P2135 : Stress echocardiography for risk stratification of patients following coronary bypass surgery

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Objectives: To assess the prognostic value of stress echocardiography following coronary bypass surgery.

Methods: We evaluated 451 patients (360 men; age 65±10 years) who underwent stress echocardiography with exercise (n=33), dipyridamole (n=319) or dobutamine (n=99) after a median of 69 months from coronary bypass surgery. Patients were followed-up for the occurrence of hard (death, infarction) and major events (death, infarction, late [>3 months] revascularization).

Results: Ischemia at stress echo was assessed in 185 (41%) patients. During a median follow-up of 25 months, there were 119 events (56 deaths, 17 myocardial infarctions, and 46 late revascularizations). Additionally 55 patients underwent early [<3 months] revascularization and were censored. Independent predictors of hard events were age (HR=1.06; 95% CI=1.03-1.10; p<0.0001), and peak wall motion score index (HR=3.36; 95% CI=1.85-6.11; p<0.0001). 4-year major event rate was 26% in patients with and 17% in those without ischemia (p=0.44) (Figure). Independent predictors of major events were age (HR=1.03; 95% CI=1.01-1.06; p=0.002), ischemia at stress echo (HR=1.73; 95% CI=1.20-2.49; p=0.004), and resting wall motion score index (HR=1.82; 95% CI=1.20-2.77; p=0.005). 4-year major event rate was 40% in patients with and 26% in those without ischemia (p=0.02) (Figure).

Conclusion: In patients with previous coronary bypass surgery, ischemia at stress echo is a multivariable indicator of future major events. However, it is unable to predict hard events.