

Review and Analysis of Dengue Fever in Penghu County, Taiwan, 2011

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Abstract

In September 19, 2011, the first case of dengue fever, who was a university student in Pingtung and lived in Makung City, was confirmed by laboratory of Taiwan CDC. After 9 days, her mother and young brother were also confirmed by expanded screening, and an epidemic soon followed. The genotype of dengue type 2 virus detected from the family cases was found similar to the first patient in summer 2011 in Kaohsiung City. This report described the case-control study conducted on 153 reported cases (99 confirmed and 54 negative cases) in Penghu County, and the control measures implemented, as well as results from monitoring of vector sources. The results showed that all confirmed cases were: (1) lived or worked in Makung City, especially that residing within or adjacent to Chongcing Li borough were risk for dengue infection; (2) the average duration from the onset of clinical signs to reporting date was longer than the control cases (3.9 days vs 2.6 days; $p < 0.05$); and (3) significantly with skin rash. Overall, 16563 wet containers were inspected, and 776 (4.7 %) were larvae-positive. The storage drums or vats, discs and flower bottles were the most common container type. The residential area had wet containers more than other places. Vegetable garden and vacant lot or houses were most likely to contain larvae. The results were similar to the investigation conducted in Kaohsiung and Pingtung areas. Therefore, we recommend risk management of the garden and vacant lot or houses. This report provides basic information for improving the quality and performance of dengue prevention and control.

Keywords: Dengue fever, Dengue type 2 virus, epidemic