

Summary

The Usefulness of ^{123}I -BMIPP Myocardial SPECT in Diagnosis for Silent Myocardial Ischemia Induced by Vasospasm

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This study was designed to evaluate the clinical usefulness of ^{123}I -BMIPP myocardial SPECT in patients with silent myocardial ischemia induced by vasospasm. Ultrasonic echocardiography (UCG), Holter electrocardiogram recording (Holter ECG), exercise ^{201}Tl myocardial SPECT (EX-Tl) and rest ^{123}I -BMIPP myocardial SPECT (BMIPP) were performed in 8 patients with asymptomatic vasospasm without history of myocardial infarction. The sensitivity of each modality in detecting coronary artery spasm was 37.5% (3 of 8 cases) for UCG, 37.5% (3 of 8 cases) in Holter ECG, 25.0% (2 of 8 cases) in Ex-Tl, 62.5% (5 of 8 cases) on initial BMIPP images and 75.0% (6 of 8

cases) on delayed BMIPP images. Severity of regional left ventricular wall motion abnormality in UCG correlated with the severity of regionally decreased tracer uptake in BMIPP. The washout rate of BMIPP was 18.7 ± 2.4 in normal controls, 32.4 ± 5.9 in asymptomatic vasospasm, and 38.2 ± 4.0 in asymptomatic vasospasm with abnormal left ventricular wall motion. It was suggested that ^{123}I -BMIPP myocardial SPECT might be useful for assessing asymptomatic vasospasm.

Key words: ^{123}I -BMIPP, Silent myocardial ischemia, Cohn type I, Vasospasm, Myocardial SPECT.