

On the essence of the physicochemical processes of the body's memory

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The mechanisms of memorizing information, their physicochemical essence have long agitated the minds of mankind. These mechanisms, their understanding are not only of an important retrospective, research, and forensic nature, but also allow a more complete assessment of the state of the body in real time, as well as to give prospective forecasts of various orientations and to select an appropriate treatment for the situation. The use of biosubstrates - carriers of information about the body - such as hair, nails [1, 2, 3, 7, 8], teeth, bones [4, 5, 6] makes it possible to judge the quantitative and qualitative characteristics of the parameters of exposure to humans, and namely, toxic substances, radiation and give their quantitative dose estimate.

Of the well-studied objects of the body's memory, cicatricial changes in tissues can also be described, speaking, for example, for histologists and pathomorphologists, about the quantitative and qualitative characteristics. damage to various organs and systems, such as degenerative changes in the lungs, for example, pneumosclerosis, liver - cirrhosis, heart - myocardiosclerosis, etc. etc. On the basis of visually recorded memory objects corresponding to structural changes and lesions of certain organs, a methodology for iridology is built or diagnostics of an organism based on visually detectable structural changes in the iris of the human eye.

The evolutionary development of all living things under conditions of a wide range of electromagnetic effects from hard gamma radiation to long-wave radiation has formed a new type of signaling system that informs the body about all types of this impact through it. Paleogeological studies have shown that the formation the electromagnetic and radiation fields of the Earth are inherently interconnected, and all life on Earth in order to survive had to be adapted to a wide range of electromagnetic effects at certain levels [10]. That is, an organism, devoid of a receptor assessment of radiation exposure, evaluates it through other wavelengths of the electromagnetic component in the conditions of the entire available complex spectrum of electromagnetic exposure according to the principle of a multilevel transmitting and receiving recording a reproducing device based on biologically significant trace elements and acting on the basis of known electrochemical and physicochemical laws.

Several main theories describing the therapeutic effect of electromagnetic radiation on animals and humans. Although none of them received reliable experimental confirmation, we will try to analyze them.

The theory of I.V. Rodshtat (1985, 1991) assumes the activation of Rufini's bodies due to irradiation of water molecules associated with the protein structures of skin collagen and changes in the piezoelectric properties of collagen. Next, the preganglionic synaptic neurons of the lateral horns are excited

spinal cord and located in the autonomic ganglia of the MYTH-neurons. At the same time, the processes of biochemical reception take place, i.e. reception at the level of individual cells equipped with biochemical blocks pentose phosphate cycle and oxidative phosphorylation. In this case, biologically active substances (biogenic amines, neuropeptides, prostaglandins, alpha-2-microglobulins) are released into the blood and tissue fluid. These substances cause further changes in the body, forming the healing effect of electromagnetic radiation.

According to the theory of Yu.I. Khurgin (1987, 1991), water molecules - rotators interact directly with electromagnetic radiation. This interaction is accompanied by an increase in the exchange of molecules between the hydration shell of physiologically active proteins and the environment. Strengthening the metabolic process stimulates the activation of the activity of proteins, including receptors and channels. Thus, rotator molecules are universal nonspecific mediators of the transfer of electromagnetic radiation (EMR) to the input of the primary physiological response system.

According to the concept of N.D. Devyatkova and M.B. Golanta (1989, 1991), radiation affects the lipid bilayer membranes of the cell. In this case, the membranes appear acousto-electric fluctuations affecting metabolic processes. The authors of this concept believe that living organisms emit natural electromagnetic waves of the EHF range in order to control internal processes. Externally, EMP, imitating the own radiation of a biological object, restores homeostasis.

In accordance with the concept of D.S. Chernavsky (1989), E.P. Hizhnyak (1991) the biological effect of EMR is determined by micromassage microanatomical structures of the skin due to uneven distribution of the field and spatial displacements of local overheating. The authors of this concept believe that there is an "autodiagnostic" system in the body, the functioning of which is based on the principle of pattern recognition. Microwave radiation, influencing the work of this system, helps to restore homeostasis [10].

It is also interesting that the same nerve fiber can be used to transmit different encoded information at the same time, while the transmitted information is packed into specific ranges of the amplitude-frequency characteristics of the EMP. Upon receipt of the encoded an electromagnetic pulse transmitted along the walls of the nerve, neurotransmitters of various nature receive a command to activate [13].

So, the theories considered in general are united by the fact that they are firstly based on certain piezoelectric properties of the body, and secondly on the activation of neuro-biological processes polarized molecules-producers.

