

Pulmonary Infection of *Tatumella Ptyseos* Developed on The Background of Pulmonary Tuberculosis*

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Members of *Enterobacteriaceae* family are Gram negative, oxidase negative and fermentative enteric bacilli. *Kluyvera*, *Cedeceae*, *Koserella*, *Leminorella*, *Ewingella*, *Rahnella* and *Tatumella* are included in this family after the recent arrangements of classification. Among these, *Ewingella*, *Rahnella* and *Tatumella* species were formerly named as *Pantoea (Enterobacter) agglomerans*, because of being decarboxilase negative. The only member of *Tatumella* species is *Tatumella ptyseos*. Its biochemical properties are being indole, urease, methyl red, Voges-Proskauer and gelatinase negative, and phenylalanine deaminase, sucrose and catalase positive. Additionally, in contrast with *P. agglomerans*, it is mannitol negative, and immotile and resistant to penicillin at 36 °C (1-3).

Tatumella ptyseos was mostly reported to be found in the specimens obtained from respiratory tract, with an isolation ratio of 68 % in the sputum of these cases. Besides, it was isolated in the blood cultures of neonatal sepsis cases (4-6).

Gentamycin, amikacin, kanamycin, tetracycline, chloramphenicol, ampicillin, tobramycin cotrimaxasol and cephalotin are effective on *Tatumella ptyseos* in-vitro, and thus preferred in the treatment of the infections by this organism (4,6).

Case report

A 59- year-old farmer applied to the hospital with a history of increasing cough, sputum and thoracal pain for the last 10 days. He reported 5-10 ml of white, odorless sputum especially in the mornings. He had lost 5 kg during the last month but not experienced hemoptysis or fever during this time. He was a regular smoker (20 a day). Four years ago he was diagnosed to have tuberculosis and received regular therapy for one year. He had no complaints since then.

The patient with a history of tuberculosis was admitted for evaluation of sputum and cough. On examination, his temperature was 36.2°C, pulse was 82/min, and the respiration were 24/min. The Blood pressure was 110/70 mm Hg. The Patient's Haemoglobin concentration was

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11.6 g/dl, haematocrit 35.3 %, white blood cell count 5600/mm³ and his erythrocyte sedimentation rate was 70 mm/h. Other laboratory tests were normal. Chest radiography showed elevated right hilus, tracheal displacement to right, shadows of fibrosis on right apex, and pleural thickening (Figure 1).

Cytological examination of the sputum revealed no malignancy. Acid resistant bacteria (ARB) staining by Erlich Ziehl Nielsen (EZN) technique was negative, although repeated 5 times. No growth was seen in tuberculosis culture media.

Ampicillin-sulbactam was preferred for the treatment, considering the case as pulmonary (nonspecific) infection that developed on the background of tuberculosis.

Tatumella ptyseos was identified from the nonspecific culture of sputum by Sceptor analyzer (Becton-Dickinson). Antimicrobial resistance test by microdilution procedure in the same analyzer showed that the microorganism was sensitive to penicillin and cephalosporines but resistant to tetracycline. Treatment was continued for one more week after clinical and radiological improvement (Figure 2-3).

Discussion

Tatumella ptyseos causes infection usually in patients with impaired immunity, mainly those with diabetes, and tuberculosis. Newborn and elderly are also among the vulnerable groups (7,8).



Figure 1. Chest radiography before the treatment

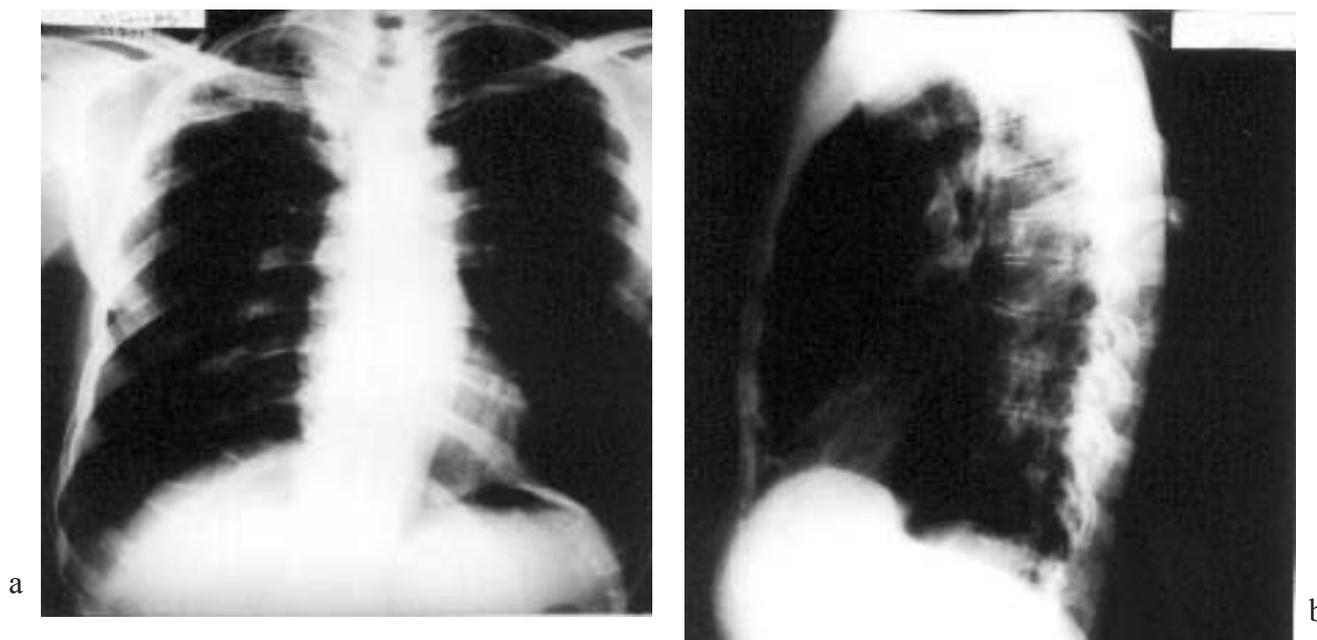


Figure 2a, 2b. Chest radiography after the treatment



Figure 3. Thoracic CT scan of the patient

A few *Tatumella ptyseos* infections from various part of the world have been reported in the related literature. It was isolated in the blood culture as the cause of neonatal sepsis in a baby with jundice by Tan et al (6) in Malesia in 1989. There are also some studies reporting that it was found in respiratory tract as a cause of oportunistic infections (4,5).

To our knowledge, no infection with this agent was reported in Turkey. We believe that this first case warns us to consider it in the investigation of nonspecific respiratory tract infections.

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