

Summary

Two Cases of Microvascular Vasospastic Angina —Usefulness of ^{99m}Tc -Tetrofosmin Myocardial SPECT in Clinical Diagnosis—

Kazuki ITO*, Hiroki SUGIHARA**, Kan ZEN*, Takatou HIKOSAKA*, Yoshihiko ADACHI*,
Satoshi YONEYAMA*, Shuuji KATOH* and Akihiro AZUMA***

**Department of Cardiology, Murakami Memorial Hospital, Asahi University*

***Department of Radiology, Kyoto Prefectural University of Medicine*

****Second Department of Medicine, Kyoto Prefectural University of Medicine*

Case 1 involved a 52-year-old man with angina chest pain at rest and case 2 involved a 63-year-old woman with chest oppression at rest. An electrocardiogram (ECG) showed negative T wave in III and aV_F leads in case 1, and complete atrioventricular block and ST segment depression in II, III, aV_F, and V₅₋₆ leads in case 2. In both cases, ^{99m}Tc -tetrofosmin myocardial SPECT showed reduced uptake in the inferior and posterior wall. Although both patients' left coronary arteriographies were normal, right coronary arteriographies revealed severely delayed filling of contrast medium without significant narrowing of epicardial coronary arteries, suggesting microembolism or microvascular vasospasm. An intracoronary infu-

sion of isosorbide dinitrate did not improve the delayed filling of contrast medium or ST segment depression on ECG. Soon after intracoronary infusion of diltiazem in case 1 and nicorandil in case 2, coronary arterial flows were normalized, chest symptoms disappeared, and ECG findings were normalized. The next day, both patients' ^{99m}Tc -tetrofosmin myocardial SPECT showed normal uptake. These findings suggest that myocardial ischemia in these cases might be explained as having been caused by microvascular spasm.

Key words: Microvascular vasospastic angina, Microvascular spasm, Delayed filling of contrast medium, ^{99m}Tc -tetrofosmin, Myocardial ischemia.