

 **CARDIAC ARRHYTHMIAS**

**LEFT VENTRICULAR DYSSYNCHRONY, LEFT VENTRICULAR LEAD POSITION AND MYOCARDIAL SCAR: LONG-TERM SURVIVAL PREDICTORS OF ISCHEMIC HEART FAILURE PATIENTS AFTER CARDIAC RESYNCHRONIZATION THERAPY**

ACC Poster Contributions  
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Objectives: The present study aimed to evaluate the incremental prognostic value of LV dyssynchrony, LV lead position and myocardial scar on long-term prognosis of ischemic heart failure (HF) patients receiving cardiac resynchronization therapy (CRT).

**Methods:** A total of 397 ischemic HF patients underwent echocardiographic evaluation before CRT implantation, including the assessment of LV radial dyssynchrony, the latest activated myocardial segment and myocardial scar by using 2-dimensional speckle tracking imaging. The LV lead position assessed by chest-X-ray and was scored as “concordant” when it matched with the latest activated segment. Long-term follow-up included cardiovascular mortality and hospitalizations for heart failure.

**Results:** During 21 months follow-up, 88 (22%) patients died. Significant LV radial dyssynchrony at baseline (hazard ratio [HR]: 0.996,  $p=0.015$ ), concordant LV lead position (HR: 0.582,  $p=0.026$ ) and myocardial scar of the segment targeted by the LV lead (HR: 0.954,  $p<0.001$ ) were independent predictors of cardiovascular mortality. Myocardial scar of the targeted segment (Model 3) showed a significant incremental prognostic value over the combination of concordant LV lead position (Model 2), LV radial dyssynchrony and conventional clinical and echocardiographic variables (Model 1) (Figure).

**Conclusions:** Long-term prognosis of ischemic HF patients treated with CRT is strongly influenced by the presence of myocardial scar at the targeted segment.

