

Prevalence of HIV-2 seropositivities among drug abusers

Nikom Chaisiri¹, Varapan Danutra², Somchai Issaravanich³, Vipha Danthamrongkul³,
Vilai Chinveschakitvanich³ and Chanida Palanuvej³

¹ Department of Biochemical, Faculty of Veterinary Science, Chulalongkorn University, Bangkok, Thailand

² Department of Biochemical, Faculty of Science, Chulalongkorn University, Bangkok, Thailand

³ Institute of Health Research, Chulalongkorn University, Bangkok, Thailand

ABSTRACT

Thailand has been an endemic area of HIV, the etiological agent of AIDS, for about the same period as other countries. Since the infected virus is the HIV type 1 therefore the diagnostic system has been aimed at screening for anti-HIV-1 and this may not be able to detect the HIV-2 infected people. From the data collected by interviewing drug abusers at the Samutprakarn Province Hospital it was found that the majority of them were males (95.7%). Among this group, 92.9% were examined for HIV-2. Many of them came for the treatment for 1 time (50.8%). Most of them aged between 15-39 years, had low income and had only primary school education. Nearly all of their drug used was heroin (99.6%). Upon examining the HIV-seropositive sera (168 samples) using ELISA for HIV-2 to test for the specificity of the test kit, 81.0 percent cross reactivity were obtained. Thus an alternative strategy by screening the drug abusers sera with an ELISA for anti-HIV1+2, confirmed with a Western blot (WB) for HIV-1 which containing gp 36 specific band for HIV-2 and reconfirmed by WB for anti-HIV-2 was carried out. It was found that 21.2 percent of 1,152 samples were HIV seropositive and 95.5 percent of them was anti-HIV-1 seropositive whilst 3 samples (1.9%) containing both anti-HIV-1 and 2. The large number of percent cross reactivity when screening with HIV-2 ELISA in the HIV-1 endemic area may be derived from low specificity of the viral lysate antigen. The appearance of anti-HIV-2 among the drug abusers can be a sign of HIV-2 spread in Thailand. Investigation into other high risk groups for HIV-2 infection, for instance, in prostitutes, is also of important in HIV-2 surveillance.

Key words : HIV-2, Prevalence, Drug Abuser