The correlation of CYP17 gene polymorphism and increase of sebum level on acne vulgaris

Acne vulgaris (AV) is a chronic inflammatory disease on human's follicle sebaceous gland. Etiology of AV has not been conclusively identified. Generally AV is considered as a multifactorial disease, of which genetic factor is thought to have influential role. The research was intended to explore CYP17 gene polymorphism and increasing of sebum level on mild and severe AV patients. It applied explorative method, conducted in Dermatology and Venereology Clinic of Wahidin Sudirohusodo General Central Hospital Makassar. There were total 43 samples, consisted of 22 severe AV and 21 mild AV patients. Sebum levels were measured using Sebumeter. Blood samples were taken from all patients as much as 1 µL. Polymerase Chain Reaction-Sequencing (PCR-sequencing) was used to detect existence of CYP17 gene polymorphism, genome group was observed and the results of the genotype and allele frequencies were compared with sebum level. Genotype distribution group was compared with previous researches. The results showed that proportion of T gene CYP17 allele frequency is higher than allele C, indicated that T gene CYP17 allele may serve as a risk factor for severe AV cases in Makassar. The genotype frequency towards increase of sebum level revealed that TC is two times larger than TT genotype and five times larger than CC genotype, therefore TC genotype was considered as a risk factor for higher sebum level.

Biography

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