Original Paper

Frequncey of PDCD1.3 gene polymorphisms in systemic lupus erythematosus patients

Yousef Khanjari (M.Sc)[1], Alijan Tabarraei (Ph.D)*[2]
Morteza Oladnabi (Ph.D)[3], Nafiseh Abdolahi (M.D)[4]

[1]M.Sc in Virology, Faculty of Medicine, Golestan University of Medical Sciences, Gorgan, Iran. [2]Associate Professor, Infectious Diseases Research Center, Golestan University of Medical Sciences, Gorgan, Iran. [3]Assistant Professor, Gorgan Congenital Malformations Research Center, Department of Human Genetics, School of Advanced Technologies in Medicine, Golestan University of Medical Sciences, Gorgan, Iran. [4]Assistant Professor, Rheumatology Research Center, Golestan University of Medical Sciences, Gorgan, Iran.

Abstract

Background and Objective: Single Nucleotide Polymorphisms in programmed cell death which expressed at high level in T cells, plays an important role in the development and cause autoimmune disorders. This study was done to evaluate the frequncy of rs11568821 polymorphism in patients with systemic lupus erythematosus (SLE).

Methods: This case-control study was done on 76 patients with SLE and 56 healthy controls. After DNA extraction, frequncy of polymorphisms PDCD1.3 by polymerase chain reaction and sequencing methods in subjects were determined.

Results: There was a significant diference between frequency of allele and genotype at rs11568821 Polymorphism in region of intron 4 of PDCD1.3 gene in case and control groups ($P<0.05$). A allele and AG genotype was significantly higher in patients than healthy controls (9.5% vs 0.09%, $P<0.05$). There was no significant association between clinical and laboratory findings with genotype frequencies.

Conclusion: rs11568821 single nucleotide polymorphism in intron 4 gene region PDCD1 can be used as a genetic factor to be involved the SLE susceptibility.

Keywords: Systemic lupus erythematosus, PDCD1.3, Sequencing methods, Single Nucleotide Polymorphisms, Polymerase chain reaction

*** Corresponding Author: Tabarraei A (Ph.D), E-mail: tabarraei@goums.ac.ir**

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Alijan Tabarraei (https://orcid.org/0000-0002-8167-5469)

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