

Diagnosics and regulation of emotional asymmetry of the brain in violation of the sleep-wake cycle using electropuncture

ART "IMEDIS-TEST"

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Study interhemispheric asymmetry motor, sensory, mental activity of the brain has been going on for many decades. The presence of emotional asymmetry of the cerebral hemispheres is now widely recognized [1, 2] and is considered in the context of the organization of cognitive activity and holistic human behavior [3].

If emotions are understood as our feelings and moods and their manifestations in behavior and reactions from the autonomic and endocrine systems [4], then the manifestations of emotions are mainly due to hereditary congenital mechanisms [5]. Emotional behavior should be considered as one of the aspects of species-specific behavior, which is associated with adaptation to changes in the environment and the development of new reactions. All structures of the limbic system and the hypothalamus [6], which localize the integrative functions of the central nervous system, are involved in the development and differentiation of emotions. The integrative functions of the central nervous system lie not only in the organization of the cognitive activity of the cerebral hemispheres and emotions, but also in the basis of the sleep-wake cycle, which is vital for the body.

[2]. Violation of the circadian sleep-wakefulness process is considered as a phylogenetic adaptation to the temporal structures of the surrounding world [7].

The limbic system attaches particular importance to purposeful activity and controls behavioral acts, the nervous basis of which is laid in the hypothalamus, and which in humans constitute emotional behavior. Hypothalamus- it is a phylogenetically ancient part of the brain, which is the main nerve center responsible for the regulation of the internal environment of the body and governing all homeostatic processes [6]. The integrative functions of the hypothalamus are provided by vegetative, somatic and hormonal mechanisms. Moreover, all regulatory processes are carried out mainly with the participation of the autonomic nervous system and / or the endocrine system [2].

The study of literature data showed the presence of two methodological approaches to the study of the functional asymmetry of the hemispheres. Numerous facts contradict the point of view about the presence of a pronounced specialization of emotional functions. They show that emotional hemispheric asymmetry is largely determined by the nature of the cognitive activity that is carried out in response to the action of stimuli that cause an emotional reaction. At the same time, many types of cognitive activity can determine hemispheric asymmetry in the process of emotional response to perceived and unconscious stimuli. However, the richest material on clinical and morphological correlations testifies to the greater involvement of the right hemisphere in the mechanism of emotion regulation, especially of the negative sign [3].

Studies of interhemispheric asymmetry of the brain are carried out in different directions, using electroencephalography and registration

evoked potentials, applying psychological testing, using modern methods of functional magnetic resonance imaging and transcranial magnetic stimulation. In the works of prof. Gimranova R.F. [8] provides data on the use of a non-invasive method of transcranial magnetic stimulation for the correction of impaired central nervous system functions, both in the pathogenesis of clinical manifestations of the development of interhemispheric asymmetry in patients, as well as in the development of features of interhemispheric asymmetry under conditions of functional loads in healthy people.

Symmetry-asymmetry principles are used in method electropuncture diagnostics according to R. Voll (EAF) [9] when establishing relationships between specific biologically active points (BAP) of the skin with the corresponding anatomical structures of organs and tissue systems, the development of which was the method of electropunctural vegetative resonance test (ART) "IMEDIS-TEST" [10].

purpose of work to present the results of express diagnostics of violations of the sleep-wake cycle and signs of emotional asymmetry of the brain using the non-invasive method of electro-acupuncture autonomic resonance test (ART) "IMEDIS-TEST".

Testing for signs of disturbance in the sleep-wake cycle was carried out according to the criteria of a depressive episode according to ICD-10 (section V. Mental disorders in general medical practice. WHO, 1996) and the criteria for depression adopted in DSM-4.// DSM-IV, 1994).

When diagnosing by the ART method, the principle of symmetry-asymmetry of organs and tissues is carried out through a filter or test-indicator "lateralization" of Ventriculus cordis dexter D4 or Ventriculus cordis sinister D4, followed by an indication of the target organ or process

Research methods

1. Theoretical analysis of literature data and medical documentation, mathematical and statistical processing of results. Testing according to ICD-10.

2. Conducting computerized electro-acupuncture express diagnostics according to the ART method and computerized electropuncture diagnostics using the EAF method. The autonomous apparatus "MINI-EXPERT-DT" was used and "Medication selector" is a remote block of the "IMEDIS-BRT-PC" apparatus. Measurements by the EAF method and the ART method were carried out in accordance with the established technology.

Organization of research

35 patients of the age category from 19 to 55 years old took part in the research, 20 of them were female and 15 were male, among whom were active athletes. At the time of the research, all patients are not registered in a neuropsychiatric dispensary and are engaged in labor or sports activities.

