**THE FUTURE OF ACLS: IVABRADINE’S ROLE FOR THE TREATMENT OF VENTRICULAR ARRHYTHMIAS**

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**Background**

Ivabradine (IVA), an inhibitor of pacemaker “funny” current (If), is an attractive choice for the treatment of refractory ventricular arrhythmias (RVA) as it does not affect blood pressure or prolong QT interval. It’s efficacy in ventricular tachycardia (VT)/ventricular fibrillation (VF) has been demonstrated in several animal modelsand in human case reports with heart failure and catecholaminergic polymorphic ventricular tachycardia.1,2,3,4 It is hypothesized that If channels are upregulated in diseased myocardium.5,6,7 Furthermore, IVA has been shown to reduce VF propensity and time to onset of VF in the setting of acute myocardial infarction.3 We present a series of patients who required Ivabradine (IVA) for the treatment of RVA despite traditional medical therapies.

**Methods**

Three patients with RVA to standard therapies were identified and treated with IVA.

**Results**

**Pt 1:** 63M with ischemic cardiomyopathy admitted for refractory VF despite amiodarone, quinidine, and beta blocker. IVA 2.5mg BID was initiated with stabilization of the patient’s arrhythmia with resolution of RVA.

**Pt 2:** 61F admitted with cardiogenic shock secondary to Giant Cell Myocarditis complicated with VT/VF. IVA 2.5mg BID was initiated for persistent arrhythmia despite standard antiarrhythmic therapies with amiodarone and quinidine with resolution of RVA. IVA was up titrated to 5mg BID.

**Pt 3:** 58M with no significant medical history admitted with VF arrest. IVA 2.5mg BID was started for refractory VF despite medical therapy with amiodarone, quinidine, and procainamide with reduction of RVA.

All patients’ ventricular arrhythmias (Images A, C, E) were stabilized to sinus rhythm (Images B, D, F) with the addition of IVA to standard therapies (Figure 1).

**Conclusion**:

For RVA, IVA may be safe and necessary treatment option for rhythm stabilization and heart rate control. However, larger studies are required to assess the success of IVA in this population.

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