

SHORT COMMUNICATION

HLA Class I Gene Polymorphism in Iranian Patients with Papillon-Lefevre Syndrome

Shirin Farjadian^{1,2*}, Nasrin Kiyanimanesh³, Abbas Abbaszadegan³, Mehrdad Lotfazar⁴

¹Department of Immunology, ²Allergy Research Center, ³Department of Operative Dentistry, School of Dental Medicine, Shiraz University of Medical Sciences, ⁴Clinic of Periodontology, No. 444, Phelestin St., Shiraz, Iran

ABSTRACT

Background: Papillon-Lefevre Syndrome (PLS) is a rare autosomal recessive disorder characterized by diffused palmoplantar keratoderma and severe periodontitis. Increased susceptibility to infections due to impairment of the immune system is considered to be involved in pathoetiology of this disease. **Objective:** According to the crucial function of HLA molecules in immune responses and association between certain HLA class I alleles and some periodontal or skin diseases, this study was designed to evaluate the relation of HLA class I genes and PLS. **Method:** HLA class I genes were typed by PCR-SSP (Polymerase Chain Reaction with Sequence Specific Primers) method in eight Iranian PLS patients and 89 healthy controls. **Results:** The results showed no significant difference between the patients and controls. Moreover, identical haplotypes or genotypes were also observed among PLS patients and their healthy siblings. **Conclusion:** It seems that further genes are involved in genetic susceptibility to PLS. However the results of this study showed no significant association between HLA class I genes and PLS, molecular analyses of killer immunoglobulin-like receptors (KIRs) and MHC class I chain-related gene A and B (MICA/B) in PLS may clear many obscure points about the genetic factors involved in these diseases.

Keywords: Papillon-Lefevre Syndrome, HLA Class I, Iran

*Corresponding author: Dr. Shirin Farjadian, Assistant professor, Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran. Tel: (+) 98 711 2303687, Fax: (+) 98 711 2304952, e-mail: farjadsh@sums.ac.ir