ABSTRACT

Association Positivity of Nontuberculous Mycobacteria (NTM) and Severity Pulmonary Tuberculosis Patients

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Purpose: The research aims to detect a positive association between Nontuberculous Mycobacteria and the severity of pulmonary Tuberculosis patients and to find out what species of NTM is detected in patients with pulmonary TB.

Method: This study was conducted 40 isolates Mycobacteria at laboratory Clinical Microbiology Soetomo Hospital from patient TB. Colonies were then examined using immunochromatographic antigen MPT 64, then a molecular test was performed using PCR and sequencing.

Result: The result showed from 40 samples were used, 20 isolates were NTM and 20 M.tuberculosis complex. Sequencing of 20 samples were positive by PCR 116SrRNA, and detected Mycobacterium kansasii (30%), Mycobacterium gordonae (5%), Mycobacterium parascrofulaceum (2,5%), Mycobacterium simiae (2,5%) Mycobacterium avium (2,5%), Mycobacterium terrae (2,5%). Clinical severity by Bandim TB score from patients medical record showed a significant association between positivity of NTM detection and the severity among Tuberculosis patients, with p value =0.03.

Conclusion: This finding suggest that NTM infection detection is associated with disease severity of pulmonary TB.

Key word: Nontuberculous Mycobacteria, Severity Class, Tuberculosis