**CARDIAC RESYNCHRONIZATION THERAPY REDUCES VENTRICULAR HIGH RATE EPISODES BUT NOT ATRIAL ARRHYTHMIAS**

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Introduction: Cardiac resynchronization therapy (CRT) has been shown to reduce mortality in patients with underlying cardiomyopathies, although the mechanism for this reduction remains unclear. We sought to evaluate the influence of long-term CRT on overall arrhythmia burden.

Methods: Age and sex-matched patients with combined primary and secondary indications for ICD implantation were enrolled retrospectively. All subjects had an EF¡Ü35% and subjects with permanent atrial fibrillation were excluded. We examined the incidence of atrial high rate (AHR) and ventricular high rate (VHR) episodes in 42 patients (21 CRT and 21 dual chamber implantable cardioverter-defibrillators (DR ICDs)).

Results: The mean age was 70.7¡À9.9 years (3 female) and 68.6¡À12 years (5 female) in the CRT and DR ICD groups, respectively. Follow-up was over 5 years (2006-2010).There was no difference in the percentage of atrial pacing (CRT: 26.1¡À33% vs DR ICD: 33.0¡À40.5%; p=0.12) although the percentage of ventricular pacing was significantly higher in the CRT group (98.3¡À2.8% vs 26.3¡À42.3; p<0.01).The CRT group had a significantly higher number of AHR events compared with the DR group (20.3¡À67.1 vs 4.3¡À10.6; p=0.02). In addition, CRT was associated with a significant reduction in VHR episodes compared with the DR ICD group (3.5¡À9.5 vs 17.7¡À62.2; p=0.03).

Conclusion: The results demonstrate a significant reduction in VHR events in patients receiving CRT compared to those receiving DR ICDs suggesting that CRT is associated with a reduction in the burden of ventricular arrhythmias. We postulate that the reduction in ventricular arrhythmias was directly related to the high CRT pacing rate.