Association of GPER gene polymorphism with social function of children with attention deficit hyperactivity disorder


Abstract

OBJECTIVE:
To assess the association of G protein-coupled estrogen receptor(GPER) gene polymorphism with social function of children with attention deficit hyperactivity disorder (ADHD).

METHODS:
The social function of 135 children with ADHD were assessed by Weiss Functional Impairment Scale-Parent form (WFIRS-P). The coding region of GPER gene of all patients was subjected to Sanger sequencing. The association of polymorphisms with the social function of the ADHD children was analyzed.

RESULTS:
In the case group, the social function scores of Learning and School and Risky Activities of boys were significantly higher than those of girls (t=2.704, P=0.008; t=2.289, P=0.027). No significant difference was found in the genotypic frequencies of the c.-9T/C and c.789G/A loci between different genders. But the learning and school scores of those with a TC genotype for the c.-9T to C locus were significantly higher than those with a TT genotype (t= 2.159, P=0.033).

CONCLUSION:
For children with ADHD, the social function of Learning and School of those with a TC genotype of the GPER gene c.-9T/C locus is more severely damaged compared with those with a TT genotype.