Normal Stress Echo Good for 18 Months in Patients With Prior MI

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New Orleans — The “warranty time” of a normal stress echocardiogram in patients with a history of MI is about 18 months, Sripal Bangalore, M.D., reported at the annual scientific sessions of the American Heart Association.

At that point, it’s a good idea to obtain a repeat stress echo examination for risk stratification, said Dr. Bangalore of St. Luke’s-Roosevelt Hospital, New York City.

“Up until about 18 months, the event rate is pretty benign, but after that, it exponentially rises,” he explained.

Stress echocardiography is a well-established tool for risk stratification in patients with known or suspected coronary artery disease. But the reliability and durability of a normal stress echo exam in the high-risk setting of patients who have already had an MI has not been clearly defined.

To investigate this issue, Dr. Bangalore evaluated 251 consecutive patients with a history of nonreentrant acute MI who were referred for stress echocardiography. The average time since the MI was 6.5 years, with a maximum of 12 years. Dobutamine stress echocardiography was used in 83% of the patients, and the patients who were remaining were stressed on a treadmill.

Overall, 64% of patients were classified as low-risk on the basis of a normal stress echo exam free of reversible ischemic left-ventricular-wall motion abnormalities. During the full follow-up, which lasted a mean of 2.9 years and a maximum of 5 years, these low-risk patients had a rate of another MI or cardiac death of just 0.8% per year, compared with 4.2% per year in the remaining patients with an abnormal stress echo exam.

No cardiac end points occurred in the normal stress echo group during the first 18 months of follow-up, thus the approximate 18-month “warranty time”.

Of the patients with an abnormal stress echo exam, 30 underwent coronary artery bypass graft surgery, and 20 had a percutaneous coronary intervention during the full follow-up, compared with just 1 and 13, respectively, with a normal stress echo.

Standard cardiovascular risk factors did not predict which patients were likely to have another cardiac event, and this finding underscored the value of stress echocardiography in the high-risk context of a prior MI.

Similarly, stress ECG parameters were unable to distinguish those patients who had a cardiac event during follow-up from the ones who didn’t, he said.