

COMPARISON OF CLINICAL AND LABORATORY FINDINGS BETWEEN THOSE WITH PULMONARY TUBERCULOSIS AND THOSE WITH NONTUBERCULOUS MYCOBACTERIAL LUNG DISEASE

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Abstract. In tuberculosis endemic areas, patients with sputum positive for acid-fast bacilli (AFB) are usually diagnosed and treated for pulmonary tuberculosis. The diagnosis of nontuberculous mycobacteria (NTM) lung disease is often ascertained only after lung disease progression occurs, increasing the risk of severe morbidity and mortality. We conducted a matched case-control study among a prospective cohort of 300 patients with newly diagnosed AFB-positive sputum in Thailand during 2010-2012. We compared clinical and laboratory parameters and outcomes among patients with pulmonary tuberculosis, NTM lung disease and NTM colonization. A mycobacterial culture was performed in all patients. Ten patients with NTM lung disease were compared to 50 patients with pulmonary tuberculosis and 10 patients with NTM colonization. The presence of diabetes mellitus or human immunodeficiency virus infection, were associated with NTM lung disease ($p = 0.030$). Patients with NTM lung disease had a significantly lower body weight prior to treatment ($p = 0.021$), a higher body weight change from baseline ($p = 0.038$), and were more likely to have cavitations on chest radiograph ($p = 0.033$) than those with NTM colonization. In tuberculosis endemic areas, mycobacterial identification should be performed among patients with impaired immune function. NTM lung disease treatment should be considered in patients with NTM sputum isolates who have a history of significant weight loss or cavitations on chest radiography.

Keywords: matched case-control study, NTM colonization, sputum

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