CARDIAC RESYNCHRONIZATION THERAPY BENEFITS PATIENTS EIGHTY YEARS OF AGE OR OLDER

ACC Oral Contributions
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Background: Clinical outcomes in cardiac resynchronization therapy (CRT) patients (pts) ≥80 y old have not been well-described.

Methods: To test the hypothesis that CRT benefits pts with advanced age, 502 consecutive pts ≥70 y old referred for CRT were studied, including 164 pts ≥80 y old (range 80-92) and 338 consecutive pts aged 70-79 y. All had LVEF≤35%, NYHA 2-4 heart failure, and QRS ≥120 ms. Survival was compared among 145 CRT-defibrillator (CRT-D) recipients aged ≥80 y, 19 pts ≥80 y old with unsuccessful LV lead placement who received an ICD alone, and 338 CRT-D pts 70-79 y old. A subgroup (n=153) had follow-up LV volumes and LVEF ≥6 mos after CRT-D.

Results: Baseline characteristics were similar regarding gender, renal function, medications, LVEF, NYHA class, QRS width, diabetes, atrial fibrillation, and ischemic heart disease (p>0.1) between CRT-D and ICD pts ≥80 y old. Over 43 ± 28 mos, CRT-D pts aged ≥80 y survived longer than ICD pts ≥80 y old (HR 2.9, 95% CI 1.5-5.6, p=0.002). There was no survival difference between CRT-D recipients aged ≥80 y and 70-79 y; this finding was retained after controlling for age, medications, diabetes, and LVEF. CRT-D pts ≥80 y old experienced significant improvement in LVEF (+10 ± 12%, p<0.001) and LVESV decrease (-23 ± 31 mL, p<0.001), similar to CRT-D recipients 70-79 y old.

Conclusions: CRT-D provides significant survival benefit and reverse remodeling in pts aged ≥80 y, similar to CRT-D pts 70-79 y old. These observations support the clinical use of CRT in pts with advanced age.