

The assessment of serum lipid profiles of children with attention deficit hyperactivity disorder.

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Abstract

Attention-deficit/hyperactivity disorder (ADHD) is one of the most prevalent psychiatric disorders in children and the pathophysiology remains obscure. Some studies show that lipid imbalances are associated with ADHD etiology. We studied the association of serum total cholesterol, high-density lipoprotein (HDL), low-density lipoprotein (LDL), and triglyceride (TG) levels in ADHD. We examined 88 children aged 8-12 years who were diagnosed with ADHD and 88 healthy children. The exclusion criteria were as follows: obesity, any psychotropic use in the last 3 months, presence of a chronic disease and/or malignancy, history of medically treated lipid metabolism disease in family members, intelligence quotient (IQ) < 70, and comorbidities, with the exception of oppositional defiant disorder. The sample was evaluated using a semi-structured clinical assessment interview and Conners' rating scales. Despite controlling for age, sex, and body mass index (BMI) variables, the total cholesterol and LDL levels were significantly higher in the ADHD group than the levels of healthy controls, whereas the TG and HDL cholesterol levels were similar among groups. Conners' rating scales, reflecting symptom severity, and total cholesterol, TG, HDL, and LDL levels of the ADHD group were not correlated. The study results support the difference in serum lipid and lipoprotein profiles of children with ADHD compared with healthy controls. This difference is thought to be related with changes in oxidant/antioxidant balance states in ADHD.