Myocardial Imaging with 201 Thallium in Myocardial Ischemic Cases with Complete Left Bundle Branch Block and Pacemaker Rhythm

*Department of Circulatory Dynamics, **Department of Nuclear Medicine,
The Center for Adult Diseases, Osaka

Three patients with complete left bundle branch block and six patients with pacemaker rhythm were studied.

In CLBBB group, one patient had a episode of transmural myocardial infarction. We found a localized decrease of radioisotope uptake in all patients.

In pacemaker rhythm group, two patients had a episode of transmural myocardial infarction, one had a episode of subendocardial infarction and three patients had a anginal chest pain, which were diagnosed by ECG before pacemaker implantation.

To detect a transmural myocardial infarction in patients with the presence of abnormal electrical activation, such as CLBBB, WPW syndrome and pacemaker rhythm, many electrocardiographic criteria have been described. Although these criteria are very troublesome. We discuss the relationship between myocardial imaging and ECG. It is concluded that myocardial imaging is helpful to diagnose a transmural myocardial infarction in patient with the presence of abnormal electrical activation.

Study on Myocardial Scintigraphy in Patients with Myocardial Infarction. (V)
Comparison of Regional Myocardial Detection by Thallium-201 with Left Ventricular Motion by Biplane Cineangiography

*Department of Internal Medicine, Hyogo College of Medicine, Hyogo
**Department of Radioisotope, Hyogo College of Medicine, Hyogo

Myocardial scintigraphy was performed after intravenous injection of Thallium-201 at rest in 31 patients with myocardial infarction and the results were compared with left ventricular cineangiographic findings. Each finding was interpreted independently by each observer. In 31 patients, 18 patients had anteroseptal myocardial infarction and 13 patients had inferior myocardial infarction.

In the patients with anteroseptal myocardial infarction, 18 patients had anterior image defects, 18 patients septal image defects, 14 patients apical image defects, 3 patients lateral image defects and 3 patients apico-inferior image defects. On the other hand, 15 patients had anterior abnormal motion in the left ventriculography, 6 patients septal abnormal motion, 17 patients apical abnormal motion, 3 patients lateral abnormal motion and 4 patients inferior abnormal motion.

In patients with inferior myocardial infarction, 12 patients had inferior and posterior image defects. On the other hand, 11 patients had inferior abnormal motion in the left ventriculography, 4 patients posterior abnormal motion and 5 patients apical abnormal motion.

The area of Thallium-201 image defect in anterior, lateral and inferior region corresponded with the area of left ventriculographic abnormal motion in 83 percent, 93 percent, 67 percent and 87 percent, respectively.

However, the area of septal and posterior image defects corresponded with the area of ventriculographic abnormality in only 33 percent.