

Investigation of a Multi-Drug Resistant Tuberculosis Cluster in a Family and Campus, Central Taiwan, 2018

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Abstract

In 2018, a family cluster of multi-drug resistant tuberculosis (MDR-TB) occurred in central Taiwan. Among the 5 family members, 4 were diagnosed with MDR-TB. The isolates were sent to the Mycobacterium Laboratory at Center for Research, Diagnostics and Vaccine Development for genotyping, and the results showed the same genotype. The index case went to a hospital due to a persistent cough in November 2018 and was diagnosed with pulmonary tuberculosis. We conducted a contact investigation immediately, and two household contacts were diagnosed with MDR-TB. One more household contact developed MDR-TB one year later during follow-up. In addition to household contacts, two other contacts were diagnosed with MDR-TB. One contact had the same genotype isolate, and the other one had no culture report. Through our contact investigation and health education, we found cases more efficiently. We suspected one of these cases was the primary case because the case had an abnormal chest X-ray report in 2017, but he did not seek medical advice. We recommend establishing a reporting system for abnormal physical examinations. Besides, we also recommend encouraging contacts to receive latent tuberculosis infection treatment to lower the risk of becoming an active MDR-TB case.

Keywords: Multiple drug resistance tuberculosis (MDR-TB), cluster, treatment of latent tuberculosis infection in contacts with multiple drug resistance tuberculosis (MDR-LTBI)

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