

THE ABNORMAL PROMINENT THETA EEG ACTIVITY, THE LEVEL OF CORTICAL DIRECT CURRENT (DC) POTENTIAL AND SYNDROMAL ESTIMATES IN CHILDHOOD

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Introduction: In the diagnosis of functional states of the brain are bursts deviation from the normal pattern EEG. Also used registration of the scalp-recorded direct current (DC) potentials, which in the modern view is characteristic of indirect energy metabolism of the brain.

Objectives: Studied 25 children 8, 5±3, 3 years of schizophrenia.

Aims To assess the significance of electrographic parameters abnormal theta activity with characteristics of energy metabolism of the brain in schizophrenia.

Methods: Shifts in scalp-recorded DC potential were studied in relation to the changes of EEG recording such as abnormal prominent theta bursts. Standard EEG recordings were made during wakefulness. "Theta bursts" appeared in two frequency bands: 4-5 cps and 6-7 cps. DC potentials and their topographical distribution were investigated in schizophrenic patients with and without designated electroencephalogram characteristics. The mental state of children assessed psychopathological method and using the scale of PANSS. The obtained data were analyzed using software Statistica-7.

Results: The presence of 6 - 7 Hz in the EEG theta activity, particularly in the temporal areas, combined with a higher level of permanent potentials. Fairly significant differences were observed for the left ($p < 0,018$) and right ($p < 0,012$) of the temporal lobes. Were observed higher ratings of positive syndromes scale PANSS ($p < 0,014$). The presence of 4-5-Hz activity was associated with a decline in constant potentials, and a decrease in mean scores of positive syndromes PANSS.

Conclusions: It was concluded that DC measurement reflects changes in brain state associated with pathophysiology of schizophrenia.