

**3-(2)**

PROGNOSTIC VALUE OF THALLIUM-201 MYOCARDIAL PERFUSION SCAN IN PATIENTS WITH ACUTE MYOCARDIAL INFARCT. Y. Suzuki and H. Tomoda. Tokai University Medical School. Isehara, Japan.

To determine whether the severity of Tl-201 perfusion scan defects could be used to predict subsequent clinical course in patients with acute myocardial infarct (AMI), size of the perfusion defects was determined retrospectively in 106 patients and it was compared with clinical and laboratory data. The extent of Tl-201 perfusion defects was determined in 3 views by the average ratio of the length of perfusion defects to that of the length of left ventricle (LV) and it was designated as a percent defect index (PDI). As the PDI increased, the peak value of creatine phosphokinase, the grade of Peel index, incidence of congestion on initial chest X-ray and incidence of LV aneurysm all gradually increased. In 48 patients followed for 23 months on the average after discharge, the incidence of congestive heart failure and mortality also increased along with increment of the PDI. In particular, the prognosis was very poor in the patients who had the PDI greater than 40%.

In conclusion Tl-201 myocardial perfusion scan is very effective in prediction of prognosis as well as diagnosis in patients with AMI.

**4-(1)**

DIAGNOSTIC EFFICACY OF RADIONUCLIDE IMAGING IN LIVER DISEASES. T. Aburano. Kanazawa University School of Medicine, Kanazawa.

The present state of diagnostic efficacy of radionuclide imaging in liver diseases was discussed, compared to that of ultrasound or computed tomography. In conclusion, radionuclide imaging is still necessary for the evaluation of liver diseases.

In the detection of focal lesions in the liver, a radionuclide imaging with Tc-99m-colloid was slightly less sensitive and less specific than ultrasound and computed tomography. The small lesions less than 2-3cm in a diameter not detected by radionuclide imaging were sometimes detected by ultrasound. However, the large lesions easily detected by radionuclide imaging were frequently undetected by ultrasound or computed tomography. Therefore, combined study of radionuclide imaging and ultrasound was necessary to screen out the focal lesions in the liver.

In the evaluation of diffuse hepatic diseases, radionuclide imaging was accepted as a screening procedure, because of the feasibility of functional as well as anatomical evaluation. And Xe-133 inhalation study was also accepted as the diagnostic procedure for the evaluation of fatty liver. Whereas, ultrasound and computed tomography could provide information of anatomical changes associated with the extent the liver diseases.

In the evaluation of cholestasis, hepatobiliary imaging was the least accurate.

**4-(2)**

ESTIMATION OF CLINICAL EFFICACY FOR LIVER SCINTIGRAM—DIAGNOSIS OF DIFFUSE HEPATOCELLULAR DISEASE—. N. Katsuyama. Department of Radiology, Ryuky University.

A retrospective study was performed to estimate the clinical efficacy No.1 (diagnostic accuracy) of liver images on the diffuse hepatocellular disease. The results of which 11 physicians read the 272 liver images (normal (N) = 148 cases, diffuse hepatocellular disease (DH) excluding liver cirrhosis = 55 cases, liver cirrhosis (LC) = 69 cases) collected from 8 situations, were analyzed. The results of analysis are as follows.

(1) Specific findings on the liver image to differentiate LC from DH were, (a) contracted both lobes, (b) contracted right lobe, (c) increased uptake in spleen and bone marrow, (d) splenomegaly. Uneven distribution was not specific.

(2) Relatively specific findings to differentiate DH from N were, (a) enlargement of both lobes, (b) splenomegaly, (c) increased splenic uptake, (d) uneven distribution. Bone marrow uptake was not specific.

(3) Diagnosis of liver images for the diffuse hepatocellular disease was underestimated. Especially, a lot of DH cases were diagnosed for normal liver image.

(4) The accuracy of LC diagnosis on liver image was 80%.

Finally, the accuracy of liver scintigram for diffuse hepatocellular disease was not so good. This main reason was probably due to difference of various scanning methods.

However, if ultrasound and computed tomography showed no evidence of biliary obstruction, hepatobiliary imaging with Tc-99m IDA or Tc-99m PMT could separate patients with totally obstructed biliary flow, who require additional testing to define the correct therapy, from those with patent biliary flow whom medical management was indicated initially.