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Concomitant subclinical pulmonary tuberculosis in patients with extra-pulmonary tuberculosis

Abstract:

Concomitant subclinical pulmonary TB (PTB) in extra-pulmonary TB (EPTB) patients poses a significant challenge. Undiagnosed due to absent respiratory symptoms, it facilitates silent *Mycobacterium* tuberculosis transmission and complicates treatment. Early detection is crucial for optimizing patient management, preventing disease progression, and mitigating community spread, highlighting the need for enhanced diagnostic strategies and clinical vigilance in high-burden areas.

This study aimed to determine the prevalence of pulmonary tuberculosis (PTB) in extra-pulmonary tuberculosis (EPTB) patients who lacked respiratory symptoms. Key objectives included identifying this concomitant subclinical PTB through comprehensive clinical, radiological (CXR and CECT), and microbiological screening, and characterizing the socio-demographic profile of affected individuals. Sixty-two newly diagnosed EPTB patients, aged over 12 and asymptomatic for pulmonary disease, were enrolled. Participants underwent CXR, sputum tests (AFB smear, LJ culture, Gene-Xpert MTB), and CECT chest. Routine blood work and sociodemographic data were also collected.

38.7% with extrapulmonary tuberculosis (EPTB) also had concomitant subclinical pulmonary tuberculosis (PTB). Chest X-rays showed abnormalities in 59.7% of cases, with 17.7% suggestive of PTB. Microbiological tests like sputum AFB smear, Gene-Xpert, and culture had low positivity rates. Contrast-enhanced CT (CECT) of the chest was the most effective diagnostic tool, identifying PTB in 38.7% of patients. Subclinical PTB was more prevalent in males, smokers, alcohol users, and those from lower socioeconomic backgrounds.

Biography

Gude Tejaswini, an alumna of Maulana Azad Medical College (MBBS), is currently pursuing her MD in Internal Medicine at University College of Medical Sciences (UCMS), Delhi. Demonstrating a well-rounded engagement, she served on her college magazine's editorial board and was an active member of the Resident Doctors' Association at UCMS.