

SHORT COMMUNICATION

Association of HLA-DQA1*0101/2 and DQB1*0502 with Myasthenia Gravis in Southern Iranian Patients

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ABSTRACT

Background: Myasthenia gravis is an autoimmune disorder of neuromuscular junction characterized by skeletal muscle weakness and fatigability. Different genes may control the induction and clinical presentation of this disease. Various HLA alleles are reported as predisposing or protective genetic elements in myasthenia gravis. **Objective:** The aim of this study was to investigate the probable association between HLA-DQ alleles and myasthenia gravis in southern Iranian patients. **Methods:** HLA-DQA1 and DQB1 alleles were determined in 104 sporadic patients with myasthenia gravis using polymerase chain reaction - restriction fragment length polymorphism method and the results were compared to 816 healthy controls. **Results:** HLA-DQA1*0101/2 (39.4%) and DQB1*0502 (21.6%) were the most frequent alleles in southern Iranian patients with myasthenia gravis. These alleles revealed positive associations with the disease with relative risks of 1.69 and 2.41, respectively. The most common haplotype was DQA1*0101/2-DQB1*0502 in these patients. **Conclusion:** According to the results of this study, DQA1*0101/2 and DQB1*0502 alleles might be considered as predisposing genetic factors to myasthenia gravis while DQA1*0501, DQB1*0301 and *0602/3 show protective roles against this disease.

Keywords: HLA-DQA, HLA-DQB, Myasthenia gravis

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