

The Association of HLA-A Gene Polymorphisms with Chronic Periodontitis in Iraqi patients

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Abstract

Background: There is growing evidence that genetic aspects play a role in the onset and severity of periodontitis. However, numerous studies have pointed to the contribution of the human leukocyte antigens (HLA) alleles as a potential genetic factor in aetiopathogenesis of periodontitis.

Objective: To investigate the association of human leukocyte antigens class I genotype (HLA-A) and the susceptibility and severity of chronic periodontitis in Iraqi patients.

Patients and Methods: The study groups included 50 patients with chronic periodontitis and 20 healthy controls with clinically healthy periodontium. Periodontal parameters used in this study were plaque index (PI), gingival index (GI), probing pocket depth (PPD), clinical attachment level (CAL) and bleeding on probing (BOP). Five ml of venous blood were collected from each participant. DNA was extracted from blood samples, and HLA-A genotyping was performed by polymerase chain reaction-sequence specific oligonucleotide probes (PCR-SSO).

Results: The present data revealed that the frequencies of HLA-A*33 was significantly higher in patients than in healthy controls ($P=0.0268$).

Conclusion: This study suggests that HLA-A*33 allele may contribute to the increased susceptibility to chronic periodontitis.

Key words: Chronic periodontitis, Genetic factors, human leukocyte antigens, PCR-SSO.

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