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INTRAHemispheric EEG COHERENCE IN NEUROTIC PATIENTS

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When studying the structure of intercentral relations reflected in electrical activity of different brain parts, we use calculation of complex function of coherence (Coh). High level of Coh between electrical processes indicates that they originate from the same source or that the sources of these processes are functionally related. The level of Coh between functionally separate parts will be low.

The goal of our study was to examine the level of intrahemispheric Coh in patients suffering from organic pseudoneurotic disorders F06.3-F06.8 and F07.0-F07.8 according to ICD-10 and neuroses (stress-related disorders) F 4.

We examined 100 healthy people, 100 patients with organic pseudoneurotic disorders and 65 patients with stress-related disorders aged 18-50. Pseudoneurotic symptomatology in patients with pseudoneurotic disorders was represented with asthenovegetative, asthenodepressive, emotionally labile and anxiety disorders occurring as a result of cerebral injuries, neuroinfections, and chronic vascular processes. The same symptomatology was observed in patients with neuroses. The study was conducted on 16-channel encephalograph "Mitsar" in spectral and coherent analysis modes.

Coh was detected in left and right hemispheres.

The level of intrahemispheric coherence of all rhythms (especially of beta-rhythm) was identically increased in both hemispheres, more evidently in electrode pairs: frontopolar and temporal, temporal and occipital, central and occipital in both group of patients. There were no differences revealed in intrahemispheric coherence rates between patients with organic pseudoneurotic disorders and with neuroses.