

A case of double cancers with myocardial metastasis mimicking acute myocardial infarction both on an electrocardiogram and on Tc-99m-MIBI myocardial SPECT

Shota KONISHI,* Tohru KOJIMA,** Kenji ICHIYANAGI,*** Seigo KINUYA,* Kunihiro YOKOYAMA,* Junichi TAKI,* Kenichi NAKAJIMA,* Takatoshi MICHIGISHI* and Norihisa TONAMI*

**Department of Nuclear Medicine, Kanazawa University School of Medicine*

***Department of Internal Medicine and ***Department of Radiology, Fukui Prefectural Hospital*

We report a rare case of double cancers with myocardial metastasis presenting acute myocardial infarction (AMI)-like findings both on an electrocardiogram (ECG) and on Tc-99m-MIBI myocardial SPECT. The ECG showed abnormal Q-waves and ST-segment elevation in leads V₁–V₄, and Tc-99m-MIBI SPECT showed a photon deficient area in the anteroseptum. These findings were suggestive of AMI, but the patient had been simultaneously suffering from two adenocarcinomas, which were lung cancer and gastric cancer, and consecutive ultrasonic cardiography (UCG) demonstrated a growing mass lesion in the septal aspect of the left ventricle. After a month he died of severe heart failure. The histological diagnosis of a specimen of the cardiac mass lesion was invasive adenocarcinoma infiltrating to the heart, which revealed that the myocardial metastasis had mimicked AMI. This case shows that it is difficult to distinguish between myocardial infarction and myocardial metastasis with myocardial perfusion SPECT. It is necessary to consider the possibility of myocardial metastasis when a patient with malignancy presents AMI-like findings.

Key words: myocardial metastasis, AMI-like findings, ECG, Tc-99m-MIBI