

Ischemic Cardiopathy

Diagnostic Value of Myocardial Perfusion SPECT with Dipyridamole in a Female Population

Juan A. Pérez-Iruela, Purificación Pastor, Luis Lumbreras, Ana M. Martín, Francisco J. Ruiz, Ángel Posadas, Carmen Puentes

Background

Exercise stress scintigraphy is a safe procedure widely used for the diagnosis of ischemic heart disease. Pharmacologic stress testing is an important alternative. The delayed presentation of ischemic heart disease in women, together with a lower diagnostic accuracy of exercise stress testing in this population, has generated interest in the potential benefits provided by myocardial perfusion imaging tests.

Objective

To determine the diagnostic value of myocardial perfusion images with ^{99m}Tc-tetrofosmin in a one day protocol after a pharmacologic stress with dipyridamole in a female population, and the relation with the coronary territories using coronary angiography as a reference technique.

Material and Methods

In total, 149 clinical charts of women with suspected ischemic heart disease undergoing myocardial perfusion imaging tests and coronary angiography were retrospectively analyzed.

Results

Sensitivity and specificity were 94% (93.47%-94.53%) and 82% (80.94%-83.06%), respectively. Values of sensitivity and specificity according to coronary territories were 71.62% (70.88%-72.36%) and 76% (75.27%-76.73%) for the left anterior descending (LAD) artery, 69.09% (68.11%-70.07%) and 76.84% (76.26%-77.42%) for the left circumflex (LCx) coronary artery, and 87.23% (86.11%-88.36%) and 74.51% (73.97%-75.05%) for the right coronary artery (RCA), respectively.

Conclusion

Myocardial perfusion scintigraphy with ^{99m}Tc-tetrofosmin and dipyridamole using a one day stress-rest protocol has high sensitivity and specificity for the diagnosis of ischemic heart disease in women.