

CBP09 Neurotransmitters and neuropsychological development

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Purpose: Define a connection between content of neurotransmitters at peripheral blood and clinical features of developmental delay.

Objectives:

- Spectrum of clinical features of neuropsychological delay at children of early age
- Investigation levels of serotonin, dopamine, noradrenalin at peripheral blood.

Methodology: First stage is selection of representative groups of children in the age of 1 till 4 years old. For this part of work we used specially developed questionnaires. The questionnaires consist of general information, anamnesis, and basic neurological examination. To all children we did neuropsychological testing with relevant scales. Metabolic screening in these studies involved determination of serum serotonin, dopamine and noradrenaline levels.

Results: As a preliminary result of the research we determined a decrease of contents a serotonin, the normal contents of noradrenalin and the high contents of dopamine, which can indirectly testify the connection with infringements of various parts of monoaminergic system resulting in a delay of neuropsychological developments of children.