INFLAMMATORY SKIN DISEASES (OTHER THAN ATOPIC DERMATITIS & PSORIASIS)

THE ROLE OF IL-17 GENE POLYMORPHISMS IN THE ETHIOPATHOGENESIS OF BEHÇET'S DISEASE AND THEIR IMPACT ON DISEASE ACTIVITY

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Background: Behçet's disease (BD) is a systemic inflammatory disease of unknown etiology characterized by recurrent oral aphthae, genital ulcers, ocular inflammation and skin lesions. In recent years, the role of cellular immunity in the pathogenesis of BD has been extensively investigated with respect to T cells and cytokines. IL-17 is a novel cytokine which has been shown to play an important role in certain autoimmune diseases.

Objective: We aimed to analyze the influence of IL-17 gene polymorphisms on disease susceptibility and clinical manifestations of BD.

Materials and Methods: A prospective study was carried out on 60 patients with BD who were referred to Okmeydanı Training and Research Hospital Dermatology clinic and 60 control subjects. Each patient's clinical characteristics were noted and patients were classified as active and inactive disease. Single nucleotide polymorphisms (SNP) in the IL-17A rs2275913 and IL-17F rs763780 genes were analyzed using polymerase chain reaction (PCR). The genotypes between patients and controls were compared.

Results: The genotype distributions of the two SNPs did not differ significantly between patients and controls. However, the frequency of IL-17A rs2275936 AA genotype was significantly higher in patients with ocular involvement as well as in patients with a family history of BD ($p<0.01$, $p=0.011$, respectively). IL-17F rs763780 CC polymorphism was significantly more frequent in patients with pathergy test positivity ($p=0.049$).

Conclusions: Although the IL-17 gene SNPs were not associated with a susceptibility to BD in our population, patients carrying the IL-17 rs2275936 AA genotype had a higher risk of developing ocular disease and there was an association with positive family history as well. Further studies on larger number of patients are required to confirm these results.