

BDNF plasma level in ADHD children : Correlation to different symptomatology

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ADHD cases were collected conveniently from the outpatient clinic, Institute of Psychiatry, Ain Shams University. 21 Cases were diagnosed after history taking, clinical interview, and then selected cases underwent IQ test (WISC), Conner's test to assess severity of different symptoms, 3 ml blood sample before the morning dose of treatment. After full assessment patients were categorized into 3 diagnostic categories (hyperactive type, inattentive type, and combined type). Control group consisted of 20 normal volunteer children, with no psychiatric or neurological disorder. 3ml morning non clotted blood samples were collected from them. All collected blood samples were centrifuged, plasma was separated, stored in -80 degree till all samples were collected, then measurement of plasma level of BDNF was done using specific kits for its assessment. Results showed that there was no significant difference between ADHD children and control group regarding the BDNF plasma level. There was no gender difference in BDNF plasma level. There was no significant difference between ADHD children either before treatment or after starting methyl phenidate (Ritalin). There was significant statistical difference regarding BDNF plasma level between the hyperactive type of ADHD patients , and inattentive type.

There was highly significant statistical difference between the inattentive type of ADHD and control group regarding BDNF serum level. It is much lower in inattentive type than that of the control group (28689). Significant positive correlation was found between BDNF plasma level and performance IQ, hyperactivity, and hyperactivity- impulsivity.