Abstract: P1535

Quality of life predicting long-term outcomes in cardiac resynchronization therapy patients

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Aims: The predictive value of quality of life (QoL) in cardiac resynchronization therapy (CRT) patients is not well understood. We aimed to assess the predictive role of baseline QoL on long-term heart failure (HF) or death events in mild HF patients enrolled in MADIT-CRT (Multicenter Automatic Defibrillator Implantation Trial with Cardiac Resynchronization Therapy).

Methods: A total of 1791 of 1820 patients had their QoL evaluated at baseline, using the EuroQol-5 Dimensions (EQ-5D) and the Kansas City Cardiomyopathy Questionnaires (KCCQ). Kaplan-Meier survival analyses and multivariate Cox models were utilized.

Results: Issues within any of the domains of the baseline EQ-5D questionnaire (mobility, self-care, usual activities, pain/discomfort and anxiety/depression) were associated with long-term mortality (median follow-up 5.6 years) (all p-values<0.05). Heart failure or death events were predicted by issues in baseline mobility (HR=1.41, p<0.05), usual activities (HR=1.41, p<0.05) and anxiety/depression (HR=1.21, p=0.05). The risk of HF events alone was significantly higher in patients with baseline mobility issues (HR=1.42, p<0.05), or usual activity (HR=1.35, p=0.05). Every 10% increase in the Visual Analogue Scale (0-100) was associated with an 8% lower risk of all-cause mortality (p<0.05), and a 6% lower risk of HF/death (p<0.05). Mobility issues also predicted echocardiographic reverse remodeling (-33.08ml vs. -31.17 ml, p<0.05). Using the KCCQ questionnaire, patients within the lower tertiles of the clinical summary or physical limitations score had a significantly higher risk of long-term HF or death (p<0.05). Conclusions: In mild HF patients enrolled in MADIT-CRT, multiple baseline QoL questionnaire domains are predictors of echocardiographic remodeling, long-term all-cause mortality and HF events.