Left Anterior Fascicular Block Voids Exercise ECG Results

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DENVER – The presence of left anterior fascicular block on a resting ECG indicates an ECG exercise stress test will have significantly diminished diagnostic accuracy, according to a retrospective study.

Thus, finding the resting ECG warrants giving serious consideration to adding an imaging modality such as single-photon emission computed tomography (SPECT) myocardial perfusion imaging to the patient’s exercise stress test, Dr. Tarek M. Mousa said at the meeting.

He presented a retrospective study of 1,401 patients who underwent both a maximal treadmill exercise stress ECG test and SPECT myocardial perfusion imaging in search of inducible myocardial ischemia. In all, 62 patients (4.4%) had left anterior fascicular block (LAFB) on their resting ECG, including 24 who had both LAFB and right bundle branch block.

The exercise ECG stress test showed greatly reduced sensitivity for myocardial ischemia in patients with LAFB on their resting ECG: 39% as compared with 70% in the 1,341 patients without LAFB.

On the other hand, a finding of greater than 1 mm of exercise-induced ST-segment depression in at least two contiguous leads had significantly greater specificity as an indicator of inducible myocardial ischemia when it occurred in the setting of LAFB: 96% as compared with 79% in controls, added Dr. Mousa of New York Hospital Queens in Flushing.

The presence or absence of right bundle branch block in patients with LAFB on their resting ECG did not affect the diagnostic accuracy of their ECG exercise stress test.