Title: Mannose-Binding Lectin Gene and Promoter Polymorphism and Susceptibility to Renal Dysfunction in Systemic Lupus Erythematosus

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Abstract: Introduction: Systemic Lupus Erythematosus (SLE) is a prototypical autoimmune disease characterized by the production of autoantibodies and the deposition of immune complexes in affected end organs. Both genetic and environmental factors appear to contribute to the development of systemic lupus erythematosus. One of the genetic factors effective in this disease is Mannose-Binding Lectin (MBL) gene. The aim of present study is to determine the distribution of the alleles A, B, C, D and H, L, P, Q variants and Hy, Ly, Lx haplotype in Lupus patients had renal dysfunction in compare with normal control.

Method: Twelve SLE patients with severe renal failure were compared with thirty normal control from Azerbaijan population of Iran. Frequency of alleles and genotypes were investigated by polymerase chain reaction and restriction fragment length polymorphism.

Results: Allelic and genotypic frequency of the polymorphism at position-550, +4 and at codon52,54 and 57 did not show statistical differences between SLE patient and controls but frequency of Lx haplotype was observed in patients with SLE and renal failure (p=0.0518).

Conclusions: Present findings showed that presence of Lx haplotype that cause low concentration of MBL in serum can be a risk factor for severity of systemic lupus erythematosus and susceptibility to renal dysfunction.

Keywords: Polymorphism, MBL, PCR, SLE, RFLP.

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