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CLINICAL SIGNIFICANCE OF TECHNETIUM-99m PYROPHOSPHATE MYOCARDIAL SCINTIGRAMS IN PATIENTS WITH OLD MYOCARDIAL INFARCTION. S.Matsushita, G.Sugioka, A.Tada and I.Tatsuno. Kanazawa National Hospital, Kanazawa.

To assess the clinical significance of Tc-99m pyrophosphate (PYP) myocardial scintigrams in patients with old myocardial infarction (OMI), Tc-99m PYP myocardial scintigrams were obtained in 33 patients with OMI. Tc-99m PYP scintigrams were graded on a scale from grade 0 to IV according to Parkey's classification. Each scintigram was also classified as focal or diffuse Tc-99m PYP uptake.

Thirteen of 33 patients (39.4%) had a grade II positive scintigram and 9 (27.3%) had a grade III strong positive scintigram. Patients with grade II focal and grade III positive scintigrams were demonstrated to have lower left ventricular ejection fraction than those with grade 0, I and II diffuse ($38 \pm 2.7\%$ VS $51 \pm 2.9\%$, $p < 0.01$). Majority of patients with grade II and III had a multivessel disorder in coronary arteriograms. On the other hand, patients with grade 0 and I were demonstrated to have normal coronary or one vessel disease except one.

Thus, patients with positive Tc-99m PYP scintigrams in old myocardial infarction have greater impairment of left ventricular function compared with those without positive scintigrams and have a multivessel disease in coronary arteriograms.

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THE EVALUATION OF LONG TERM PROGNOSIS IN CHILD PATIENTS WITH ACUTE MYOCARDITIS. M.Wakakura, T.Muto, I.Okuzumi, Y.Kawamura, J.Yamazaki, T.Morishita¹⁾, T.Saji, S.Matsuo²⁾, and Y.Sasaki³⁾. 1) 1st Dept. of Int. Med., Toho Univ., 2) Dept. of Pediatrics, Toho Univ., 3) Dept. of Radiology, Toho Univ., Tokyo

16 patients with myocarditis were performed Tl-myocardial scintigram and Tc-99m poolimage at onset and 3 months to 5 years after onset, and observed changes of cardiac function and Tl uptake in myocardium. 11 patients were examined cardiac catheterization and 10 were performed biopsy.

The patients had fever (56%), common cold (25%), abdominal symptom (25%) and others. Cardiac symptom were heart failure (56%), arrhythmia (44%), cardiac shock (12.5%) and others. Almost patients were found the improvement of cardiac function and Tl defect score.

We hope the observation of cardiac function and myocardial perfusion using Tl scintigram and Tc poolimage in long term is helpful to know the relationship with myocarditis and idiopathic cardiomyopathy.

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VALUE OF Tc-99m-PYP MYOCARDIAL SCINTIGRAPHY IN THE DIAGNOSIS OF CARDIAC AMYLOIDOSIS. M. Hongo, H. Yamada, S. Okubo, J. Hirayama, T. Fujii and S. Kusama. The First Department of Internal Medicine, Shinshu University School of Medicine, Matsumoto.

Tc-99m-PYP scintigraphy was performed in 4 patients with primary amyloidosis and 6 with familial amyloid polyneuropathy (FAP), and its clinical significance and value in the diagnosis of cardiac amyloidosis were evaluated. Diffusely positive myocardial uptake of Tc-99m-PYP was observed in all of systemic amyloidosis (marked 2, moderate 6, mild 2), of whom 2 had also hepatic uptake and another one had both hepatic and thyroid uptake. FAP had slightly less intensity than primary amyloidosis. On the other hand, 7 of 31 patients with other cardiac diseases had also diffusely positive myocardial scans of mild or moderate degree. But, none of them had marked myocardial uptake, nor hepatic and thyroid uptake.

In conclusion, Tc-99m-PYP scintigraphy is a useful non-invasive procedure in the diagnosis of cardiac amyloidosis in not only primary amyloidosis but also FAP. However, we should pay attention to the hepatic and thyroid uptake besides positive myocardial scans when cardiac amyloidosis is diagnosed by Tc-99m-PYP scintigraphy alone because diffusely positive myocardial uptake of Tc-99m-PYP is usually seen in other cardiac diseases.