Recall that the impulses of the action potentials of the nervous system are associated with the movement of ions, as well as larger charged particles. At the same time, the emergence of charges in nerve fibers occurs when the position of sodium and potassium ions changes, which all the time retain their positive charges, i.e. a change in the mutual arrangement of potassium and sodium ions with the same charges occurs only when these ions refer to one molecule polarized in an electric field. In their own way

chemical composition, these molecules belong to the double potassium-sodium salt of tartaric acid with four molecules of crystallization water, more known as Rochelle salt with the formula $\text{KNaC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$ [9].

This compound stands out among other compounds in the body in that it has the most unique piezoelectric characteristics among other piezoelectrics in the temperature range from minus 16 to plus 24 degrees Celsius, when, under the influence of action potentials, the Rochelle salt molecules change their orientation in an electric field. It must be taken into account that in a living organism these molecules are in solution, i.e. without 4 water molecules and, therefore, have an extremely high, unique and in no way repeatable value of the dielectric constant in the body

- up to 10 thousand units at 22 degrees Celsius, which distinguishes them quite significantly in comparison with other structures of the body that produce the piezoelectric effect.

Any kind of impact on a person, such as external factors of influence - radiation, toxic substances (alcohol, drugs, etc.), etc. etc., as well as internal factors - neuropsychic activity, etc. cause a violation of the degree and quality of human saturation with products with piezoelectric activity. Thus, the synthesis, transformation and decay of substances with a piezoelectric effect in the body lead to the emergence of a constantly operating third signal system communicating with the external and internal world in the language of direct and reverse piezoelectric effects. Internal mechanical oscillations - tonic contractions of the muscles that maintain the tone of muscles and organs, lead to a direct piezoelectric effect, when particles of Rochelle salt, depending on their characteristics in terms of quantity and quality, emit electromanite signals of various spectral-frequency characteristics into the external environment. At the same time, the electromagnetic signals of the outside world are also different

spectral-frequency characteristics form, in turn, in spatial and mechanical characteristics - the size, structure and shape of Rochelle salt microparticles in the human body with sizes from fractions of a micron to fractions of a millimeter [9]. That is, the body receives and emits electromagnetic signals through the system of their recording, preservation of recording and playback, which is determined by the quantitative and qualitative properties of Rochelle salt.

Further participation in the biochemical interactions of Rochelle salt leads to the formation of those mineral structures, which, according to a number of authors and a number of theories, are a paramagnetic basis for the recovery of radiation doses of various spectra from X-ray to hard gamma radiation in the enamel of teeth and bone tissue. when using the technique of electron-paramagnetic resonance [6]. In any case, it is necessary to imagine that the radiation surrounding us

impact inextricably and is constantly associated with all frequencies ami electromagnetic spectrum, recordable, retained and reproducible through the mechanisms of piezoelectric activity.

It is well known that all cicatricial tissues of the body also have extremely high piezoelectric activity [11], which is recorded in a number of techniques by the high activity of biopotentials [11]. This suggests that in

As a result of mechanical or any other micro- and macro-damage, the connective tissue increases its piezoelectric activity, along with impaired neuro-impulse activity. The degree of activity of synthesis and decay in the connective tissue - the mesenchyme and the formation of degenerative micro-cicatricial changes, by the way, is the cornerstone of the theory of homotoxicology by H.H. Reckeweg and other researchers of connective tissue pathohistomorphology [14]. That is, in our understanding of the theory

homotoxicology, the converted toxin into homotoxone is not an abstraction, but Rochelle's salt, which stores information about the levels and patterns of impact on the body. All this is evidenced by the existence of so-called phantom pains after amputation of a limb, when the electrophysiological activity of the lost limb is retained through a system of recorded potentials on a carrier - a ferroelectric for a long time. An increased meteosensitivity of scar tissue is also known, which manifests itself in any sensations, which is a very indicative diagnostic

a sign even in the absence of external cicatricial changes. By the way, meteosensitivity in a number of patients is also a sensitive predictive property, for example, to the same weather and magnetospheric disturbances.

