—Preliminary Note—

An epidemiologic study on hepatitis B virus infection in Chiang Mai, 1983~1984

Yoko Wakayama¹⁾, Harumi Taguchi¹⁾, Hitoshi Yunoki¹⁾, Somboon Suprasert²⁾, Boonyong Pongprot²⁾, Jiraporn Supawadee³⁾, Hiroshi Suzuki⁴⁾, Yoshio Ogawa⁴⁾, Shoko Hirano⁴⁾ and Yukio Yamaji⁴⁾

1) Department of Hygiene and Public Health, Nippon Medical School, Tokyo

2) Department of Preventive and Community Medicine, Chiang Mai University, Chiang Mai

3) Department of Microbiology, Chiang Mai University, Chiang Mai

4) Department of Microbiology and Immunology, Nippon Medical School, Tokyo

Infection with hepatitis B virus (HBV) is common in many countries, especially in Asia and Africa. Our previous study in the hill tribes in Thailand showed that prevalence rates of HBs-Ag, anti-HBs and anti-HBc were 14.6%, 36.6% and 56.1% respectively, and the rate of people with abnormal level in S-GOT was 70.2% and in ZTT, 64.4%¹⁾.

In this report, we describe results with blood specimens collected in Chiang Mai province in 1983~1984. The sera were tested by the enzyme-linked immunosorbent assay^{2,3)} for HBs-Ag, anti-HBs and anti-HBc in 102 children under the care of the Comprehensive Child Care Clinic (4C) in Chiang Mai University, and 63 of their parents, 57 workers at the kitchen of cafeteria in Chiang Mai University (K.P.), 123 residents in Doi Saket district (VIH) and 305 students at Drama School (D.S.). Sera were also examined for transaminase (S-GOT: normal 5~40 Karmen unit) and zinc sulfate (ZTT: normal 4~12 Kunkel unit).

Prevalence of HBV serological markers among 4C-Child, 4C-Adult, K.P., VIH and D.S. is presented in **Table 1**. Prevalence of HBs-Ag was the highest in 4C-Child (9.0%) and the lowest in 4C-Adult (3.2%). Prevalence of anti-HBs was the highest in K.P. (45.6%) and the lowest in 4C-Child (11.1%). Prevalence of anti-HBc was the highest in 4C-Adult (65.1%) and the lowest in 4C-Child (24.5%). One out of 9 HBs-Ag positive cases in 4C-Child, two out of 5 in K.P. and one out of 11 in VIH were anti-HBs positive, and one out of 9 HBs-Ag positive cases in 4C-Child was anti-HBc negative. Percentage

Table 1 Detection of HBs-Ag, HBs-Ab and HBc-Ab

Group State	4C-Adult ^{a)}		4C-Child ^{b)}		Kitchen ^{c)} Personnel		Doi Saket ^{d)} District		Drama ^{e)} School	
	No.	Pos. (%)	No.	Pos. (%)	No.	Pos. (%)	No.	Pos. (%)	No.	Pos. (%)
HBs-Ag	63	2 (3.2)	100	9 (9.0)	57	5 (8.8)	123	11 (8.9)	305	17 (5.6)
HBs-Ab	63	28 (44.4)	99	11 (11.1)	57	26 (45.6)	123	45 (36.6)	305	70 (23.0)
HBc-Ab	63	41 (65.1)	102	25 (24.5)	57	35 (61.4)	123	72 (58.5)	305	112 (36.7)

Age of year (M. $\pm$ S.D.): a) 38.41 ± 7.13 , b) 7.88 ± 0.89 , c) 34.16 ± 8.05 , d) 38.22 ± 9.20 and e) 19.67 ± 8.10

Present address: Department of Hygiene and Public Health, Nippon Medical School, 1-1-5, Sendagi, Bunkyo-ku, Tokyo, 113 Japan

Table 2 Abnormal level of liver function

State \ Group	4 C-Adult		4 C-Child		Kitchen Personnel		Doi Saket District		Drama School	
	No.	Abnormal	No.	Abnormal	No.	Abnormal	No.	Abnormal	No.	Abnormal
GOT	63	4 (6.3)	80	—	56	9 (16.1)	123	4 (3.3)	289	2 (6.9)
ZTT	63	5 (7.9)	79	6 (7.6)	55	21 (38.2)	123	22 (17.9)	289	11 (3.8)
GOT & ZTT	63	7 (11.1)	79	6 (7.6)	55	23 (41.8)	123	23 (18.7)	289	13 (4.5)

() %

of cases which showed one or more markers of HBV infection tested in this study was the highest in 4 C-Adult (65.1%) and the lowest in 4 C-Child (25.5%). There was a tendency for HBs-Ag prevalence to be higher in children than in adults, but a tendency for anti-HBs and anti-HBc prevalence to be higher in adults than in children. Except 4 C-Child, there was a tendency for prevalence of HBs-Ag, anti-HBs and anti-HBc to be higher in males than in females.

Proportion of abnormal level of liver function is presented in **Table 2**. Abnormal level of S-GOT was observed most frequently in K.P. (16.1%), but not in 4 C-Child (0%). For ZTT, proportion of abnormal level was the highest in K.P. (38.2%) and the lowest in D.S. (4.5%). The highest proportion of abnormal level of liver function (S-GOT & ZTT) was 41.8% in K.P. and the lowest was 4.5% in D.S. There was a tendency that rate of abnormal level of liver function changed with socioeconomical environment, but not with ages. Prevalence of HBs-Ag, anti-HBs and anti-HBc and proportion of abnormal level of liver function were much higher in Thais than in Japanese^{4,5)}. Prevalence of HBs-Ag and anti-HBs and proportion of abnormal liver function observed in Chiang Mai area were lower than in other areas in Thailand^{1,6)}.

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