Perinatal Risk Factors and ADHD in Children and Adolescents - A Hierarchical Structure of Disorder Predictors

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Abstract

Objective:
The aim of the study was to hierarchically assess the predictive power of low and high birth weight, pre-term and post-term birth, and low Apgar score as the risk factors for ADHD.

Method:
The data of 132 boys diagnosed with ADHD and 146 boys from control group, aged 6 to 18 years, have been analyzed. The boys were categorized according to term of birth, birth weight, and Apgar score. CART method (Classification and Regression Trees) was used for assessment of the relationship between perinatal factors and the risk of ADHD.

Results:
Low Apgar score (21.97% vs. 13.01%) and post-term birth (12.12% vs. 0.68%) were more frequent in the sample than in the control group. CART method additionally indicated low birth weight as associated with the risk of ADHD. Among analyzed risk factors, Apgar score had the highest predictive value.

Conclusion:
The decreased Apgar score is the most important perinatal risk factor of ADHD. Research results also indicated a high significance of post-term birth in predicting the disorder.