

## ABSTRACT

### **Epidemiological Determinants Increase Antibody Titer Leprosy Specific to Patients Leprosy Sub Clinical in Sumberaji Village District Lamongan**

Leprosy position is important in the prevention of subclinical leprosy as potential candidates for the lepers that can act as a source of infection and can be used as a way to prevent transmission of leprosy. Leprosy Serologic studies conducted by Leprosy Laboratory Institute of Tropical Disease (ITD), Airlangga University Surabaya in SDN Sumberaji Lamongan in 2007 found 45.8% of patients had subclinical leprosy and serum all survey respondents are still stored in the ITD. Number of patients with subclinical leprosy in SDN Sumberaji is high so that the research is necessary to know its development after 5 years. The purpose of this study was to analyze the epidemiological determinants that influence the increase in specific antibody titers in patients with subclinical leprosy village in the Sumberaji village in Lamongan. The method used is use observational analytic with cross sectional study. The research sample number 41 children with leprosy specific antibody IgM titer > 600 U / ml of examination results 2007. Samples taken were samples of vein virgin child, then do serology of leprosy by indirect ELISA method in ITD Airlangga University, where samples of 2007 are still in store at ITD Airlangga and sampled in 2013 examined together to determine specific antibody IgM titer rise leprosy. Studied variables such as age, sex, BCG immunization, nutrition, natural lighting, residential density, parental knowledge, parental income, contact history, personal hygiene and water used. To determine the effect of the variable to the rise in IgM leprosy antibody titers of specific statistical tests used Multiple Logistic Regression. From the results of serology of leprosy (indirect ELISA) in samples that get results IgM of leprosy specific antibody titers increased as much as 41.46% (17 samples). From the results of multiple logistic regression statistical analysis results obtained effect of natural lighting and nutritional status (BMI) to the increase in IgM of leprosy specific antibody titer. It also found the fact that the mean titer IgM of leprosy specific antibodies were examined Year 2007 with a specific of leprosy antibody IgM titer in 2007 which was re-examined in 2013 decreased from 1226.6 U / ml to 910.7 u / ml. This is probably caused by the tools used (spectofotometer) different.

**Keywords: IgM, antibodies specific leprosy, epidemiological determinants, Sumberaji**