

Abstract

Case report tuberculosis contact investigation in a food delivery company

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The Korea Disease Control and Prevention Agency (KDCA) oversees tuberculosis (TB) epidemiological investigations. In addition, the KDCA established and implemented national policies for TB prevention and management. This report covered a case where an employee of a food delivery company was reported as a TB patient in June 2021. A contact survey was conducted on all six members of the food delivery company. There were no additional TB patients, but all six employees (100%) were diagnosed with latent tuberculosis infection.

Drivers in the food delivery industry business are a special type of worker and are not included in the general physical examination under the Occupational Safety and Health Act, so systematic health care such as regular physical examinations are required. About 40% of TB patients belonging to collective facilities were identified via physical examination in the Gyeongnam region in 2020 and 2021, showing the importance of regular physical examinations to prevent TB.

Therefore, it is critical to recognize and carefully manage the health risk factors in food delivery companies for TB prevention management. The KDCA, regional centers for disease control and prevention and rapid response measures will continue to strengthen the TB prevention management system through close cooperation with local health authorities.

Keywords: Tuberculosis, Investigation, Latent tuberculosis infection, Physical examination

Table 1. Tuberculosis patient test results

Patient	sex/age	Diagnosis (date)	Clinical manifestation	cavity on chest x-ray	Microbiological study					Others
					AFB smear	TB -PCR	AFB culture	Drug sensitivity	Genotype	
Index	M/45	Pulmonary 2020.6.2.	cough, sputum, weigh loss (4week)	cavity	(+)	(+)	(+)	INH Resistance	under examination	underlying disease: Bladder cancer, DM

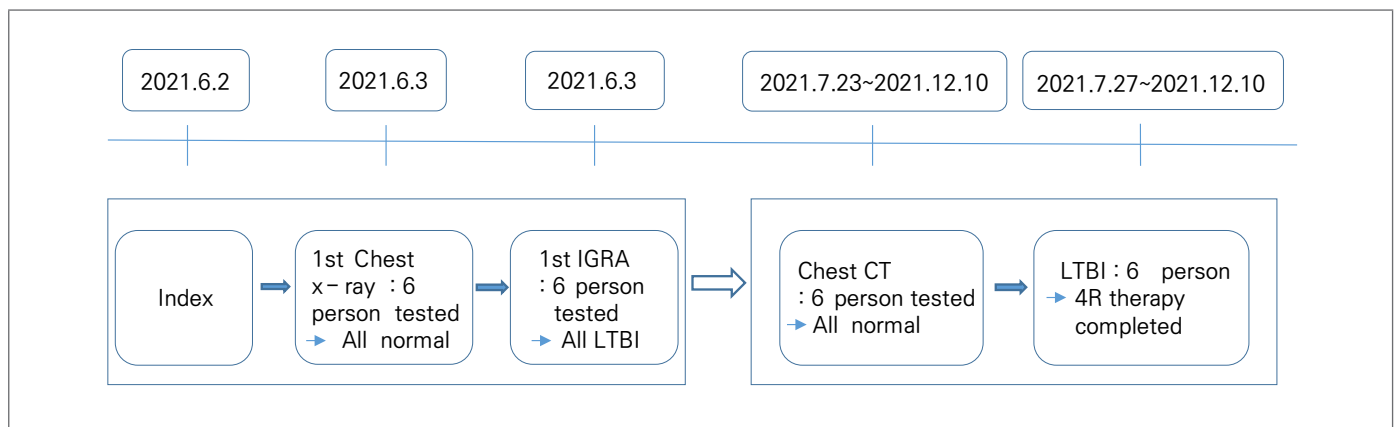


Figure 1. The process of tuberculosis contact investigation

Table 2. Food delivery company and employee demographics

Business establishment type		<ul style="list-style-type: none"> Office size : 16m², 5pyeong Office Location and Environmental Information : Located in a semi-basement with no windows in a general two-story house Office Hours by individual : an average of two hours a day (Different individuals work and rest hours)
Employee characteristics and Physical examination	Physical examination type	<ul style="list-style-type: none"> Pre employment Physical examination : none Regular Physical examination and management : none
	Total number of employees	<ul style="list-style-type: none"> Food delivery driver 7 people (Include indicator patients) Transportation : Motorcycle
	Age	<ul style="list-style-type: none"> 40~49 : 4 (Include indicator patients) 50~59 : 3

Table 3. The results of the contact investigation

Characteristics	Microbiological study			LTBI tests and treatment		
	Chest x-ray	TB	LTBI tested	LTBI	Initiated LTBI treatment	Completed LTBI treatment
All employees (close contact)	6	0	6	6 (100.0)	6 (100.0)	6 (100.0)
Total	6	0	6	6 (100.0)	6 (100.0)	6 (100.0)

*LTBI : latent tuberculosis infection