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Imaging

DECREASED EXERCISE CAPACITY AND ISCHEMIA ON STRESS TEST ARE MORE IMPORTANT THAN CO-MORBIDITIES IN PREDICTING LONGEVITY

Poster Contributions

Poster Sessions, Expo North

Sunday, March 10, 2013, 3:45 p.m.-4:30 p.m.

Session Title: Imaging: Echocardiographic Imaging of Patients with CAD: I

Abstract Category: 18. Imaging: Echo

Presentation Number: 1267-326

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Background: We have investigated an association between co-morbidities, exercise capacity, ischemia on stress test and long-term outcomes in patients undergoing standard upright (EST) vs. dobutamine with (DVST) or without (DST) supine bicycle stress echocardiography for chest pain evaluation.

Methods: Records of 406 patients referred for chest pain evaluation at a single tertiary care center were reviewed. Demographic, clinical data, and outcomes were collected (Figure). Mean follow-up length was 35+/-0.3 months. ANOVA, chi-square, and logistic regression analyses were used. Study was approved by the IRB.

Results: Inducible ischemia ($p=0.109$) and inability to exercise ($p=0.009$) were associated with increased long-term mortality. The highest mortality was seen in patients with ischemia and inability to exercise ($p=0.0027$). In multivariate logistic regression analysis, when exercise capacity was factored in (Figure, HR 0.1 per 4 METs, 95% CI 0.02-0.5, $p=0.0037$), co-morbidities and ischemia on stress testing were not predictive of adverse outcomes. Type of stress test was not an important predictor of prognosis, provided 4 METs were achieved ($p=NS$).

Conclusion: Patients unable to exercise and ischemia on stress test have poor prognosis. Ability to perform at least moderate upright exercise, regardless of the presence of ischemia, is associated with significantly improved mortality. Type of exercise appears to be less important than exercise capacity.

