

## **THE STUDY OF EEG CHANGES IN EPILEPTIC CHILDREN AT THE BACKGROUND OF AEP DRUGS**

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The aim of the study: to investigate the alteration of different EEG characteristics in epileptic children during the treatment with Antiepileptic Drugs (AEP) -Depakin.

Material and Methods: 46 patients aged 3 to 9 (28-boys, 18-girls) were examined. Generalised seizures were observed in 25 and partial seizures in 21 patients. All the patients underwent of the qEEG recording at the first visit prior to the administration of any anticonvulsants, further 3-4 and 6-8 months after the start of D consumption. EEG signals were digitally recorded using a set of 19 scalp electrodes according to the International 10–20 system. 10-15 fragments for each patient were performed. The following EEG characteristic was analyzed: Absolute values of the power spectra (AVP) of activity delta theta, alpha, beta waves were analyzed; Spatial distribution topography activity over the brain convexital surface.

Results: D appears significantly reduce the total AVP indices practically in all zones recorded from the brain's, especially of low-frequency range in temporal and occipital areas. D reduces degree of disorganization of basic rhythmicity of EEG. D influence on epileptiform graphoelements shows primarily in the reduction of epileptiform spike-wave complexes. Complete reduction of these elements in the resting EEG was observed practically as early as 3 months after the beginning of the treatment. At the same time, the influence of D sharp waves, as well as on paroxysmal bursts provoked by functional tests was expressed to a less extent: these graphoelements continued to be recorded after 6-8 months after the commencement of the treatment.