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Pulmonary co-infection with *Actinomyces odontolyticus* and *Mycobacterium kansashii*

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Dear Editor,

We read with interest the article by Balis *et al*. on pulmonary tuberculosis and actinomyces co-infection as a lung mass [1]. We would like to share our experience. A 76-year-old woman was referred to our hospital due to sputum and cough. These symptoms had developed two years previously. The patient had no medical history except for femur fracture and myoma uteri, which were surgically treated. She had no smoking habit. Physical examination was unremarkable. Chest computed tomography (CT) scan of the chest showed consolidation, granular and ground glass opacities in both lungs (Figure 1). A sputum culture test repeatedly detected *Mycobacterium kansashii*.

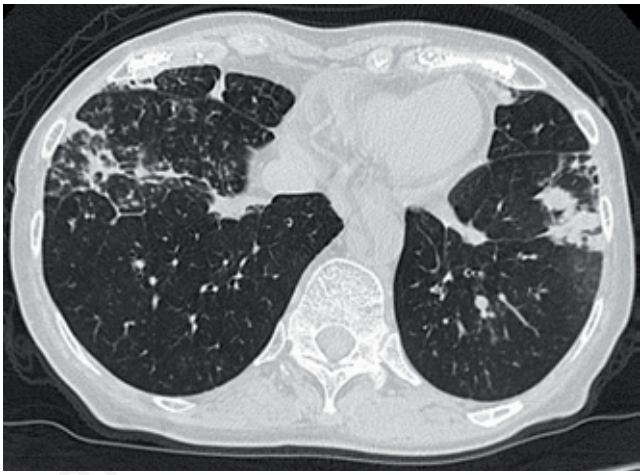

Figure 1. Chest computed tomography scan of the chest showed consolidation, granular and ground glass opacities in both lungs.

In addition to this organism, *Actinomyces odontolyticus* was confirmed in the culture of the recovered lavage fluid. After receiving penicillin antibiotics, the patient was also treated with *M. kansasii*. Improvement of symptoms and reduction of opacities on the chest image were confirmed. This good condition of the patient is maintained and she is currently being followed up at an outpatient clinic 20 months after diagnosis.

Actinomyces are gram-positive anaerobic or microaerobic bacteria and are the main constituents of indigenous oral bacteria. However, respiratory tract infections caused by *A. odontolyticus* are rare [2]. Balis *et al*. reported pulmonary tuberculosis and *actinomyces* co-infection [1]. None of the 9 patients searched by them had *A. odontolyticus* co-infection. To our best knowledge, there has been no report on co-infection with *Mycobacterium* and *A. odontolyticus*. There was only one case report of co-infection including *A. odontolyticus* [3]. The co-infection of this patient was that with *Parvimonas micra*. This microorganism is a Gram-positive anaerobic coccus that constitutes the oral flora. This patient had a lung abscess that progressed to acute respiratory failure. In our patient, co-infection was considered to be sinopulmonary infection due to subclinical aspiration rather than hematogenous or lymphogenous infection. If the presence of the bacterium can be confirmed in the sample collected by bronchoscopy, it is highly possible that it is a pathogenic bacterium. Therefore, bronchoscopy is considered to be highly useful. Although extremely rare, co-infection with these microbial are possible. It is necessary to pay attention to contamination and to carry out an accurate diagnosis by collecting materials from appropriate sites.

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