Summary

The Diagnostic Value for Ischemic Heart Disease of Thallium-201 Myocardial Scintigraphy by Intravenous Infusion of SUNY4001 (Adenosine) —The Report of Clinical Trial at Multi-Center: Phase III—

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With two hundreds and seven patients unable to exercise adequately, the diagnostic accuracy and adverse reaction of 201 Tl myocardial scintigraphy with the pharmacologic stress by SUNY4001 (adenosine) infusion were studied.

Adenosine was infused for six minutes at the rate of 120 µg/kg/min, and then 201 Tl was injected after three minutes from the start of infusion. The early and delayed images were obtained by SPECT imaging. According to angiography, 90% stenosis was defined as significant.

The sensitivity of detecting coronary artery disease was 87.1% and the specificity was 46.0%.

Adverse reactions occurred in 66.7% of the patients, most of which disappeared shortly with no need for treatment.

Major adverse reactions were chest pain/discomfort (30.4%), flushing/feeling of warmth (22.4%) and blood pressure decrease (17.4%).

Adenosine infusion caused slight decrease in blood pressure and increase in heart rate. These hemodynamic changes were resolved within several minutes from the termination of adenosine infusion.

We concluded that adenosine-201 Tl imaging is safe and useful to detect coronary artery disease in patients unable to exercise adequately.

Key words: Adenosine, 201 Tl, SPECT, Diagnostic accuracy, Ischemic heart disease.