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DETECTION AND CLINICAL SIGNIFICANCE OF HBeAg AND ANTI-HBe BY RADIOIMMUNOASSAY. K.Tokuyama, Y.Yumoto, K.Jinno and T.Ishimitsu. National Shikoku Cancer Center Hospital, Matsuyama.

Ninety three HBsAg positive and 20 HBsAg negative patients with various liver diseases were examined on HBeAg and anti-HBe by RIA (Abott Lab. Co.). Results were shown as follows; 1) HBeAg pos. 31/93 (33%), a-HBe pos. 48/93 (52%), total 79/93 (85%). Male; HBeAg pos. 20/52 (39%), a-HBe pos. 23/52 (44%), female; HBeAg pos. 11/41 (27%), a-HBe pos. 25/41 (61%) 2) Mean age of a-HBe pos. cases was elder about 5 to 10 ys. than HBeAg pos. cases, and mean age of HBeAg & a-HBe pos cases was gradually increased with clinical progress of disease. 3) Mean HBsAg titer of HBeAg pos. cases was slightly higher than a-HBe pos. cases, but its difference was not so significant. 4) On detection of HBeAg & a-HBe, RIA was more sensitive than MO method. 5) In HBsAg neg. cases, HBeAg & a-HBe were detected positive in 2 cases with a-HBs and 3 cases with hepatoma. 6) Detection patterns of HBeAg & a-HBe in various liver diseases as follows; asymptomatic carrier: HBeAg/a-HBe (%/%) 19/71, chronic hepatitis: 67/33, liver cirrhosis: 20/60, hepatoma: 32/40, and the cases reserved to determine pos. or neg. of HBeAg or a-HBe were none in CH, but 24% in hepatoma. In conclusion, the detection pattern suggested the pathological and prognostic state of HBV infected case, and interesting follow-up study showed and suggested dynamic change of HBV associated Ag&Ab (seroconversion etc.).

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EXAMINATION OF THE MEASUREMENT BY RIA OF SERUM GLYCOCHOLIC ACID IN THE DISEASE OF HEPATIC BILIARY TRACT SYSTEM. M.Nishino, Y.Naruki, S.Otsuka, M.Irie. First Department internal medicine, Tono University School of Medicine.

The measurement of serum cholic acid is well reflected in the state of disease of the hepatic biliary tract. Glycocholic acid (GC) was investigated by means of RIA kit. GC antiserum showed such cross reactions as 100%, 14.4% and 44.7% to GC, cholic acid and taurocholic acid, respectively. The correlation coefficient between total cholic acid and GC, respectively determined by a gas chromatography and RIA in the same sample, showed  $r=0.909$ . The recovery rate was 102.5% and the recovery of C.V. was 2.0 to 7.3%. The dilution rate showed a favorable linearity. The minimum sensitive concentration was  $0.34 \text{ n mol/ml}$ . GC values in the normal person, patients of acute hepatitis, chronic hepatitis, liver cirrhosis, hepatoma, cholelithiasis and obstructive jaundice were  $1.00 \pm 0.42 \text{ n mol/ml}$ ,  $66.4 \pm 23.09 \text{ n mol/ml}$ ,  $2.55 \pm 2.30 \text{ n mol/ml}$ ,  $11.23 \pm 9.74 \text{ n mol/ml}$ ,  $12.73 \pm 12.92 \text{ n mol/ml}$ ,  $8.34 \pm 26.77 \text{ n mol/ml}$  and  $30.80 \pm 30.82 \text{ n mol/ml}$ , respectively. GC was a good indicator of the effect of PTCD on the malignant obstructive jaundice. In the measurement of GC by RIA, sufficiently stable results could be obtained. Using this method of measurement, results reflecting the state of disease of the hepatic biliary tract were obtained.

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CLINICAL SIGNIFICANCE OF ENDOGENOUS BILE ACID TOLERANCE TEST. S.Nakano, K.Kitamura, H.Watahiki, I.Takeda, S.Matsuo and I.Kanamori. 2nd Clinic of Internal Medicine (Department of Gastroenterology) and Department of Radio-Nuclear Medicine, Ogaki Municipal Hospital, Ogaki City, Gifu ken.

Total cholic acid (T-CA) in the serum were examined in 73 patients including 32 patients with chronic hepatitis (inactive and active form), and 41 patients with liver cirrhosis (compensatory and decompensatory) by RIA methods before and 30, 60, 90, 120, 150 and 180 minutes after caerulein administration. Fasting T-CA values were well correlated with T-Bil, ICG R15 and  $\gamma$ -Globulin ( $p < 0.05$ ) and paralleled with the degree of liver damage. T-CA curves after caerulein administration, on the other hand, showed clear-cut difference between chronic hepatitis and liver cirrhosis. Remarkable high values persisted during the test in the latter. Though remarkable difference of the increasing ratio 30 minutes after caerulein administration was not obtained, summation of each values of T-CA showed a significant difference between chronic hepatitis and liver cirrhosis.

Thus, the measurement of the bile acid, especially fasting CA and total CA after caerulein administration in the chronic liver diseases, is a sensitive, valuable test for detecting the grade of liver damage.

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SUBTRACTION SCINTIGRAPHY WITH Tc-99m-COLLOID AND Ga-67 IN THE DIAGNOSIS OF PRIMARY LIVER CELL CARCINOMA. S.Terui, H.Kawai, H.Fukukita, K.Nagaiwa, T.Uehara and H.Oyamada. National Cancer Center Hospital, Tokyo.

Twenty five cases with primary liver cell carcinoma were examined by subtraction scintigraphy using Ga-67-citrate and Tc-99m colloid from May 1979 to June 1980 at the National Cancer Center Hospital, Tokyo. This method required to subtract the Tc-99m image from the Ga-67 image, which resulted in clear-cut deposit of Ga-67 in the diseased area on the subtraction image even in cases with equivocal findings on the original scintigrams. It often pointed out intrahepatic metastases to the remaining segments otherwise not remarkable. Considering the fact that resectability of the liver cell carcinoma is largely dependent upon the presence of such metastases, this method is now proved to very helpful in diagnosing the extent of the liver cell carcinoma as well as its operability.