

Imaging

ECHOCARDIOGRAPHIC ASSESSMENT OF LEFT VENTRICULAR ROTATION AS A PREDICTOR OF ADVERSE EVENTS IN HYPERTROPHIC CARDIOMYOPATHY

ACC Moderated Poster Contributions
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We aimed to define predictive factors for major cardiovascular (CV) adverse events (MACE)- death, CV hospitalization or NYHA class deterioration in adult HCM patients over 1-year using speckle tracking echocardiography (STE).

Methods: We studied 56 HCM patients (22 female), age 58 ± 13 , with preserved ejection fraction (EF)= $58 \pm 7\%$. LV outflow obstruction was present in 12,5% and diastolic dysfunction (DD) in all pts (pseudonormal -20/56, restrictive - 6/56). Echo assessment included extended diastolic panel using TDE and STE (longitudinal strain/strain rate and radial, circumferential strain, LV rotation). At month 12 we recorded clinical events. Uni- and multivariate regression was used to identify MACE predictors.

Results: During follow-up (360 ± 62 days) 1 subject died of SCD (2%), but CV hospitalizations were frequent (19/56 pts, 18%) mainly due to arrhythmia (6/19 pts), ACS or CHF. NYHA deterioration by at least 1 class was observed in 16 pts. Univariate analysis showed a relationship between hospitalization and: concomitant ischemic heart disease ($p=0,034$), longitudinal strain ($p=0,034$) and apical LV rotation ($p=0,048$). Multivariate linear regression model identified apical rotation ($p=0,048$) as the independent predictor of hospitalization. No factors predicted NYHA class deterioration.

Conclusions: Novel echocardiographic parameter - STE based apical LV rotation but not demographic, laboratory, functional or standard echo data predicts 1-year adverse events in adults with HCM.

