram (ICE) can be helpful to minimize radiation exposure while not compromising procedural safety.

Objective: To study feasibility of fluoroscopy free (FF) VA ablation using ICE.

Methods: We performed a retrospective analysis of our institutional data on VA ablation performed by three providers between August 2019 to October 2021 to analyze procedural success and safety.

Results: Among total 70 patients who underwent FF VA ablation, 40 were FF (VT=29, PVC=31). Intracardiac echocardiography (ICE) and 3-dimensional mapping were utilized for all cases. For left sided mapping and ablation, transeptal approach was utilized in 27 (45%) and retrograde aortic approach was used in 25 (41.6%). Radiofrequency ablation was used in all patients, and concomitant cryoablation was used in 2 (6.4%) patients who underwent PVC ablation. Acute procedural success (defined as elimination of the clinical VA) was 96.5% in VT group and 90.3% in PVC group. Among remaining 10 VA ablation patients, five patients converted to fluoroscopy use due to coronary angiography (VT=2, PVC=3) and three patients due to cryoablation (VT=1, PVC=2) due to ablation site in close proximity to conduction system or coronary artery. Among patients who had VT ablation, 3 had repeat VT ablation during follow up (271 days +/- 250) and zero patient among PVC ablation group needed repeat ablation during follow up (328 days +/- 235). Importantly, there were no procedure related complication in all FF VA ablation patients.