## HBs Ag and Anti-HBs in the Healthy Aged People: Appearance rate and the Investigation of HBs Ag Positive Person

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HBs Ag and anti-HBs were investigated in the aged in order to clarify the prognosis and the final outcome of the HBs Ag carieer. The subjects investigated were the 1730 healthy persons living in Tokyo Metropolitan Geriatric Homes. The HBs Ag positive persons were reexamined about 9 months after and personal history relating to liver disease and the function of the liver were studied at the same time. The results were as follows:

(1) HBsAg positive persons were 55 (3.2%).
(2) Anti-HBs positive persons were 848 (49.0%).
(3) Among 55 HBsAg persons, anti-HBs were positive in the 28 (50.9%).
(4) The 65.4% of the HBsAg positive persons were not related with the liver disease.
(5) The functions of liver were normal in most of the cases examined except the case with Hepatoma.
(6) Twenty five (50%) persons were again positive among the first HBsAg positive 50 persons followed up.
(7) One died of Hepatoma among the HBsAg positive persons.
(8) Among the 25 of the persistent HBsAg positive persons, 14 (56%) persons were considered as so-called asymptomatic carrier and 7 (28%) persons had both antigen and antibody.

These findings suggest the need of future investigation.

## The Significance of $\alpha$-Fetoprotein in Patients with Severe Hepatitis and Acute Exacerbation of Chronic Hepatitis

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The clinical significance of $\alpha$-protein (AFP) was discussed by using radioimmunoassay (RIA) in the patients with severe hepatitis and acute exacerbation of chronic hepatitis. All 11 patients with chronic hepatitis at acute exacerbation showed positive AFP levels (>20 ng/ml), which altered in parallel with serum transaminase levels, and the peak AFP levels were attained 1 to 2 weeks after peak S-GOT. There was no correlation between serum concentrations of AFP and levels of S-GOT or serum bilirubin. In one case the peak of AFP level reached to 10,825 ng/ml. Histological findings obtained by needle biopsy proved to be moderately or severely active features in all cases. It is speculated that the increase in serum levels of this protein in these liver diseases reflects hepatic

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regeneration after parenchymal demages. It is possible that the serial measurement using more sensitive methods for AFP detection, such as RIA, might provide useful information regarding the differential diagnosis for the elevations of AFP levels due to hepatoma or hepatic regeneration.

Out of 7 cases with severe hepatitis AFP was positive in 5, of which 3 patients should AFP levels exceeded 1,000 ng/ml. All of them, however, died within 2 months after the onset. Therefore, our observation in these cases failed to provide the evidence of judgement upon the prognosis.

## Breathholding Liver Scintigraphy: To Detect Small Focal Lesions and Evaluate Them Either Intrahepatic or Extrahepatic

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In attemps to detect focal liver lesions and to exclude extrahepatic nature of liver defects, liver scintigraphy at breathholding has been carried out. Thirty patients suspected of benign or malignant liver diseases were studied. After a 10–15 mCi dose of $^{99m}$Tc-Sn-colloid or $^{99m}$Tc-phytate was administered, anterior, posterior, and lateral views were obtained in several positions (supine, sitting, right or left decubitus) at 15–20 seconds duration of breathholding to evaluate intra-or extrahepatic origin of liver defects, and a scintigram at breathholding was compared with at usual breathing in the same position.

In the comparison between the scintigram at breathholding and usual breathing the former showed more distinct image than the latter.

At the right decubitus position increased splenic RI activity was shown in almost every case, while increased right hepatic RI activity was similarly seen at the left decubitus position. Therefore it will be sometimes difficult to diagnose diffuse hepatic diseases with the degree of splenic visualization.

A defect from extrahepatic origin had a tendency to change variously according as positions. On the other hand, an intrahepatic lesion showed relatively less change. Consequently it may be possible to determine the character of space occupying lesions of the liver by this method.

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