

## عنوان مقاله:

Correlation Between IL-13rs20541(A> G) Gene Polymorphism and Bronchial Asthma Among Iraqi Patients

## محل انتشار:

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## خلاصه مقاله:

Background: Bronchial asthma has a complicated genetic history. Changes in gene expression may be caused by gene polymorphism, cytokines play a central role. IL-13 is an interleukin that has been shown to play a role in the disease's immunopathogenesis. The current study investigated the relationship between rs20541 of the IL-13 gene and Bronchial asthma in Iraqi patients. Methods: Seventy-five patient and fifty healthy individuals as a control. The DNA was extracted from blood samples. Detection of genotype IL-13SNP (rs20541) were achieved by RFLP-PCR. Results: indicated a highly significant the levels of the IgE, and IL-13 in the patients compared to control at ( $p \text{ value} \leq 0.01$ ), ( $456.45 \pm 290.106$  vs.  $300.8 \pm 24.414$ ), ( $59.598 \pm 20.93750$  vs.  $6.7034 \pm 4.10547$ ) pg/ml respectively. Result shows no significant differences in the frequency distributions of IL-13 SNP (rs20541) for all genotypes in cases and controls. A protective role of asthma, (OR: 0.62; CI.95%: 0.23 - 1.6) and (OR 0.89; CI.95%: 0.42 - 1.89) were observed for wild type homozygous and heterozygous genotype respectively. Whereas the AA genotype (42.7%) in cases and (34.0%) in control, that (OR: 1.44; CI.95%: (0.66 - 3.07) mutant homozygous were risk factors of asthma among individuals. The genotypes of IL-13 rs20541 (GG, AG, AA) among patients and controls were significantly correlated with IgE and IL-13 results at ( $p \leq 0.05$ ). Conclusions: AA genotype in case and control mutant homozygous were risk factors of asthma among individuals. It's possible that this has a predisposing impact on the development of asthma

## کلمات کلیدی:

Bronchial Asthma, RFLP, IL-13, SNP

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