

Investigation of Indigenous Dengue Fever Outbreak in a University in Tainan, Taiwan, 2019

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Abstract

In September 2019, an indigenous dengue fever outbreak occurred at a university in Tainan, Taiwan. This outbreak caused six patients, five of whom were indigenous. The serotype of dengue virus isolated from all patients was confirmed as Type III, which was different from other outbreaks in Tainan in the same period. The local health authorities investigated and identified a foreign student as the possible infection source. The home country of the imported case was the same as the origin of the dengue virus serotype in this outbreak based on laboratory surveillance data. The university, local health authorities, and the Taiwan Centers for Disease Control implemented control measures to prevent further transmission. Since the number of international students had been increasing in recent years, the university set up a prevention management plan for dengue fever for international students. This investigation highlighted the possibility of dengue-infected foreign students causing an indigenous outbreak. As a risk factor, education departments and universities should consider the placement of foreign students as part of management projects on dengue fever control and prevention.

Keywords: Dengue fever, indigenous case, imported case, foreign student, campus outbreak

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