To verify the signs of emotional asymmetry of the cerebral hemispheres, symptoms of sleep disturbance, fatigue and decreased activity, low or sad mood should take the leading place,

two of which last daily for at least 2 weeks

When filling out the questionnaire, everyone had to answer questions.

In the process of EAF diagnostics, representative BAPs were tested on the endocrine system meridian End 20 Hypothalamus at the border of the transition of the scalp into the fold leading to the apex of the ear during lateralization to the right and left, the normal value of IU is equal to 70-80 USD.

Interpretation results measurements BAT points hypothalamus was carried out according to [9].

Vegetative indicators emotions carried out on electric skin conductivity, which are recorded from the palms of the hands: hand-hand. The value of this test is related to the identification of the type of nonspecific reactivity of the body and the tone of the autonomic nervous system as a general reaction of the body. The reactivity of the body is considered as a response in the form of changes in vital activity to the impact of the external and internal environment. In this case, reactivity significantly depends on the congenital type of constitution, age, sex, state of the nervous and endocrine systems, circadian rhythms and can be normal (normergy), insufficient (hyperergia) and excessive (hyperergy) [9].

It is known that a person's behavior is the more effective, the closer his level of wakefulness is to a certain optimal level (the state of normergy). With higher values of the subject's readiness for action, his behavior becomes more disorganized. At low values, this readiness for action decreases and can lead to falling asleep.

The diagnostic algorithm by the ART method was carried out according to the use of ART in the clinical practice of a physician [11].

In the diagnostic algorithm, in addition to identifying indications of the impact of external negative loads on the human body, such as: hepatogenic, radioactive, electromagnetic, toxic, psycho-vegetative, psychological and mental indicators were determined to determine the primary affected system of the body and its influence on disorders of various parts of the brain through the test-pointer Cerebrum region motor D4 (motor area of the brain) and then, using this test-pointer as a filter, we determine the lateralization of the process through the test -Pointer Ventriculus cordis sinistra (dextra) D4. Following the same scheme, we receive an indication of the state of the hypothalamus through the test-pointer Hypotalamus D3 or test-indications of its other potencies. With the right lateralization, we receive indications of the emotion test-preparation or, through the available possibilities of the drug selector of the IMEDIS equipment, for the Bach Flowers test-preparations, R. Martin's preparations (Flowerplex), ROSTOK essences.

Sleep disturbances were regulated by induction programs P5 "rest", P6 "sleep" and P18, which are designed to regulate the sleep-wakefulness cycle by using the physiological frequency spectrum of brain rhythms in the frequency range from 1 to 30 Hz with an amplitude of oscillations from 8 to 100 μ V, mainly in slow sleep mode.

The discussion of the results

Analysis of the results of the ICD-10 survey found that out of 35 respondents, sleep disturbance is 96%, i.e. 33 out of 35 patients have reduced or

sad mood - 66% and loss of interests and feelings of pleasure - 44%, decreased activity - 100%.

The test for electrical conductivity of the skin "hand-hand" in all patients was in the range of 60–75 conventional units.

The value of the representative BAP End 20 The hypothalamus on the meridian of the endocrine system was normal in none of the patients and amounted to either 62-68 conventional units or 82-86 conventional units.

According to the diagnosis of ART, we received pointers to mental burden and to the right lateralization of the motor area of the brain in 100% of cases. Were obtained pointers to the target organ - the Hypothalamus in potencies D3 – D5 and pointers to the test drug "Opal" for the regulation of emotional state.

After individual recovery in all patients, the results of the skin electrical conductivity test were in the range of 82–87 conventional units.

According to the diagnosis of ART, there were either no indications of sleep disturbances, or the induction program P5 "rest" was tested. The indications for the target organ hypothalamus were in the D6 / D10 potency, there were no indications for the use of the test preparation "Opal".

Using the method of electropunctural diagnostics of ART "IMEDIS-TEST" it was found that all patients when testing their mental state received instructions with a hyperergic reaction, equal to the VI-VIII degrees, and instructions on the use of induction programs for the regulation of brain rhythms. Therefore, additionally through a Zincummet filter. LM18 tested the induction programs P5, P6 and P18 for the revealed values of mental load.

Violation of the sleep-wake cycle in patients was accompanied by high values of the biological index - from 16 and more depending on the patient's age and his physiological state, as well as the values of adaptation reserves - from RA good 1 tbsp. to medium 5 tbsp. and below.

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Conclusions:

1. The results of diagnostics by the method of electropunctural vegetative resonance test "IMEDIS-TEST" made it possible to reveal the possibility of diagnosing the right-sided emotional asymmetry of the cerebral hemispheres and to correct the diagnosed functional state with a positive effect.

2. It is necessary to continue research data to increase statistical material and increase the likelihood of a reliable estimate.

Literature

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