Background: When wall motion abnormality is the diagnostic end-point, concomitant anti-ischemic therapy heavily modulates the prognostic value of dipyridamole echo test (DET). Coronary flow reserve (CFR) was added to wall motion in dual imaging DET. Aim: to determine whether antianginal medications affect the prognostic value of Doppler echocardiographic derived CFR in patients with known or suspected coronary artery disease undergoing DET.

Methods: We evaluated 1506 patients (911 males; 64±11 years) who underwent high dose dipyridamole (0.84 mg/kg over 6') stress echo with CFR evaluation of LAD by Doppler. Six-hundred fifty eight (44%) patients were on antiischemic therapy at time of testing.

Results: Mean CFR was 2.3±0.6. During a median follow-up of 42 months, 74 events occurred: 24 deaths and 50 nonfatal myocardial infarctions. Survival was highest in 955 patients with normal (>2.0) CFR and lowest in 951 patients with abnormal CFR (93% vs 63%, p= 0.0001). Concomitant therapy did not affect prognostic value of CFR (figure). At multivariable analysis, angina during DET (hazard ratio [HR] 2.6, 95% CI 1.6 – 4.4, P= .000), WMSI at peak stress (hazard ratio [HR] 2.2, 95% CI 1.2 – 3.9, P= .007), DET positivity for regional wall motion abnormalities (hazard ratio [HR] 6.4, 95% CI 3.5 – 11.7, P= .000), a CFR of LAD <2 (hazard ratio [HR] 2.4, 95% CI 1.4-4.1, P =.001), were independent prognostic predictors of hard cardiac events.

Conclusion: Ongoing antiischemic therapy at the time of testing does not modulate the prognostic value of CFR.