Executive function and working memory in attention deficit / hyperactivity disorder and healthy children

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Abstract

Background and Objective: Attention deficit / hyperactivity disorder (ADHD) is a neurodevelopment abnormality. Inattentive behavior is considered a core and pervasive feature of ADHD. This study was done to compare the executive function and working memory in attention deficit / hyperactivity disorder and healthy children.

Materials and Methods: This case – control study was done on 50 children with ADHD as cases and 40 healthy children as controls. The disorder was diagnosed by applying Kanerz teacher test and confirmed by a psychiatrist. Stroop test, Wisconsin Card Sorting Test (WCST), Continuous Performance Test (CPT) and n-back test were used to assess the executive function and working memory.

Results: There was a significant difference between case and control groups in regard to executive function and working memory (P<0.05). Error omission was 16.98±8.157 and 7.3±3.824 in cases and controls, respectively (P<0.05).

Conclusion: Attention deficit / hyperactivity disorder reduces executive function and working memory in children.

Keywords: Attention deficit / hyperactivity disorder, Executive Functions, Working memory

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