



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

THE PROFILE OF POLYMORPHISM -308TNF-A AND -819IL-10 GENES WITH LEPROSY AND ERYTHEMA NODOSUM LEPROSUM IN SOUTH SULAWESI PROVINCE, INDONESIA

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Introduction: The polymorphisms of cytokine pro and anti inflammatory genes might affect predisposition and susceptibility to leprosy and have different clinical outcomes. In South Sulawesi Province, Indonesia, the high Prevalence Rate still becomes one of the health problem (1,29/10000).

Objective: To assess the polymorphisms profile G308A TNF- α and C819T IL-10 genes occurs in leprosy and ENL patients

Material and Methods: The study subject is 54 persons consists of 18 ENL, 18 leprosy and 18 healthy control. The subject taken from the Dermatology Services of Health Departement of South Sulawesi within 6 months that suffers leprosy by skin smear and histopathologically. The control is healthy member of the patient's family. With Restriction Fragment Length Polymorphism - Polymerase Chain Reaction (RFLP PCR). The promotor genes use specific primer producing fragment product DNA 231 and 244 base pair.

Results: The genotype expression of 308-TNF- α gene, GG (88,9%) in ENL, (100%) in leprosy, (88,9%) in control group. The polymorphism gene i.e GA (5,56%) AA (5,56%) in ENL, (0%) in leprosy. In GA (11,11%) AA (0%) in control group. Statistically, no association between polymorphism 308-TNF- α gene on leprosy and ENL ($p>0,05$).

The genotype expression of 819-IL-10 gene, TT (50%) in ENL, (44%) in the leprosy, (94%) in control group. The polymorphisms gene i.e CT (44%) CC (5,56%) in ENL, CT (50%) CC (5,6%) in leprosy. In CT (5,6%) CC (0 %) in control group. Statistically, there are association between polymorphism 819 IL-10 gene on leprosy and ENL ($p<0,05$).

Conclusion: The polymorphism profile -308TNF- α and -819IL-10 gene shows association between polymorphism 819 IL-10 gene on leprosy and ENL, and no association in 308TNF-





a gene. Further study is required with the number of subject.

