Summary

Detection of Culprit Lesion in Patients with Unstable Angina Pectoris
by Using ATP Thallium-201 Myocardial SPECT

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The purpose of this study is to determine the diagnostic accuracy for detection of culprit lesions in patients with unstable angina. Both ATP 201Tl SPECT and coronary angiography were performed in 51 patients with unstable angina pectoris within a week since the last attack. SPECT images were divided into 17 segments and the regional uptakes were scored semiquantitatively (0 = normal to 3 = no activity) and compared with the coronary angiographic findings. ATP 201Tl SPECT revealed decreased uptakes in 54 of 56 culprit lesions. The sensitivity, specificity and accuracy for detection of culprit lesions were 96.4%, 89.5% and 92.4%, respectively. Although adverse effects during ATP administration were complicated in 28 (54.9%) patients, all the complications were mild and resolved within two minutes. ATP 201Tl SPECT is a sensitive and reliable method for detecting culprit lesions and can be performed safely even at acute phase in patients with unstable angina pectoris.

Key words: Unstable angina pectoris, 201Tl, SPECT, Diagnostic accuracy, Adenosine-5’-triphosphate (ATP).