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COMPARISON OF THALLIUM MYOCARDIAL IMAGING AND CORONARY ARTERIOGRAPHY-DIFFERENTIAL DIAGNOSIS OF MYOCARDIAL NECROSIS, FIBROSIS AND ISCHEMIA.


Combined use of thallium myocardial imaging and coronary arteriography were studied in 259 cases of various heart diseases. 1. Ischemic heart disease (MI, AP). 2. MCS with RCA, LCA aneurysm. 3. Valvular heart diseases (MR, ASR). 4. Primary myocardial diseases (HCM, OCM). 5. Secondary myocardial disease (Sarcoidosis, SLE etc).

In conclusion, thallium perfusion defects due to fibrosis were seen in cardiomyopathy including OCM, HCM, Sarcoidosis etc, while no angiographic stenosis of coronary artery were demonstrated in these cases. The same findings were observed in valvular heart diseases including MR, ASR.

In conclusion, thallium perfusion imaging were useful tool to evaluate tissue characterization of myocardial fibrosis, necrosis and ischemia.

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EVALUATION OF ISCHEMIC HEART DISEASE BY QUANTITATIVE ANALYSIS OF Tl-201 MYOCARDIAL SCINTIGRAPHY AND REGIONAL WALL MOTION IN RADIONUCLIDE VENTRICULOGRAPHY.


In order to assess the Tl-201 uptake, the coronary circulation and regional wall motion, we performed quantitative analysis of Tl-201 myocardial scintigram and regional wall motion in radionuclide ventriculography. The patient included 30 with ischemic heart disease, 5 with other heart disease and 5 control subjects. These patients were given intravenous injection of Tl-201, Te-99m-HSA and myocardial scintigram, RI-angiogram were obtained. The data was processed by an online mini-computer system. Our study suggested that the Tl-uptake in myocardial scintigram, reflected collateral circulation and the change of the left ventricular wall motion corresponded with the degree of Tl-uptake in myocardial scintigram.

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A COMPARISON OF THALLIUM-201 SCINTIGRAPHY IN THE EARLY AND THE LATE PHASE OF MYOCARDIAL INFARCTION.


We examined the diagnostic usefulness of Thallium-201 scintigraphy during both early (average 18 days after onset of symptoms) and late phase (average 12 months). In diagnosis of localization of myocardial infarction, correlation between scintiscan and ECG was high, but the former was preferred to the latter in lateral and posterior infarction. Score of the defect size by Kelly et al. was useful in detection of infarct size. Fifteen of twenty-five patients (60 percent) showed decrease (p<0.001), six patients (24 percent) increase and four patients (16 percent) similar of the defect size in repeat scans. Thallium-201 repeat scintigraphy gives optimal prognostic information when performed in early and late phase.

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RADIONUCLIDE DIAGNOSIS OF RIGHT VENTRICULAR INFARCTION.


13 cases of right ventricular myocardial infarction (RMI) associated with inferoposterior infarction were studied using myocardial perfusion imaging (MPI) and radionuclide cardiography (RNA).

By RNA, dilated RV chamber and decreased RV EF were observed in RMI cases in comparison with anterior inferior infarction. The average values of RV, LVEF in RMI cases were 36.5, 44.6% while in normal cases, 54, 62% respectively.

By MPI, in RMI cases, infero-posterior and postero-septal perfusion defect were observed by slant hole collimator and seven pin hole collimator.

In conclusion, radionuclide study of RMI were characteristic by RNA and MPI in addition to the hot uptake of TC-PYP.