

Low rate of early revascularization following myocardial perfusion scintigraphy

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Background

Non-invasive cardiac imaging is widely used in coronary artery disease, but its effect on subsequent patient management is not well documented. Previous studies have shown a modest impact on clinical management of US patients referred to cardiac imaging. European guidelines recommend that patients with stable angina with >10% ischemia of the left ventricle should receive invasive revascularization. The aim was to examine short-term cardiac revascularization rates after myocardial perfusion scintigraphy (MPS) in a Swedish population.

Methods

We assessed early revascularization rates in patients admitted to MPS 2004-2007 in Malmö. Early revascularization was defined as percutaneous coronary intervention or coronary artery bypass grafting within 5 months of the MPS. Patients were categorized into five groups (“non-ischemic”, “probably non-ischemic”, “equivocal”, “probably ischemic” and “ischemic”) according to the final, clinical report of the study. Patients regarded as “ischemic” were further categorized as <10% or >10% ischemia, based on automatic measurements from the software package EXINI Heart™ (EXINI Diagnostics AB, Lund, Sweden)

Results

In total, 4289 patients were included. 3650 patients were regarded as “non-ischemic”, 1 as “probably non-ischemic”, 2 as “equivocal”, 93 as “probably ischemic” and 543 as “ischemic”. 5 months after the MPS, 4.9% of the patients had undergone revascularization therapy. For patients regarded as non-ischemic, 1.0% received early revascularization. For patients with ischemia, 30.4% were revascularized. The numbers for “probably non-ischemic”, “equivocal” and “probably ischemic” were 0, 0, and 8.6%, respectively. 244 of the ischemic patients had <10% ischemia and 299 had >10% ischemia. In the former group, 23.8% received early revascularization and 35.8% in the latter.

Conclusion

The rate of revascularization increased in proportion to test abnormality findings. It was unusual with early revascularization in patients with no ischemia on MPS. However, only about one third of patients regarded as having ischemia on MPS, with ischemic extent >10% of the left ventricle, received early revascularization.

