

# Results about RS1800450 and RS11003125 polymorphisms of MBL2 gene in relatively healthy and bronchial asthmatic subjects

Altanshagai C<sup>1</sup>, Gantulga B<sup>2</sup>, Narantsetseg L<sup>3</sup>, Buyankhuu T<sup>3</sup>, Munkhbayarlakh S<sup>4</sup>

<sup>1</sup>Gerontology National Center, Ulaanbaatar, Mongolia, <sup>2</sup>Agape Christian Hospital, Ulaanbaatar, Mongolia, <sup>3</sup>School of Bio-Medicine, Mongolian National University of Medical Science, Ulaanbaatar, Mongolia, <sup>4</sup>The First Central Hospital, Ulaanbaatar, Mongolia

## ABSTRACT

**Background:** The genetic and environmental factors contribute to the development of bronchial asthma. We aimed to determine the role of rs1800450 and rs11003125 polymorphisms of the MBL2 gene in relatively healthy and asthmatic subjects. **Methods:** Serum samples were collected from 71 healthy Mongolian adult blood donors and 71 bronchial asthma. The extraction of DNA was carried out by the extraction kits of genomic DNA (Geneaid). The mannose binding lectin gene was genotyped by PCR-RFLP method. The data were analyzed by odds ratio (OR) and associated confidence intervals (CI) at 95%. Chi-square test was performed. **Results:** The frequency of risky GA and AA genotypes of the rs1800450 polymorphism were determined respectively 8.4% (6) and 11.3% (8) in a case group and 16.9% (12) and 5.6% (4) in a control group. Also, frequency of GA and AA genotypes of the rs11003125 polymorphism were 33.8% (24) and 2.8% (2) in a case group. In a control group, genotypes were 25.4% (18) and 1.4% (1). Allele G (wild type) of rs1800450 polymorphism was found out in 84.5% of cases and in 85.9% of controls whereas A (mutant allele) was present in 15.5% of cases and in 14.1% of controls. Allele G (wild type) of rs11003125 polymorphism was present, respectively, in 80.3% of cases and in 85.9 of controls whereas C (mutant allele) was present in 19.7% of cases and in 14.1% of controls. **Conclusion:** There was no significant difference between case and control group correlated with rs1800450 and rs11003125 polymorphisms of MBL2 gene.