

- As fungi and Proteus had never been cultured at the children's admission to the hospital, their identification should be evaluated as a complication of antibacterial therapy at the discharge from the hospital and in long-term period.

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**DYNAMICS OF
ELECTROENCEPHALOGRAPHIC
INDICES OF THE COGNITIVE
PATHOLOGY AT SCHIZOPHRENICS
WITH PAROXYSMAL AND CONTINUOUS
CLINIC COURSE UNDER THE
INFLUENCE OF
PHYCHOPHARMACOTHERAPY.**

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Schizophrenia is one of the most important problems both for modern clinical psychiatry, and for the science dealing with human brain in whole. According to specialists' estimate, approximately 1% of all population in industrially developed countries are subjected to this disease (Sedok B., Caplan G.I., 2002).

Schizophrenia is heterogeneous mental disorder with wide range of disturbances in cognitive processes. The investigation of bioelectrical activity of brain could ease the objectification of these difficult and varied disturbances and prediction for a therapeutic response.

The aim of this work was the investigation of cerebral rhythms (theta, alpha and beta) according to the indices of size, topography, asymmetry and synchronization in every frequency range in order to identify the relationship between rhythms and their synchronization in space-hold and in a cognitive load. And also the development of differentiated statements for psycho pharmacotherapy of schizophrenics adjusted for indices of clinical estimate of their states and electroencephalographic parameters' dynamics.

Materials and methods: EEG-investigation of 148 paranoid schizophrenia patients, receiving antipsychotic therapy in the condition of in-patient facility was carried out. Psychotic manifestations were qualified in 75 patients (1 group) within the paroxysmal schizophrenia on MCB-10, 73 patients (2 group) had ceaseless character of clinic course.

71 patients (main group), of which 38 (53,5%) were women and 33 (46,5%) men, had got atypical neuroleptics (risperidone, quetiapine, olanzapine), and 77 (control group)- 37 (48,05%) were women and 40 (51,95%) men got haloperidol. All preparations were prescribed in the form of monotherapy in an adequate therapeutics dosages, in some cases clozapin was connected in order to rapid relief of marked disomny disturbances. 38 mentally healthy probationers composed the control group. All probationers were right handed. EEG mapping was carried out in case of getting to the in-patient facility in 7 days after repealing preparations with the help of electroencephalography «MICHAR - EEG - 2000». The results of investigations of spectrum capacity on ranges of theta, alpha and beta, averaged according to groups of probationers for recording in a background and in carrying out of cognitive test (calculation according to Crepelin), and also analysis of coefficient index of interhemispheric asymmetry were used in the work (KA).

Results of carried out investigations and conclusions: All EEG rhythms are symmetric and synchronic both on phase, and on frequency in a normal position against the background. In schizophrenia expressed asymmetry of cerebral rhythms and decreasing of synchronization level in comparison with norm are marked. In patients with paroxysmal clinic course, the asymmetry and lack of coincidence of EEG vibrations by phase and frequency are the most expressed, that testifies about «break» of interactions of grey matters, functional disorganization of cerebral processes and the possibility of psychopharmacological correction.

There is a complex picture of interhemispheric asymmetry in the patients with chronic clinical course, expressed for each EEG rhythm in different way. And also sharp reduction of capacity of all EEG rhythms corresponds to steady pathological condition and

difficulties of treatment in comparison with two other groups of probationers.

On analyzing the topography of spectrum capacity, the distinctive peculiarity of EEG dynamic under the influence of haloperidol was the normalization of zonal differences due to increasing of alpha-rhythm, mainly in occipital spheres. During all period of therapy, the amplification slowly-wave spectrum with an accent in forehead spheres was noted. Atypical antipsychotics were also provoked the normalization of regional peculiarities of EEG in amplification of alpha-range, but without distinctive dynamics or with decreasing theta-rhythm.

