

Assessment of biochemical changes at the children with developmental delay

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Objectives: Developmental disabilities are a group of related chronic disorders of early onset estimated to affect 5-10% of children. Developmental delay is subset of developmental disabilities defined as significant delay in two or more of the following developmental domains: gross/fine, speech/language, cognition, social/personal and activities of daily living. It is known that various parts of mediators systems are result of behavioral and mental frustration.

The aim of this study was investigation the level of contents of serum serotonin, dopamine, nora-drenalin at children.

Methods: We selected 20 children in the age of 3 till 9 years old with different levels of developmental delay. Boys-12 and girls-8.

Metabolic screening in these studies involved determination of serum serotonin, dopamine, and acetylcholine levels.

Results: we have found that a level of serotonin decreased on the child with severe developmental delay, contents of noradrenalin is high than normal and the low contents of dopamine, which can indirectly testify to infringements of various parts of monoaminergic system resulting in a delay of neuropsychological developments of children.