

Thesis Title Risk Factors of HIV and HBV Co-Infection in
Chiang Rai, Thailand

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ABSTRACT

This hospital based case-control study design aimed to investigate the risk factors of HIV/HBV co- infection in Chiang Rai province. Totally, 124 HIV-infected cases were recruited into the study from 9 ARV clinics; Mae Sai, Mae Chan, Chiang Saen, Khun Tan, Phaya Meng Rai, Theong, Mae Suai, Mae Lao, and Phan hospitals. Completed structured questionnaires, 5 ml blood specimen and the in-depth interview were research instruments. Enzyme immunoassay and the immunochromatography methods were used for detecting HBV serological markers. Both of univariate and multivariate analyses were used for identifying the risk factors. The statistical significance level of 0.05 was used for identifying the association between independent and dependent variables. Results, 50.00% were male, 40.32% aged between 30 -39 years old, 62.90% married, 95.97% Buddhism, 18.55% illiterate, 10.48% unemployed. Twenty three point four percentages had a history of blood transfusion, 12.90% had history of jaundice, 24.19% had comorbidity, 29.03% had CD4 cell count ≤ 200 cells/mm³, 33.87% had length of HIV infection > 3 years, 4.84% lived with HBV positive person in their family, 12.90% shared objects with

their family members, 0.81% IDU, 29.34% tattooed, 64.52% pierced. Twelve point one percentages had worked as commercial sex worker, 11.29% had the first sexual intercourse ≤ 15 years old, 6.45% homosexual, 37.90% had ≥ 10 sex partners, and 94.35% never or sometimes used condom before known the HIV status. After controlling the possible confounder factors by the multiple logistic regressions, it was found that 2 factors were associated with HIV/HBV co-infection: Years in school “No education” group had a greater risk than “ ≥ 13 years” group by 7.07 times (OR=7.07, 95% CI=1.77-28.24), and CD4 cell count “ ≤ 200 cells/mm³” group was presented as a protective factor when compared to “ ≥ 200 cells/mm³” group (OR=0.35, 95% CI=0.13-0.94).

An improvement in the socioeconomic status of the general population, in particular level of general education and sex education, should help toward reducing HIV/HBV co-infection. HIV-infected patients should receive HBV vaccination, continue to use condom, and practice safe sex in order to reduce the risk of co-infection with hepatitis.

Keywords: HIV/HBV/Co-Infection/Risk Factors