The preparations of this group have some differences from haloperidol, and also slightly

differ between themselves both according to beginning of therapeutic effects, and according to topic and dynamic of neurophysiologic indices. The received data should efficiently be applied in choosing of the method of treatment, planning of therapeutic tactics, in solving of prediction questions and forecast of psychopharmacotherapical effectiveness.

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Table 1. LF value in blood serum (ng/ml) in patients older than 60 with different bronchopulmonary pathology in comparisons:

Disease		Persons older than 60		Persons younger than 60	
		n	Average concentration of lactoferrin (ng/ml) in blood serum ($M \pm m$)	n	Average concentration of lactoferrin (ng/ml) in blood serum ($M \pm m$)
Community-acquired pneumonia		46	1597,1 \pm 121,4 $p_5 < 0,01$ $p_7 < 0,01$	32	2566,4 \pm 208,2 $p < 0,01$ $p_1 < 0,01$ $p_2 < 0,01$
COPD	COPD	39	1107,6 \pm 37,7 $p_4 < 0,05$ $p_7 < 0,01$	29	1479,9 \pm 22,1 $p < 0,01$ $p_3 < 0,01$
	Infective bronchial asthma	35	1006,9 \pm 32,8 $p_4 < 0,05$ $p_6 < 0,05$ $p_7 < 0,01$	21	1345,4 \pm 20,6 $p < 0,05$
Carcinoma of lung		35	1021,3 \pm 74,2 $p_4 < 0,05$ $p_7 < 0,01$	20	1655,4 \pm 65,3 $p < 0,01$ $p_1 < 0,02$
Practically healthy persons		22	1878,5 \pm 301,2	30	1176,0 \pm 67,9

p – relative to practically healthy people under 60; p_1 – relative to young people with COPD; p_2 – relative to young people with carcinoma of lung; p_3 – relative to young people with infective bronchial asthma; p_4 – relative to practically healthy people older than 60; p_5 – relative to elderly patients with COPD and carcinoma of lung; p_6 – relative to elderly patients with COPD; p_7 – relative to young patients with correspondent nosologic form of the disease.

Table 2.Correlation relationships between LF levels in blood serum and immunogram showings at bronchopulmonary pathology in the elderly:

Correlation relationships	CAP	COPD	N(I)BA	CL
r _{If} - leucocytes (abs)	↑↑ p<0,01	↑ p<0,01	↑↑ p<0,01	↑↑ p<0,01
r _{If} – lymphocytes (%)	↑ p<0,01	0	↑ p<0,01	↑ p<0,01
r _{If} – lymphocytes (abs)	↑↑ p<0,01	↑ p>0,05	↑↑ p<0,01	↑↑ p<0,01
r _{If} - T-lymphocytes (%)	↑ p<0,01	0	↑ p<0,01	↑ p<0,01
r _{If} - T-lymphocytes (abs)	↑↑ p<0,01	↑ p>0,05	↑↑ p<0,01	↑↑ p<0,01
r _{If} - T-helpers (%)	↑↑ p<0,01	↑ p>0,05	↑↑ p<0,01	↑↑ p<0,01
r _{If} - T-suppressors (%)	↑ p>0,05	0	↑ p>0,05	↑ p>0,05
r _{If} - B-lymphocytes (%)	↑ p>0,05	↑ p>0,05	↑ p>0,05	↑ p>0,05
r _{If} - B-lymphocytes (abs)	0	0	0	0
r _{If} - Ig G (mг %)	↓ p>0,05	0	0	↑ p>0,05
r _{If} - Ig A (mг %)	↑ p>0,05	0	0	↓ p>0,05
r _{If} - Ig M (mг %)	↑ p>0,05	↑ p>0,05	↓ p>0,05	↑ p>0,05

r – correlation relationship, If – lactoferrin, 0 – lack of correlation relationship

↑ - positive correlation relationship, ↓ - negative correlation relationship

↑, ↓ - r < 0,5 (weak), ↑↑, ↓↓ - r = 0,5 - 0,7 (moderate)