

Summary

Significance of ^{99m}Tc -Labeled Perfusion Agents in the Simultaneous Assessment of Myocardial Perfusion and Cardiac Function

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Simultaneous assessment of left ventricular myocardial perfusion and systolic function was accomplished by utilizing ECG-gated myocardial perfusion SPECT. This development in nuclear cardiology will be attributed to the recent advances in new ^{99m}Tc -labeled perfusion agents, multi-detector SPECT system and software for automatic edge-detection of the left ventricle. In this article, we described about the clinical utilities of this method in detecting “hibernating

myocardium,” severe coronary artery disease patients with exercise-induced LV dysfunction, in predicting functional recovery after reperfusion therapy for acute myocardial infarction patients and in diagnosing patients with right heart diseases.

Key words: ^{99m}Tc -labeled perfusion agents, ECG gated myocardial perfusion SPECT, Hibernating myocardium, Acute myocardial infarction.