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Actinomyces Infection in a Post-TB Cavity: A case report

Abstract:

Background: Actinomyces is a chronic bacterial infection caused by gram positive, anaerobic bacilli, commonly affecting the oral cavity, gastrointestinal, and urogenital tract. Pulmonary actinomycosis is uncommon, compromising only 15% of cases, and is misdiagnosed due to its resemblance to malignancies or fungal infections. Post-Tuberculous (Post-TB) cavities serve as breeding ground for secondary infection, particularly fungal, with bacterial infections being rare.

Case: We present a 56 year old male with a history of TB in the right upper lung (RUL), who developed pulmonary actinomyces in a Post-TB cavity. He presented with a complaint of hemoptysis and had comorbidities like poorly controlled diabetes mellitus, hyperlipidemia, and smoking history. Chest CT showed a “tree in bud” appearance in the RUL cavity. Pulmonary functions tests showed obstructive changes. A biopsy was taken which confirmed actinomyces. The patient was treated with IV ceftriaxone for 4–6 weeks, followed by oral Augmentin for 1.5 years. Clinical improvement was noted on followup.

Conclusion: This case emphasizes the rare development of actinomyces in a post-TB cavity, highlighting the need of histopathological diagnosis in patients with cavitary lung disease. Due to the risk of misdiagnosis and inappropriate therapy, actinomyces should be considered in chronic lung disease patients presenting with hemoptysis and cavitary lesions, especially in TB endemic areas. A multidisciplinary approach is important for optimal management.

Biography

Fahad Amin Khan is a fourth-year medical student at Shifa College of Medicine with a strong interest in internal medicine and research. He has presented a poster at an international conference and is dedicated to advancing his medical education and clinical expertise.