Exploring a technique for reducing the influence of scattered rays from surrounding organs to the heart during myocardial perfusion scintigraphy with technetium-99m sestamibi and technetium-99m tetrofosmin

Hajime Monzen,* Masatake Hara,** Makoto Hirata,* Akira Nakanishi,* Makoto Ogasawara,*
Takatoshi Suzuki,* Tamie Sato,** Hisashi Shimoyama,** Futoshi Tadehara,***
Kunihiko Hirose** and Rumio Yuki*

*Department of Radiology, Otsu Red Cross Hospital
**Department of Cardiology, Otsu Red Cross Hospital
***Department of Internal Medicine, Kure Kyosai Hospital

We have devised a new position (Monzen position) which can suppress the influence of scattered rays from surrounding organs (liver, etc.) when conducting myocardial imaging. Unlike the conventional techniques, which require a waiting period of 30–60 minutes before imaging can be started after the infusion of technetium-99m sestamibi or technetium-99m tetrofosmin, this position allows single-photon emission tomography to be started about 5–10 minutes after the infusion of the tracer. Therefore, with this technique the total time required for imaging is reduced and consequently the physical and mental burden of the patient is also reduced. Furthermore, the number of patients who can receive this test at any facility can be increased. This position may also be applicable in myocardial scintigraphy using some other tracers.

Key words: single-photon emission tomography, technetium-99m sestamibi, technetium-99m tetrofosmin, body position, scattered rays