The Impact of Copper in Children with Attention Deficit Hyperactivity Disorder

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During one year (September 2013 – September 2014), 50 children from the residential institution for children SOS Satele Copiilor Bucharest, where included in our research. The children were distributed in two groups: Group A which consisted of 25 children (12 girls, 13 boys) who were not diagnosed with attention deficit hyperactivity disorder (ADHD) and Group B which consisted of 25 children (14 boys, 11 girls) who were diagnosed with ADHD. Initially, the two groups were subjected to a psycho-diagnostic battery of tests, one of them being the Evaluating the Health State of children with ADHD questionnaire elaborated by us, particularly for this research, with the purpose of highlighting the direct link between the children health state and their ADHD symptoms. This study sought to determine the concentration of copper in urine samples from a group of children with ADHD and a group of normal children, to highlight the role of copper in the development of ADHD symptoms. Levels of copper concentration in urine samples from the two groups were processed by Student’s t-Test. Statistical analysis showed that the arithmetic averages of copper concentration in urine samples, of the two groups do not differ significantly, so copper may be causing ADHD symptoms occur. The copper content in urine samples has been determined using atomic absorption spectrometry with a graphite furnace.