1337 MORTALPHICAL EVALUATION OF LV BY TL-201 MYOCARDIAL SCINTIGRAPHY. H. Miyagase, H. Adachi, F. Takeda, K. Maehara, H. Katsuma, T. Torii, T. Natanabe, K. Muwaoka Department of 2nd Internal Medicine, Kyoto Prefectural University of Medicine, Kyoto

To evaluate morphological changes of LV in various heart disease, TL-201 MPI was performed in the six projections and long axis and radius of curvature was estimated. The long axis of the LV was calculated from the equation 1=gm(z+c), where y and z was the y and z vector of the LV long axis in the left lateral projection, θ was the angle between left lateral and LAO projection which LV showed transit plane. The radius of curvature was calculated 1=1/2d/L2+(d/2)2 where d was the distance between midpoint of the arcAB ( upper polar A and lower polar B of the LV ) and straight line AB. 51 pts were estimated, 15 pts were control, 14 pts were RV overload ( MR=AR=CHP= ), 22 pts were LV overload ( MR=AR=CHF= ). The scintigraphically estimated long axis was well correlated with one estimated from cine-angiography. The ratio of the short axis (D) and the long axis (L) was higher in PH, ASB, and CHF pts. AND the ratio of the radius of the curvature for the septal wall and for the free wall of the LV (rs/rp) was higher in RV overload groups. Thus the estimation of the long axis and radius of the curvature of the LV was valuable to morphological evaluation of the LV which seemed to be affected by pathological hemodynamic changes

1338 COMPARATIVE STUDIES ON LEFT VENTRICULAR PRESSURE AND VOLUME OVERLOADING WITH TL-201 MYOCARDIAL SCINTIGRAPHY, ECHOCARDIOGRAPHY, ECG AND VCG. Y. Tsukahara, K. Owada, N. Awan, M. Kijima, K. Oto, S. Ebitani, S. Murai, K. Machii, T. Uchida and S. Kariyone First Department of Internal Medicine, Fukushima Medical College, Fukushima

Comparative studies on the pattern of TL-201 myocardial scintigraphy, echocardiography, ECG and VCG were performed simultaneously in 40 patients with left ventricular hypertrophy. LV area, LV uptake index and wall uptake ratio were measured in LAD view of TL-201 myocardial imaging. The following results were obtained: 1) The three indices of TL-201 scintigraph in AS and hypertension with pressure overload were slightly larger than those of control group, and LV area barely correlated with LVd and LVSED. In MR and AR with volume overload, LV area was larger, and LV uptake index and wall uptake ratio were slightly larger than control. LV area and LV uptake index correlated with LV mass, LVd and LVEDV. LV area of pressure overloading group was larger than that of volume overload groups. 2) In idiopathic cardiomyopathy, wall uptake ratio of HCM was slightly larger, and LV area and LV uptake index of HCM were slightly larger than control. LV areas of CCIM was was slightly larger than control, and wall uptake ratio of CCIM was almost equal to that of control group. LV area of HCM was smaller than that of CCIM, and wall uptake ratio and IVS/LVFW of HCM were larger than those of CCIM.