

Asymmetric tonic neck reflex and symptoms of attention deficit and hyperactivity disorder in children

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Abstract

One of the particularly important postnatal developmental reflexes that diminish in later stages of development is asymmetric tonic neck reflex (ATNR), which belongs among the so-called primitive reflexes. According to current evidence, certain later developed functions during ontogenesis of the central nervous system tend to replace the primitive reflexes, and their persistence is related to certain specific neuropsychiatric or neurological disorders. According to current knowledge, there is no evidence to which extent persistence of these reflexes may play a role in attention deficit and hyperactivity disorder (ADHD). With respect to these findings, we have tested a hypothesis to which extent persisting primitive reflex ATNR in 60 children in the school age (8-11 years) will be related to symptoms of ADHD and compared the results with 30 children of the same age. Results of this study show that ADHD symptoms are closely linked to persisting ATNR, which indicates that ADHD symptoms may present a compensation of unfinished developmental stages related to diminishing ATNR.