Clinical Use of Continuous Performance Tests to Diagnose Children With ADHD

Jangho Park; Changyoon Kim; Joon-Ho Ahn; Yeonho Joo; Min-Sup Shin; Hyun-Jeong Lee; Hyo-won Kim


Abstract

Objective: This study evaluated the diagnostic application of continuous performance tests in children with ADHD.

Method: We recruited 114 children (aged 6-12) from August 2012 to May 2014. Seventy-nine children were diagnosed with ADHD and 35 were enrolled as controls. The Advanced Test of Attention (ATA) was administered to all participants.

Results: There were significant between-group differences for the frequency distribution of four ATA variables. The ATA criteria yielded a diagnostic sensitivity and specificity of 84.8% and 45.7%, respectively. Discriminant analysis revealed that auditory reaction time variability and visual commission errors helped distinguish between the groups. Discriminate functions indicated correct classification of 64.9% children. ADHD children tended to have lower intra-class correlation coefficients.

Conclusion: Our results suggest that the ATA distributions of ADHD individuals may differ from the general population; in addition, the ATA results could not independently diagnose ADHD. Therefore, they should be considered carefully before diagnosis.