Thus, the recording of information, its preservation, reproduction is carried out through Rochelle salt, as a product of the metabolism of the nervous activity of the organism - this is a kind of analog recording device with high selectivity and a large amount of information characteristic of each organism. So, for example, in the method of vegetative resonance test, we can establish the fact of an infectious disease (and even in a number of generations - the so-called homeopathic miasms), the facts of the use of drugs, etc. etc. This means that this organism, due to its bioelectric activity in the mode of creating rest and action potentials under the influence of an infectious or any other agent, develops Rochelle salt structures that have quantitative, qualitative, and structural-spatial differences. This process can naturally be fixed at the genetic level and form various genetic predispositions of the body, while normally the electromagnetic characteristics of tissues, organs and systems are produced, corresponding to the average standard state of the body in the so-called limits of normal health parameters, or, conversely, corresponding to some process pathology - disease. Further transformation of the analog signal into digital and the actual materialization of any building changes in the body occurs at the stages of synthesis and decay processes - anabolism and catabolism, that is, the main types of metabolism of proteins, fats, carbohydrates, minerals and nucleic acids. So, for example, under the influence of stress signals, a strictly defined series of protein structures from amino acids is synthesized,

Any homeopathic effect, like exposure, roughly speaking, to toxic substances, also leads to corresponding violations

processes of synthesis and utilization of ferroelectric, which, in fact, affects the mechanisms of effective action of homeopathic remedies, and also makes it possible to use, for example, homeopathic sugar crumbs, which acquire new piezoelectric properties during the production process, followed by the transmission of these ultra-weak signals into the body.

Constant reproduction and utilization of products - carriers of information with the piezoelectric effect, in the course of life processes continuous until death, causes the formation of both biopotentials recorded by standard electrophysiological methods, and biopotentials with evolutionary and historically established localization in the body - the so-called biologically active points and meridians, chakras, that is, localized biopotentials-ferroelectrics, which can only be seen in a sufficiently powerful alternating electromagnetic field, using the inverse piezoelectric effect - the Kirlian method or as the gas-discharge visualization method is now called and other similar methods. All these biopotentials produce the cycle of bioelectricity in the body,

inextricably linked with the main types of exchange. It is important to note that a significant change in the ecological situation or the human environment (ubiquitous electrification, chemicalization, etc.) over the past 50 years after the creation of R. Voll's method [14], already forced to resort to new meridians of bioelectric activity in comparison with meridians ancient oriental medicine 5 thousand years ago, suggests that the structure of the third signaling system - the system of piezoelectric activity

- is indeed the most sensitive to factors of influence, both external and internal, and is quite adaptively changeable. Any physical effects on a person, such as: color, light, sound, i.e. any electromagnetic energy, as well as chemicals, pressure, temperature, biological objects, etc., apparently lead to changes in the characteristics of the structures of the body's piezoelectrics ... These structures, on the one hand, accompany the receptor activity, and on the other hand, they directly respond to electromagnetic signals.

Once again I would emphasize, what given structure piezoelectric activity really since still exists and historically, it was developed by living organisms to register a number of extrasensory (non-receptor) influences and to develop an adequate response in order to increase adaptability to the environment and, apparently, mainly to unstable characteristics of the radiation background, which strongly depends on the activity of the Sun and the Earth's magnetosphere [11]. Almost all mammals are in complex conditioned reflex activity and, thanks to this signaling system, avoid extreme natural phenomena, and some of them have retained a pronounced piezoelectric activity of the body, which is the main system of communication and cognition of the world, as, for example, in cetaceans, dolphins, bats, dogs etc.

Bronnikov, although in spite of everything, of course, natural selection continues and an experimental base for research data is developing.

Already now, the use of memory mechanisms of the body is accompanied by attempts to read and transmit information from one living object to another.

So in the early 60s, Michel Jouvet - professor of experimental medicine at the University of Lyon and a member of the French Academy of Sciences - while studying the behavior of animals during the phase of REM sleep, he discovered that the destruction of neurons of the "blue nucleus" - nerve cells located in the brain stem, blocks the fall of muscle tone during paradoxical sleep, that is, animals in the phase of REM sleep with their eyes closed showed motor activity, describing the content of dreams [10]. The phenomena of sleep movements - sleepwalking in a person can also be caused when using EMP during slow wave sleep by translating it into paradoxical sleep. In the future, this phenomenon will make it possible to read information about dreams [10].

Attempts to translate sensory functions from person to person, as well as the restoration of lost sensory functions by creating relaying devices into the human nervous system - visual, auditory, olfactory images, that is, the development of such a science as Bionics, the leading biomedical laboratories of a number of universities in England, USA and Japan are engaged. Ongoing research in the field of bioresonance medicine has already shown promising possibilities of rewriting information from the same patient, as well as to other patients for solving a number of clinical tasks, for example, to normalize labor, restore neuromuscular motor activity, increase learning in foreign languages, and etc.

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