

Investigation on the Laboratory Infection of Bacillary Dysentery of a Hospital, Tainan, 2020

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Abstract

On December 10, 2020, a hospital in Tainan reported a 30-year-old female infected with bacillary dysentery. The stool culture test was confirmed as *Shigella flexneri* 2a (sub-group B). The confirmed case was a medical technologist of the bacterial laboratory in the hospital. The test results of fecal specimens from 23 contacts were all negative. During her incubation period, the laboratory identified another case of bacillary dysentery infected with *Shigella flexneri* 2a. Both isolates shared the same DNA fingerprint pattern (code: SFN09.0219) by pulse-field gel electrophoresis (PFGE).

According to the surveillance data of the Taiwan Centers for Disease Control (TCDC), the prevalent type of *S. flexneri* 2a code SFN09.0219 in Taiwan was 72.7% in the past four years. These two cases cannot be identified as a hospital or community-acquired infection, however, a laboratory infection was suspected. The South Regional Center of TCDC and the local health bureau immediately conducted an on-site inspection at the laboratory, and recommended that the hospital biosafety committee should strengthen the biosafety education training of the personnel and regularly disinfect the equipment and environment to eliminate the possible risk of infections in the laboratory.

Keywords: Shigella, bacillary dysentery, laboratory infection, biosafety, on-site laboratory inspection

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DOI: 10.6525/TEB.202310_39(20).0001

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Received: Mar. 05, 2021
Accepted: Sep. 03, 2021