











## A Rare Case of Laryngeal and Pulmonary Actinomycosis Co-infection

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### Abstract

**Background:** Actinomycosis is an indolent, slowly progressive infection caused by non acid fast, gram positive, anaerobic or microaerophilic bacteria. The most common site of actinomycosis infection is cervicofacial region. Bacteriologic identification from infected site or detection of sulfur granules confirms the diagnosis. We report a rare case of simultaneous infection of larynx and lungs actinomycosis with various radiologic manifestations including diffuse right lung cavitation as a very rare finding.

**Case report:** A 77-year-old man was admitted with complaints of fever and productive cough and weight loss, for one month, from the time he had been undergone open heart surgery. On that time, after surgery, he had been intubated for a long time because of decreased level of O<sub>2</sub> saturation. Respiratory failure reason was not determined, so laryngeal CT scan was done with suspicious to a pathological lesion; it showed a mass in the larynx. Pathological findings of the laryngeal biopsy showed sulfur granule formation of actinomyces. Lung spiral CT scan revealed speculated margin pulmonary nodules with fibrotic changes and cavitory lesion. Pathology of lung biopsy showed; multiple granuloma consist of epithelioid and mononuclear cells with fibrosis, there were no sign of caseous necrosis or fungal infection in PAS staining and no acid fast bacilli were seen. Cytological evaluation for malignancy was also negative. He was treated with high dose of penicillin and in his follow up, he clinically and paraclinically got better.

**Conclusion:** Although pulmonary and laryngeal actinomycosis is rare, but should be considered in recurrent and persistent infections specially in patients with history of long stay hospitalization. It is in differential diagnosis with the all chronic lung infections and malignancies. Because of good response to appropriate antibiotic therapy and preventable complications, early diagnosis is mandatory.

**Key words:** Actinomycosis, Larynx, Pulmonary disease.

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