

Poster presentation

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Association of the GABRB3 microsatellite marker in gamma-aminobutyric acid-A receptor beta 3 subunit gene with autism spectrum disorders in Korean trios

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Background

This study aimed to identify the association between GABA-A receptor subunit β 3 (GABRB3) gene and autism spectrum disorders (ASD) in Korea.

Materials and methods

Fifty-eight Korean children with ASD (47 boys (81.0%), mean age, 5.5 ± 4.1 years old) were enrolled from the out-patient clinic at a general hospital in Seoul, Korea. In addition, 46 family trios, each consisting of an affected child with ASD and that child's biological parent, were recruited. Eighty-six healthy control subjects (71 males (82.6%), mean age, 33.6 ± 9.3 years old) were also recruited through advertisements in local newspapers. TDT was applied to analyze the preferential intergenerational transmission of GABRB3 microsatellite in 46 complete trios.

Results

183 bp long allele in GABRB3 gene were preferentially transmitted in families with ASD ($p = 0.025$). A population-based case-control study, however, showed no association between ASD and GABRB3 microsatellite polymorphism.

Conclusions

Our data provide preliminary evidence that GABRB3 gene is associated with ASD in Korea.

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