
In order to evaluate the size and the degree of ischemia in right ventricular wall (RVW), stress SPECT with Tl-201 during exercise was performed in normal subjects and patients with right coronary artery disease (CAD).

The normal range was calculated as mean + 2 standard deviation of RV-LV curves of normal subjects. The size and the degree of ischemia of RVW were evaluated from RV-LV curves. Results were compared with coronary arteriography and ECG.


Dynamics of myocardial was observed in 12 normal cases and 12 patients with HCM by means of analysing thallium-201 myocardial scintigraphy using multigate method. Patterns of myocardial scintigram were divided into 20 frames by R-R interval. In LAO view, left ventricular wall was divided into 8 regions, and the changes of radioactivity in each region of 20 frames were analysed. The indices of amplitude (percent wall thickness), TPC (time to peak contraction) and TES (time to end-systole) were examined.

The percent values of amplitude in HCM group decreased significantly than those in control group, especially at regions of septal and inferior wall. The mean values of TPC (msec) in HCM group tended to be shorter at septal wall than that of control group, but the mean values of TES (msec) were ranged within normal value. These indices changed significantly in the cases with remarkable septal hypotrophy than in the others.

From these results, it was suspected that hypertrophic region of myocardium in HCM might have abnormal contraction.

USEFULNESS OF ECG-GATED 201TL MYOCARDIAL SCINTIGRAPHY (SPECT) IN THE ANALYSIS OF RVW. N.Akabane, M.Oshima, S.Sakuma, S.Yamamoto, N.Kawai, and I.Sotobata. Nagoya University, School of Medicine, Nagoya.

ECG gated 201TL myocardial SPECT was performed in the normal subjects and patients with HCM, and the thickness of the septum and posterior wall was measured and studied in comparison with the values measured in the echocardiography. The volume of the myocardium of the left ventricle was also computed. A short axis image of left ventricle was reconstructed from a transverse image and the diastolic image thereof was used to measure the thickness of the septum and the posterior wall. Comparison with the echocardiography revealed a correlation: the septum r=0.86, posterior wall r=0.73, septum/posterior wall ratio r=0.80. Measuring the thickness of the wall by ECG gated 201TL SPECT was considered useful. The low correlation of the posterior wall was presumably attributed to the question of absorption of RI and also to the question that the site of measurement is not necessarily the same for echocardiography and SPECT. The volume of the left ventricular myocardium was measured from the diastolic short axis image and the values measured were studied in comparison with the systolic and diastolic cardiac function computed by the cardiac pool scintigraphy.