

ABSTRACT**Level of Zinc Serum, Levels of Retinol, Macrophages and Lymphocytes Count In Children Tuberculosis and Non Tuberculosis**

Zinc is one of the mineral essential for human beings. The presence of zinc in our body will greatly affected immune function, it would be a key role in infectious diseases including tuberculosis, it also important in metabolism and transport of vitamin A. Vitamin A can increase the durability of the body against infectious diseases such as TB (tuberculosis). This research aimed to analyzed the differences in the levels of zinc serum levels, levels of retinol, macrophages and lymphocytes count in children tuberculosis and non-tuberculosis. This research is observational used cross sectional study which the population was all children and their families in Sidoarjo hospital. The subject were children at six to twelve years old with total subject were 22 subject divided to 11 subject of tuberculosis and 11 subject non tuberculosis. analyzing data used chi square test. The result showed that there was significant difference in levels of zinc serum, levels of retinol, lymphocytes count lowered and macrophage count higher on the child with tuberculosis. The conclusion was found that levels of zinc serum, level of retinol, lymphocytes lowered and macrophage count higher on the child with tuberculosis. It was recommended to improve intake nutrition on children tuberculosis especially food containing zinc and vitamin A, so the incidence of tuberculosis can be lowered.

Keywords: zinc serum and retinol level, machropage and lymphocyte count, tuberculosis