



COMBINATION OF PULMONARY TUBERCULOSIS AND ACTINOMYCOSIS. THE UNUSUAL SUSPECTS. A RARE CASE OF CO-INFECTION WITH PULMONARY TUBERCULOSIS AND ACTINOMYCOSIS.

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Objective:

Background: Actinomycosis is generally a polymicrobial infection (1). Co-pathogens commonly reported in pulmonary actinomycosis include *Actinobacillus actinomycetemcomitans*, *Streptococcus* spp., and *Haemophilus* spp. (1) The co-infection with tuberculosis is extremely rare. (2) This paper presents a patient with *Actinomyces odontolyticus* and *Mycobacterium tuberculosis* co-infection.

Case report: A 45-year-old woman was hospitalized due to fever, productive cough, and dyspnea. A few weeks earlier she had had surgery for a dental abscess. Initial laboratory testing showed



leukocytes of $6.6 \times 10^9/L$ (neutrophils 77, lymphocytes 15.3, eosinophils 0.5 and monocytes 6.5%) and CRP of 9.7 mg/L. Lung auscultation was pathological

with crackles over the right lung. The chest X-ray revealed consolidation of the middle and upper lobes of the right lung and scar tissue in upper lobe of the right lung. There were also multiple nodules in superior segment of the lower right lobe, with areas of destruction. Chest CT scan revealed reduced volume of the right upper lobe with bronchiectasis along, multiple nodular cavitations measuring 3 cm in diameter in the right lower lobe, consolidation of the medial segment of the middle lobe and signs of bronchiolitis. Microbiological analysis of sputum was negative. Bronchoscopy was performed. Bronchoalveolar lavage culture was positive for *M. tuberculosis* and *Actinomyces odontolyticus*. Treatment was started with penicillin G and quadruple anti-tuberculosis regimen with isoniazid, rifampin, ethambutol and pyrazinamide. After twelve days of treatment, control chest X-ray showed partial regression of consolidation of the upper and middle lobe of the right lung.

Conclusion: Pulmonary actinomycosis is a rare disease. Pulmonary involvement takes approximately 15% of all actinomycosis cases, and usually develops due to aspiration of organisms from the oropharynx. Alcoholism, poor oral hygiene, dental disease, and facial or dental trauma are important risk factors for the thoracic form. In the literature, there are few reported cases with concomitant tuberculosis and actinomycosis. Considering that both of these infections require long term treatment, patient will receive parenteral penicillin for six weeks and anti-tuberculosis therapy for at least for six months.



Key words: Actinomyces odontolyticus, Mycobacterium tuberculosis

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