

RESEARCH NOTE

IDENTIFICATION OF DENGUE VIRUS IN *Aedes* MOSQUITOES AND PATIENTS' SERA FROM SI SA KET PROVINCE, THAILAND

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Abstract. Dengue fever (DF), dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS) are the re-emerging infectious diseases caused by dengue (DEN) virus, transmitted by *Aedes* mosquito. There are more than 100,000 cases of dengue infection and more than 100 deaths annually in Thailand. Virological surveillance for DEN viruses is used as an early warning system to predict outbreaks. The seroprevalence of infection and serotypes of DEN virus in 116 pediatric patients at Si Sa Ket Province, Thailand were analyzed during June to September 2004. At the same period, *Aedes* mosquitoes were caught from patients' and their neighbors' houses, from control houses, located in villages with no report of dengue infection during the previous 3 years. The majority of DHF cases were secondary infections of DEN-2 and DEN-4 serotypes. Of the 1,652 *Aedes* mosquitoes collected 1,583 were *Ae. aegypti* and 69 *Ae. albopictus*. Ten mosquitoes from each house were pooled and dengue viruses were determined using RT-PCR assay; only 1 positive pooled was found. Although the dengue infection rate in the field caught mosquitoes was low, the existing dengue virus control program in transmission areas by aerial spraying to destroy the larva breeding sites should be continued.

Keywords: dengue virus, mosquito, RT-PCR, surveillance

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