

3-A potential association between psoriasis to rs4819554 of IL-17RA gene polymorphism in psoriasis Egyptian patients

الارتباط المحتمل بين psoriasis و متعدد الأشكال الجيني rs 4819554 للـ IL-17 في مرضى الصدفية المصريين

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Abstract

Interleukin 17 (IL-17) is one of the pro-inflammatory cytokine. Psoriasis is a noticeably over-expressed protein found in the skin lesions of psoriatic patients. Our current study was planned to examine the association of (– 947 A/G) single nucleotide polymorphism (SNP) in IL-17RA promoter region (rs4819554) with psoriasis susceptibility in Egyptian psoriatic patients. Our study included 100 patients and 100, age as well as sex matched, control groups. IL-17RA SNP association was studied using allelic discrimination. RT-qPCR and ELISA were done to assess IL-17 expression. ELISA was performed to assess psoriasis expression. Our study showed a significant association between IL-17 rs4819554 SNP and psoriasis risk, evidenced by higher G allele and AG genotype frequencies in psoriatic patients when compared to controls (allelic: OR 2.283, 95% CI 1.321–3.946, $p = 0.003$, and genotype: OR 3.026, 95% CI 1.356–6.752, $p = 0.007$). Additionally, serum psoriasis level was significantly increased when comparing psoriatic patients to controls ($p = 0.0003$). Moreover, significant increase in IL 17 gene and protein level in AA, AG psoriatic genotypes compared to the corresponding genotypes in normal control ($p = 0.0004$). IL-17 rs4819554 is significantly associated with psoriasis, and with psoriasis level, in the Egyptian population

Keywords: Psoriasis. single nucleotide polymorphism. IL17. Psoriasis. Egyptian Patients