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Il-4 in Peripheral Blood Mononuclear Cells and Bronchoalveolar Lavage Patients with Pulmonary Tuberculosis Before and After Treatment with Oral Anti-Tuberculosis Drugs

1. JF Palilingan --> Department of Pulmonology, Airlangga University School of Medicine, Dr Soetomo Teaching Hospital, Jl Prof Dr Mustopo 6-8, Surabaya / jfp@telkom.net

Abstract

Reports on Th1 and Th2 cytokines in human tuberculosis are conflicting. The aim of the present study was to determine the profile of the Th2 immune response in pulmonary tuberculosis during treatment. Twelve male patients with M. tuberculosis culture positive pulmonary tuberculosis were studied. IL-4 cytokine was measured by ELISA from culture of peripheral blood mononuclear cells and bronchoalveolar lavage fluid cells with purified protein derivative (PPD). Only nine patients completed the study. The result of IL-4 in PBMC before treatment after challenged with PPD was 21.69 pg/ml and after treatment with oral anti-tuberculosis (OAT) was 6.24 pg/ml. The result of IL-4 in BAL fluid after challenged with PPD was 5.57 pg/ml and after treatment with OAT was 9.17 pg/ml. Changes in the IL-4 cytokine profile to Th1 in PBMC patients after treatment conflicted with the result from the BALF cells. This study showed that in these patients the Th2 immune response still present at the site of the disease.

Keyword : pulmonary, tuberculosis, Th1/Th2, IL-4, PBMC, BALF,

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