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**NEUROPSYCHOLOGICAL CHARACTERISTICS OF OPIOMANIA PATIENTS**

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**Objectives:** To study neuropsychological peculiarities of opiomania patients.

**Method:** 42 second stage male opiomania patients between 18 and 30 years of age were studied using clinical and neuropsychological methods and in accordance with the A. R. Luria methods of quantitative and qualitative analysis of test results.

**Results:** (i) In 85% of patients studied activity regulation disorder was revealed. The syndrome is known to occur due to the brain posterior lobe (pre-motor) structure dysfunctions. The greatest difficulty for such patients occur while fulfilling intellectual tasks and while switching over in dynamic praxis; (ii) In 80% of patients pronounced mnestic disorder syndrome accompanying the dysfunction of the left hemisphere mid-temporal lobe region was noted. The degree of pronouncement of the syndrome was confirmed by the presence of confabulations in 35% of patients;

(iii) 60% of patients had spatial discoordination witnessed by the presence of the left hemisphere lower parietal zone dysfunction. Impairment of spatial praxis and counting abilities were considerable. It was concluded that second stage opiomania patients have dysfunctions of the left hemisphere mid-temporal, posterior lobe, lower parietal zone and deep structures of the left temporal lobe. The results obtained may provide the basis for the development of pathogenically oriented treatment for these patients.

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**THE NEW PATHOBIOLOGICAL ALCOHOLIC SYNDROME: PERSISTENT SHUNTING OF BLOOD PHOSPHOLIPIDS**

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**Objective:** to define dynamic changes in the blood phospholipids by using infra-red spectrometry in the process of the development of different stages of alcoholism. Method: 40 males between the ages of 20 and 43 at different stages of alcoholism were investigated.

**Results:** In the range between 3500-3100 cm<sup>-1</sup> which characterises absorption of sphingomyelins (SphM), phosphatidylolines (PhCh), phosphatidylethanolamines (PhEA), phosphatidylinosites (PhI) and OH connections, the optic density indicator changes ( $p < 0.001$ ) take place within the time range of 50-60 seconds since the beginning of the rapid changes. A maximum level of PhCh, PhEA, SPhM, PhI in 100-120 sec. is 0,5 conventional units (c.u.) with a norm of 0,2 c.u. Between 1729-1522 sm<sup>-1</sup> including -C=C- connections and SPhM and PhCh with a maximum of their number per 100 sec. of rapid changes accounts for 0,9c.u. with a norm of 0.5 c.u.. Between 1468-1302 sm<sup>-1</sup> including CH<sub>2</sub>S-O-S-H,C-N connections the maximum level if 0.5 c.u. with a norm of 0.12 c.u. within the first 20 sec. In the range of 1193-1057 sm<sup>-1</sup>, changes in the first 40 sec. were 0.5c.u. with a norm of 0.12 c.u. in persons with alcoholism without abstinence. In the analyses of rapid change in alcoholism aggravated by abstinence, the changes range from 3500-3100sm<sup>-1</sup> and 1729-1533sm<sup>-1</sup> per 100 sec. the number of SphM and PhCh was larger. Results indicate the formation of alcohol addiction is accompanied by pathochemical changes indication a malfunction of the membrane-related functions of cells.

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**THE DYNAMICS OF INFRA-RED SPECTROMETRY INDICES IN EPILEPSY**

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It is estimated that 0.8-1% of the global population suffer from epilepsy but some features of its pathogenesis have not been fully defined.

The purpose of the work was to study infra-red spectrometry indices. The blood of patients between the ages of 19 and 42 and at different stages of therapeutic remission was analyzed with the application of "IKAR". IR spectrometry makes it possible to investigate the state of blood metabolism. The blood was analyzed in a static regime by 9 zones of infra-red spectrum absorption.

The results showed that people suffering from epilepsy have broken attended metabolism. The features of the indices revealed that these routine methods of treatment are not effective enough and do not correct biochemical imbalances in an appropriate way.

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**TRANQUILLIZER AND ANTIHYPOXIAL ACTIVITY IN SULFANILAMIDE DERIVATIVES**

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**Objective:** to study the relationship between hypno-sedative and antihypoxial properties in new sulfanilamide derivatives in the light of the knowledge that some drugs which lessen the excitability of the CNS enhance the steadiness to oxygen deficit.

**Methods:** Experiments with white mice were carried out. Antihypoxial effects were studied on a model of normobaric hypoxia in a closed space. Tranquillizer activity was determined as an elongation of the time of hexobarbital sleep.

**Results:** Showed that antihypoxial activity of 20 new sulfonamide derivatives of norbornene depended on the character of substitution radicals. The change of the space configuration (replace exo- to endo-isomer) showed a decreased antihypoxial effect.

The most intensive tranquillizer action was observed in chlorine based compound endo-isomer where the duration of sleep increased to 337% but the antihypoxial activity was minimal (10%). The moderate sedative effect (180%) was observed in nitro- and chlorine-based medication and was combined with sufficient steadiness in oxygen deficit (98%). Thus, antihypoxial activity did not always coincide with the tranquillizer actions of the new sulfonilamide derivatives.