

Association Study between Psoriasis Vulgaris and Polymorphism of the Gene Coding for Tumor Necrosis Factor Alpha in a Lebanese Population

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ABSTRACT

Introduction: Psoriasis is an immune-mediated skin disorder that is prevalent worldwide in men and women. It is a multifactorial disease influenced by genetic and environmental factors. Tumor Necrosis Factor Alpha (TNF-alpha) is an important pro-inflammatory cytokine involved in the pathogenesis of multiple immune diseases. We performed a case-control association study of a TNF-alpha gene polymorphism in a group of patients with Lebanese psoriasis vulgaris compared to another control group.

Material and methods: Twenty patients with psoriasis vulgaris (M/F: 6/14, mean age 32 years) were recruited between January 2018 and February 2018. The control group consisted of 20 unaffected individuals with no types of psoriasis. The genomic DNA was extracted from the peripheral whole blood according to the protocol of the DNA extraction kit (Macherey-Nagel, Germany). TNF- α -308 gene polymorphisms analyzed by (PCR-RFLP).

Results: The gene mutation results for psoriasis patients show that TNF alpha-308 GG genotype was found in 72% in control and 67% in patient group, GA genotype was detected in 19% of control group and 22% in patient group, AA genotype was not detected in both groups.

Discussion: The present study shows that the gene polymorphism TNF-alpha 308 is not associated with susceptibility to psoriatic vulgaris in the Lebanese population. These results require additional validation on a larger group of patients.

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