

European Respiratory Society Annual Congress 2013

Abstract Number: 957

Publication Number: P4431

Abstract Group: 10.2. Tuberculosis

Keyword 1: Tuberculosis - mechanism **Keyword 2:** Child **Keyword 3:** Immunology

Title: Intracellular cytokine and cathelicidin secretion from monocytes and neutrophils in childhood lung tuberculosis and its relationship with vitamin D levels

Dr. Erkan 6559 Cakir erkancakir1@yahoo.com MD ¹, Dr. Emel 6560 Torun dr.emeltorun@gmail.com MD ², Dr. Esin 6561 Cetin Aktas esinaktas@yahoo.com MD ³ and Prof. Gulnur 6562 Deniz gdeniz@istanbul.edu.tr MD ³. ¹ Pediatric Pulmonology, Bezmialem Vakif University Faculty of Medicine, Istanbul, Turkey ; ² Pediatrics, Bezmialem Vakif University Faculty of Medicine, Istanbul, Turkey and ³ Institute of Experimental Medicine (DETAE), Department of Immunology, Istanbul University, Istanbul, Turkey .

Body: Introduction: Vitamin D3 contributes to host immune responses against Mycobacterium tuberculosis through antimicrobial peptide human CAP 18+ (cathelicidin). We aim to identify the intracellular cytokine and cathelicidin secretion from monocytes and neutrophils of active TB in children. Material- methods: Fifteen TB patients and 15 healthy children were enrolled to the study. Patients' biochemical parameters and 25 hydroxyvitamin D were measured. The expression of human cathelicidin, TNF α , IF- γ and IL-8 from monocytes and neutrophils were analyzed by flow cytometry method in the serum. Results: The expression of IL-8 and cathelicidin from CD14 + monocytes were significantly higher in TB patients (p=0.0001).

There was no difference in IL-8 and cathelicidin expression in CD 15+ neutrophils in both groups in the appropriate concentrations of vitamin D. The expression of TNF α and IF- γ from CD14 + monocytes and CD 15+ neutrophils, in both study and control groups revealed no statistical difference.