

# Typical Imaging Findings Of TB in an Old Patient with IPF

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**Introduction:** The diagnosis of pulmonary TB should be suspected in patients with relevant clinical manifestations and epidemiologic factors, history of TB infection, known or possible TB exposure, past or present residence in or travel to an endemic area. Older patients aged 65 years or more had fewer “classical” clinical and radiological presentations of TB. Idiopathic pulmonary fibrosis (IPF) is a progressive fibrotic lung disease without a clear etiology. TB in IPF subjects has also been shown to be difficult to diagnose and the typical locations of reactivated PTB has been shown to be significantly less often involved in the IPF group. We present a geriatric patient with IPF which had delay in diagnosis of TB due to atypical imaging findings for TB.

**Case Report:** A 76-year-old southeast Asian male, immigrated to the USA more than 20 years ago with PMH of IPF presented with SOB, cough, fever and weight loss. At the first office visit, xray was obtained which showed left upper lobe infiltrate. The patient started on antibiotic for community acquired pneumonia, symptoms did not improve and at the second office visit, chest CT scan obtained which showed consolidation in left upper lobe, treatment continued for CAP. After the 3rd visit the patient admitted to the hospital, chest CT scan again showed consolidation concerning for pneumonia and evidence of usual interstitial pneumonia suggestive of IPF. Treatment continued for CAP. He was discharged and readmitted to another hospital due to the worsening of his symptoms, persistent cough and episode of hemoptysis. Bronchoscopy and BAL were done. AFB culture was positive x3 for Mycobacterium tuberculosis complex and MTB PCR was detected. The patient was started on the four drug TB regimen.

**Conclusion:** The global population is ageing quickly and our understanding of age-related changes in the immune system suggest that the elderly will have less immunological protection from active TB. TB in the elderly presents with fewer of the classical symptoms of TB and less specific radiological changes than in younger patients. The atypical manifestation of pulmonary TB is also common in patients with IPF. Anchoring bias may lead to delay in TB diagnosis, especially with atypical clinical presentations and imaging findings for TB.