

## The value of Tc-99m MIBI SPECT during isosorbide dinitrate infusion in assessment of viable myocardium in patients with myocardial infarction

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Tc-99m MIBI myocardial SPECT has shown promise for evaluation of coronary artery disease. But its role in predicting myocardial viability is still under investigation. The purpose of this study was to evaluate the value of Tc-99m MIBI myocardial SPECT during isosorbide dinitrate (ISDN) infusion in the assessment of myocardial viability. Thirty-seven patients with previous myocardial infarction (the infarct age ranged from  $\leq 30$  days to 900 days) were studied, of them 13 patients had Tc-99m MIBI studies before and after coronary artery bypass grafting (CABG). The results showed that out of 134 segments with hypoperfusion at resting SPECT, 56 segments (41.8%) had an increase in Tc-99m MIBI uptake during ISDN infusion. Among them, 17 segments (30.4%) were normalized, 6 segments (10.7%) were significantly improved and 33 segments (58.9%) were improved. The degree of improvement in perfusion was related to the age of the myocardial infarction. In 13 patients with CABG, of 31 segments with improvement in perfusion post CABG, 25 segments (80.6%) showed perfusion improvement during ISDN infusion, and of 28 segments with improved wall motion post CABG, 23 segments (82.1%) showed improvement in perfusion during ISDN infusion. Tc-99m MIBI SPECT during ISDN infusion may therefore be a useful approach for assessing myocardial viability.

**Key words:** myocardial viability, myocardial infarction, Tc-99m MIBI SPECT, isosorbide dinitrate