
ASSOCIATION OF CSFR2A GENE RS4129148 AND IL3RA GENE RS6603272 VARIANTS WITH SCHIZOPHRENIA

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Introduction

Schizophrenia is a devastating disorder which has a genetic component. Recently three reports showed that the IL3 gene, CSF2RA gene are associated with schizophrenia.

Aims

The objective of the study was to show whether there was an association between the IL3R gene rs6603272 variant and the CSF2RA rs4129148 variants with schizophrenia.

Methods

There was 264 schizophrenia patients and 222 controls from Romania. We utilized a PCR-RFLP method to genotype the subjects.

Results

The genotype frequencies of the IL3RA rs6603272 variant were TT, 54.2; TG, 39.8; and GG,6.1 % in cases and TT, 52.7; TG, 41.9; and GG,5.4 % in controls. The T allele frequency in both controls and cases was 74%. The genotype frequencies of the CSF2RA gene rs4129148 variant were GG, 40.2;GC,51.1; and CC, 8.7 % in cases and GG,39.2; GC,45.5; and CC,15.3 % in controls. The G allele frequency was 66% in cases and 62% in controls.

Conclusion

The IL3RA gene rs6603272 variant was not associated with schizophrenia($X^2=0.271$; $P=0.873$). However The CSF2RA gene rs4129148 variant CC genotype was associated with schizophrenia($X^2=5.079$; $P=0.024$). The G allele was a genetic risk factor for schizophrenia ($X^2=5.079$; $P=0.024$; $OR=1.895$, $95\%CI= 1.080- 3.326$). The controls were in Hardy-Weinberg equilibrium. But cases were not.