Abstract

The human immunodeficiency virus type 1 (HIV-1) epidemic in Taiwan is rapidly escalating due to an increasing number of injection drug users (IDU). Totally, about 600 individuals of IDU or their sexual partners received our counseling and screen test of HIV-1 infection. A molecular epidemiological study of HIV-1-infected IDU in Taiwan was conducted from January 2004 to April 2005. Of the 131 HIV-1 positive specimens collected, all contained detectable sequences, including 105 from the C2-V3 region of *env* and 87 from the protease (PR) and reverse transcriptase (RT) genes of *pol*. Phylogenetic analysis of these sequences indicated that 128 individuals harbored CRF07_BC, which resembles the dominant strains circulating among IDU in China. Twenty-three individuals had a history of travel to the southwest provinces of China and shared needles or apparatuses there. This suggests that CRF07_BC might have been transmitted from China into Taiwan, thereby causing an outbreak among IDU in Taiwan. This is the first report in the English literature of the appearance of HIV-1 CRF07_BC in Taiwan. These findings provide information relevant to the development of antiviral therapy and vaccine in Taiwan, and may assist public health workers in the prevention of HIV-1 spread.

Keyword: HIV-1, CRF07_BC, injection drug user, Taiwan