The Survey of Correlation IL6 (-174)-IL10 (-1082/-819) Genes Polymorphism and Plaques in Women with Multiple Sclerosis

Maryam Abolghazi1*, Mohammad Jafar Golalipour2, Majid Shahbazi3

1Department of Anatomical Sciences, Golestan University of Medical Sciences, Gorgan, Iran
2Research Center for Congenital Abnormalities, Anatomical Department, Golestan University of Medical Sciences, Gorgan, Iran
3Molecular Cell Center, Faculty of Technology, Golestan University of Medical Sciences, Gorgan, Iran

Abstract

Multiple sclerosis (MS) is a type of inflammatory disease in which the myelin sheath is attacked by the immune system in the central nervous system. Demyelin lesions, tissue damage, and neurodegenerative disorders in white matter are associated with decreasing cognitive decline in MS. Interleukin 10 is an anti-inflammatory cytokine. Interleukin 6 is a multi-functional cytokine that is used in the immune system. The aim of this study was to determine the association between the polymorphism of genes 10 and cerebellar plaques in women with MS. This case-control study was performed on 20 female patients with multiple sclerosis as a case group and 20 women without MS lesions, as the control group diagnosed as having no disease according to a neurologist diagnosis. For genotyping, in the case and control group, 10 cc blood samples were taken. DNA extraction was performed using phenol chloroform. Genotyping of DNA was done by SSP-PCR method. Then, the brains of MRI images of these people who were taken by FLAOR method were used to count the number of plaque. The results indicated that the IL6 genotypic release in the case group compared to control (0.818) and IL10 (-819) and IL10 (-1082) in the case group was (0.890) and (0.997) There was no significant relationship. No significant association was found between IL-6 and IL-10 and plaques. This study did not show any association between plaques and genotypes IL10 (-819), IL10 (-1082), and IL6 in women with multiple sclerosis.

Keyword: Multiple Sclerosis, Plaque, MRI, IL6, IL10(-819), IL10(-1082)

*Corresponding Author: Maryam Abolghazi

E-mail: maryamabolqazi2@gmail.com