

## Predictive value of severe ischemia imaging with spect stress test tetrofosmine myocardial perfusion. Two different images

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**Introduction:** Ischemic heart disease is a heart disease that occurs when the arteries supplying blood to the heart become narrowed or blocked, which reduces the flow of blood and oxygen to the heart and can cause chest pain (angina), myocardial infarction. Coronary artery disease (CAD) remains the leading cause of death in adults in Mexico and the western world. Risk factors for the disease include smoking, high blood pressure, high blood cholesterol levels, diabetes, obesity, physical inactivity and family history of heart disease. Spect-gated myocardial perfusion studies play a very important role in the diagnosis of CAD. Analysis of these images provides information that is strong evidence of coronary artery disease.

**Case 1:** Male, with diabetes mellitus, high blood pressure, dyspnea, exercise intolerance, angina, referred for acute ischemic syndrome, unstable angina, and suspected ischemia.

**Case 2:** 57-year-old male, sedentary, high blood pressure, chronic coronary syndrome, dyspnea and exercise intolerance, angina, dyslipidemia, overweight. Referred for chronic coronary syndrome and suspected ischemia.

**Material and method:** In both cases a stress test myocardial perfusion spect with 99mTc. With tetrofosmin, was performed.

**Results:** In both cases with risk factors present and suspicion of ischemia. Also in both cases during the stress test they reached 61%, with evident dyspnea, angina and ST negative in the stress electrocardiogram (EKG).

The stress test myocardial perfusion spect with 99mTc. With tetrofosmin showed.

In case 1, the images showed evident severe anteroapical and septal ischemia.

In case 2, which we observe homogeneous perfusion in both phases of the stress test myocardial perfusion-spect with a false negative image of ischemia, or a balanced ischemia image, which are observed when there is a multi-vessel disease and severe ischemia.

**Conclusion:** Myocardial perfusion-spect studies continue to be used as a noninvasive functional diagnostic technique for arterial coronary diseases. And they have enormous predictive value for ischemic events. Influencing the selection for invasive procedures such as angioplasty or coronary artery bypass surgery to restore blood flow to the heart. Or medical treatment, in order to establish a timely, optimal treatment to the patient and improve their survival and quality of life.

### Biography

Amparo Pineda Tovar is a medical doctor with over fifteen years of experience in Nuclear Cardiology medicine additional studies and coursework's in several medical topics. A speciality in Nuclear Medicine and several coursework's in Radiological Protection at the National Institute for Nuclear Research (ININ), México, Medical Scintigraphy, Cardiological SPECT Image and Cardiological PET.