

ABSTRACT**PROFILE SEROTYPE AND GENOTYPE OF DENGUE VIRUS AND
CLINICAL MANIFESTATIONS
IN CHILDREN PATIENTS IN SOUTH EAST SULAWESI****Zida Maulina Aini**

Dengue fever is currently the most important mosquito-borne viral disease in Indonesia. In Southeast Sulawesi province, most regions report dengue cases including the capital city, Kendari. Currently, no information is available on the serotypes and genotypes of the viruses circulating in the area. The aim of this study was to analyze the relationship between clinical manifestations of *Dengue* virus infection and identification of *Dengue* virus serotypes/genotypes in children patients from Bahteramas General Hospital, Aliyah Hospital, Santa Anna Hospital and public health care Poasia in Kendari, in Southeast Sulawesi province. This is a cross sectional study by using observational analytic method. Clinical diagnosis of DENV infection was determined by using the WHO 1986 classification. Determination of DENV serotypes was conducted by RT-PCR and gel electrophoresis. Determination of were enrolled, and 39 samples of them were examined for NS1 and IgM/IgG test. The results showed that 7 samples had antigen NS1 positive. IgM-/IgG- was predominant (84,5%), followed with IgM-/IgG+ (10,3 %) and IgM+/IgG- and IgM+/IgG+ (2,6 % respectively). Of 9 samples, there were 6 samples infected by primary infection with DHF grade 2 (83%) and grade 1 (17%), and the rest with secondary infection with DHF grade 2 (67%) and grade 3 (33%) Of 30 samples with positive PCR products, DENV-3 (genotype I) was the most predominant. Interestingly, there are 4 (13.3%) samples with coinfection of DENV-3 and DENV-1. DHF grade 2 was predominant (76.7%), followed by DHF grade 3 (1.3%) and DHF grade 1 (10%). No DHF grade 4 was obtained. DHF grade 3 cases were associated with secondary infections and coinfection However, the clinical manifestations of DENV infection was not correlated with DENV serotypes/genotypes ($p=0.99$). Conclusion : Serotyping revealed that *Dengue* virus serotype 3 (DENV-3) was the most predominant serotype and there were coinfection of DENV-3 and DENV-1. DHF grade 2 were predominant in South East Sulawesi, however there is no correlation between the serotype and its clinical manifestation.

Keyword : *DENV-3, Coinfection, Southeast Sulawesi, Serotyping*