

Univerzita Karlova v Praze
1. lékařská fakulta

Studijní obor: Lékařská psychologie a psychopatologie



MUDr. Michal Goetz

Cerebelární funkce u poruchy pozornosti s hyperaktivitou
Cerebellar functions in Attention Deficit Hyperactivity Disorder

Abstract

Školitel: Doc. MUDr. Vladimír Hort, CSc.

Praha 2014

Prohlášení

Prohlašuji, že jsem závěrečnou práci zpracoval samostatně a že jsem řádně uvedl a citoval všechny použité prameny a literaturu. Současně prohlašuji, že práce nebyla využita k získání jiného nebo stejného titulu.

Souhlasím s trvalým uložením elektronické verze mé práce v databázi systému meziuniverzitního projektu Theses.cz za účelem soustavné kontroly podobnosti kvalifikačních prací.

V Praze 14. 2. 2014

MUDr. Michal Goetz

Identifikační záznam

GOETZ, Michal. Cerebelární funkce u poruchy pozornosti s hyperaktivitou [Cerebellar functions in Attention Deficit Hyperactivity Disorder]. Praha, 2014. 190 stran, Disertační práce (Ph.D.). Univerzita Karlova v Praze, 1. lékařská fakulta

Práce byla podpořena grantem GAUK 0383/2010

Abstract

Objective: To examine the presence of cerebellar symptoms and balance performance in ADHD and their association with behavioral markers of this disorder. Method: Sixty-two children with ADHD and 62 typically developing (TD) children were examined for cerebellar symptoms using the International Cooperative Ataxia Rating Scale (ICARS), underwent the testing of balance ability using the electronic balancing platform, Conners' Continuous Performance Test-II v.5 (CPT-II) and Rey Complex Figure test (RCFT) has been administered. Results: Children with ADHD had significantly more cerebellar symptoms compared with the TD children. Cerebellar symptom scores decreased with age in the ADHD group; in the TD group remained stable. In both groups, cerebellar symptoms were associated with parent rated hyperactive/impulsive symptoms, variability of response time standard error (RT-SE) and increase of response time standard error as the test progresses. More variables were associated with cerebellar symptoms in the ADHD group including omission errors, overall RT-SE and its increase for prolonged inter-stimulus intervals. Higher score of cerebellar symptoms predicted worse outcome in the reproduction of the RCFT in ADHD group, but not in TD group. Higher score of cerebellar symptoms predicted worse outcome in the recall of RCFT in both groups. Children with ADHD showed higher overall balance amplitude in compare with controls. Worse outcome in balance test predicted an increase of variability of reaction time in both groups. Our analysis did not establish any significant relationship between balance performance and RCFT. Cerebellar symptoms correlated with balance performance. Conclusions: Our results indicate a role for cerebellar impairment in the ADHD and highlight the importance of research into motor functions in children with ADHD.

Key Words: attention-deficit/hyperactivity disorder, Conner's Continuous Performance Test, cerebellum, balance, reaction time variability

