Always Remember to Floss... or Else

Arunmozhi (Sankavi) Aravagiri MD  
HCA Healthcare, Arunmozhi.Aravagiri@hcahealthcare.com

Muhammad Zain MD  
HCA Healthcare, Muhammad.Zain@hcahealthcare.com

Rajesh Gulati MD  
HCA Healthcare, rajesh.gulati@hcahealthcare.com

Follow this and additional works at: https://scholarlycommons.hcahealthcare.com/internal-medicine

Part of the Bacterial Infections and Mycoses Commons, Internal Medicine Commons, and the Respiratory Tract Diseases Commons

Recommended Citation
Always Remember to Floss...or Else

Arunmozhi Aravagiri MD
Muhammad Zain
Rajesh Gulati
Scott Kubomoto
Napatkamon Ayutyanont PhD

See next page for additional authors

Follow this and additional works at: https://scholarlycommons.hcahealthcare.com/pubclear

Part of the Medical Education Commons
Authors
Arunmozhi Aravagiri MD, Muhammad Zain, Rajesh Gulati, Scott Kubomoto, Napatkamon Ayutyanont PhD, and Cindy Ramos-Corner
Always Remember to Floss…or Else
Arunmozhi Aravagiri MD, Muhammad Zain MD, Rajesh Gulati MD
Internal Medicine Residency – Riverside Community Hospital / UC Riverside School of Medicine

**Introduction**

Actinomyces is a Gram positive bacteria that is part of the normal flora of the oral cavity, gastrointestinal tract, and genital tracts. Actinomycosis, can mimic granulomatous diseases, therefore distinguishing this infection from fungus, malignancy, or tuberculosis can be quite difficult. This case looks into an uncommon presentation of actinomycosis.

**Case description**

A 38 year old male with history of a dental procedure who resided in China from 2010 to 2018, presented with three months of productive cough, occasional hemoptysis, fevers, night sweats, and fifteen pound unintentional weight loss. He had presented to urgent care multiple times prior to admission with symptoms recurring after a short course of antibiotics. CT scan of the chest revealed right upper lobe consolidation with necrosis and cavitation (12 x 9 x 7 cm) with moderate mediastinal lymphadenopathy, and minimal right-sided nodular interstitial opacities. Bronchoscopy revealed friable mucosa and yellow purulence with no endobronchial lesion nor obstruction. There was concern for possible underlying immunocompromised state given that actinomyces infection is unusual in a supposed immunocompetent patient. However, immunoglobulin panel, peripheral blood smear, and complement levels all without evidence of immunocompromised state in this patient. During his hospital course, he continued to have severe cough with some mild hemoptysis, but one episode of severe hemoptysis with clots. Therefore, CT guided biopsy of the right upper lobe mass was done which revealed acute and chronic inflammation and fibrosis with organisms suggestive of Actinomyces. Upon further investigation, patient reported that he had a periodontal cyst 2016 that required surgery in China, followed by an episode of bronchitis for a few months after the surgery. Furthermore, imaging also revealed patient had an anatomical abnormality, a large and tortuous bronchial artery, usually a structure that is not seen on imaging, which likely contributed to his significant hemoptysis.

**Discussion**

Actinomyces is an invasive bacteria that can cause serious infections usually in elderly and in immunocompromised patients. Pulmonary actinomyces is extremely rare in the general population, and has a bimodal age distribution with earlier peak at ages eleven to twenty years old, and clear peak incidences at fourth and fifth decade of life. There are very few case reports of actinomycosis in a young immunocompetent patient, especially in this case where the infection disseminated from the oral flora to the lung.

**References**