An exploratory study of cognitive functions characteristics of children with different subtypes of attention deficit/hyperactivity disorder based on Integrated Visual and Auditory Continuous Performance Test

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Introduction & Objective

Because the cognitive functions of ADHD children is heterogeneous, the results of neuropsychological test can reflect the functions of ADHD children, but the results cannot be completely consistent with the symptoms.

To analyse the cognitive functions characteristics of three subtypes of ADHD children classified by the Integrated Visual and Auditory Continuous Performance Test (IVA), and compare the differences with the cognitive functions of ADHD children classified by the Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-V), and explore the differences.

Methods

A total of 126 children with ADHD who visited the Capital Institute of Pediatrics from March 2021 to December 2022 were selected for Wechsler test, IVA test and cognitive functions test. According to IVA results, ADHD children were divided into ADHD-I, ADHD-HI and (ADHD-C). SPSS23.0 statistical software was used to compare the cognitive functions characteristics of children with three subtypes of ADHD, and to explore the differences between them and children classified according to DSM-V.

Results

According to IVA results, there were statistical differences in IQ, mathematical cognitive ability, numerical reasoning ability, sequence relationship and comparative size of the three groups of children($P<0.05$). The IQ, mathematical cognitive ability, numerical reasoning ability and sequence relation of ADHD-HI children were better than those of ADHD-C children($P<0.05$). Moreover, the numerical reasoning ability of ADHD-I children is better than that of ADHD-C children($P<0.05$).

Conclusion

There were differences in cognitive functions among different subtypes of ADHD children classified by IVA. The difference was more pronounced than in the DSM-V classification.

Keywords

ADHD
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