

False negative image for ischemia with spect myocardial perfusion with 99mtc. Tetrofosmin, with suspected severe ischemia

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Abstract

Coronary artery disease (CAD) is the cause of death in adults in Mexico and in the world. Its timely detection allows to establish an optimal treatment. SPECT-GATED myocardial perfusion studies play an important role in its diagnosis, with them it is possible to analyze coronary perfusion, mobility and thickening of the walls of the left ventricle. Those that are strong evidence of coronary artery disease. Hypertrophy of the left ventricle is dilation and thickening (hypertrophy) of the left ventricle walls. Left ventricular hypertrophy is more common in people who have uncontrolled high blood pressure.

In this case Interesting

Female patient, 64 years, DM2, 30 years of evolution. Stress angina 8 months ago, shortness of breath, tiredness, chest pain, dizziness. Calcium Score: 3748 AU, LVEF: 68%, Mild mitral insufficiency, mild mitral stenosis, sent to perform myocardial perfusion protocol-SPECT.

Material and method: SPECT Myocardial Perfusion with 99mTc. Tetrofosmin showed perfusion images without evidence of perfusion defect or ischemia. But with transient dilation and pulmonary uptake. Abnormal radioisotope uptake in lungs.

Cardiac catheterization showed

TCI: trifurcated, short, without significant angiographic lesions. DA: maximum narrowness 90% in the proximal segment. First diagonal branch: 90% ostio-proximal lesion. Intermediate branch: vessel less than 2mm, ostioproximal 90% lesion. CX: 75% eccentric lesion in the distal segment, first marginal obtuse branch with 75% ostial lesion. CD: posterior descending with 75% lesion in the middle third.

Conclusión: Myocardial-SPECT perfusion studies are used as a non-invasive functional enriquecido for diagnosing coronary artery diseases. And they have enormous predictive value for ischemic events. Influencing the selection for invasive procedures or medical treatment, in order to establish a timely, optimal treatment for the patient and improve their survival

False negative results can be caused by multiple vessel disease or severe ischemia as in this case. In which we observed a homogeneous perfusion in both phases of the myocardial-SPECT perfusion study, there are no areas with lesions that suggest ischemia or infarctions. Most of the time, images with thickened walls suggestive of concentric type hypertrophy are observed. However, there is transient dilatation of the LV cavity, usually greater than 1.20, dilatation of the LV in both phases of the study that suggest the presence of severe ischemia.

It is very important to evaluate the risk factors (diabetes mellitus, high blood pressure, obesity, lifestyle, sedentary, smoking, obesity, hipercolesterolemia and patient symptoms).

Biography

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