Background

Amyotrophic lateral sclerosis (ALS) is a fatal motor neuron disease (MND), affecting either upper or lower motor neurons. Generally patients experience signs and symptoms of progressive muscle atrophy and weakness, problems with swallowing, leading to respiratory failure and death. Only 5-10 % of patients survive more than 10 years and median survival is 3-5 years from onset (1).

Methods

We had 597 sporadic ALS patients and 423 controls to genotype. Genomic DNA was isolated from whole blood and a polymerase chain reaction and restriction fragment length polymorphism procedure was used to genotype the STH gene rs62063857 variant (2). The amplified fragment was digested Hinfl restriction endonuclease and run on an 8% polyacrylamide gel followed by silver staining. SPSS statistical analysis was used in the calculation of genotype and allele frequencies and association.

Results

Although ALS is a rare disease with a prevalence of 1-2 in 100,000 worldwide, it is a devastating disorder. In our earlier studies, we found that STH rs62063857 variant was associated with dementia (3) and Parkinson’s disease. In this particular study, we did not find any association between the STH gene rs62063857 variant and SALS.

Discussion and conclusions

The satiohin gene rs62063857 variant was not associated with SALS (χ²= 0.063, P=0.969). The AA, AG and GG genotype frequencies in the sals were 61.5, 34.0 and 4.5 % in cases and 60.8, 34.5 and 4.7 % in controls respectively. The A and G allele frequencies were 78.48 and 21.52% in cases and 78.0 and 22.0 % in the controls respectively. There was no association on genders (χ²= 0.345, P=0.842 in male and χ²=1.113, P=0.573 in female).

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References