On the energy-informational component of acupuncture, homeopathy and bioresonance therapy V.G. Zilov (First Moscow State Medical University named after I.M. Sechenov, Moscow)

About energyinformational component in acupuncture, homeopathy and bioresonance therapy VG Zilov IM Sechenov First Moscow State Medical University (Moscow, Russia)

SUMMARY

During the development of integrative medicine, knowledge of the energyinformational component of various methods of therapy contributes to an increase in the effectiveness of therapeutic measures. The article provides an overview of modern studies that consider the state of human disease on the basis of energy manifestations and informational ideas about the development of the disease. Describes the healing mechanisms of acupuncture, homeopathic medicines and bioresonance therapy based on the energy-informational principle.

Key words: acupuncture, homeopathy, bioresonance therapy.

RESUME

During the development of integrative medicine the knowledge of energyinformational component of therapy enhances the effectiveness of medical interventions. The paper gives an overview of current research that investigate the state of the human disease basing on energy manifestations and informational representations of disease development. The therapeutic mechanisms of acupuncture, homeopathic medicines and bioresonance therapy on the basis of the energyinformational principle are described.

Keywords: acupuncture, homeopathic medicines, authenticity, bioresonance therapy.

It is common knowledge what for normal life organism not only metabolism is necessary, but also energy exchange, and these processes are interrelated. Any changes in substances in the body are accompanied by many different chemical, mechanical, thermal and electrical phenomena.

At the same time, the transformation of energy occurs continuously. There is no change in matter without the conversion of energy, and there is no exchange of energy without the exchange of matter.

Due to the fact that the quantitatively predominant result of energy processes occurring in the body is the formation of heat, the main attention of physicians and biologists has been focused on the assessment of thermal phenomena. Determination of the thermal energy released in the body and the conversion of mechanical energy of external work into units of heat has served and continues to be a way of quantifying the body's energy costs and an indicator of the intensity of metabolic processes.

However, in recent years, the attention of researchers has been drawn not to the problem of calorimetry, but to the study of the physical fields that are generated by the body in the process of functioning. At present, the existence of electromagnetic and acoustic fields around a person has been established, and information about this is included in the biophysics textbook (edited by Prof. V.F. Antonov) of medical universities. In particular, the main 4 ranges of electromagnetic radiation and 3 ranges of acoustic radiation are distinguished. Sources of electromagnetic fields in different frequency ranges are different. Low-frequency fields are created mainly during physiological processes accompanied by electrical activity of organs: the heart (the characteristic time of the processes is of the order of 1 s), the brain (0.1 s), the intestines (1 min.), Peripheral and nerves (10 ms). Frequency spectrum, corresponding to these processes is bounded from above by values not exceeding 1 kHz [2]. Radiation in the microwave and infrared ranges (from 10 to 1014) is thermal electromagnetic radiation. Its total intensity in the IR range is high and amounts to about 10 W / m2 [2].

In recent years, researchers have focused on human electromagnetic radiation in the 10–10 Hz range, which is called subtle internal energy. The analysis of this radiation contributed to the formation of the so-called "vibration medicine", which considers a person "as a multidimensional organism, composed of physical-cellular systems in dynamic interaction with a complex of regulatory energy fields" [19].

According to the concepts of "vibration medicine", which are consonant with the postulates of traditional Chinese medicine, damage to any organ or part of the body, in addition to disturbing, for example, their functions is accompanied by disturbances in their energy metabolism.

With energetic manifestations organism closely connected and information processes that ensure the normal life of the organism, its functional systems, the implementation of the principle of self-regulation. The importance of information for the body is confirmed by numerous examples of duplication of the receptor apparatus, a variety of projection areas of internal organs on the skin, iris, etc.

The result of this is the reliability of self-regulation mechanisms that provide homeostasis. Therefore, the attempts of modern researchers to consider both various forms of life and the state of a person's disease on the basis of the information principle are not accidental.

Without denying that the disease is inherently disturbances in structures and / or functions with characteristic signs of pathology at the cellular and molecular levels, a number of authors consider the disease from the standpoint of information concepts. The disease is an "information disorder", "disorganization", which "nevertheless obeys some laws and thus includes some elements of order "[15]. Health, as a manifestation of life, is seen as an expression of the complex behavior of nature. It is important to note that "the organism as a whole develops as an open system in which information controls both matter and energy, while not suppressing, but sometimes even encouraging chaotic elements. Life is a metastable state, which is maintained and reproduced as a phenomenon far from equilibrium, thanks to the exchange of substances and energy between the living system and the environment "[20, 21].

If we consider the disease as an informational disorder and as a violation of energy processes in individual organs and parts of the body, it becomes obvious that the molecular approach, which studies only one aspect of energyinformational relationships, despite its undoubted importance, is not sufficient. Therefore, attempts to use new approaches, new methods and new concepts in order to improve the efficiency of medical care for those in need are understandable.

Energy-informational mechanisms of acupuncture The aim of this work is not to touch upon the multifaceted, first of all "material" aspects of acupuncture, which are sufficiently reflected in the fundamental works of A.M. Vasilenko, V.S. Goidenko, A.T. Kachana, D.M. Tabeeva and in recent publications on neuro-immuno-humoral mechanisms of normalization by acupuncture of the extracellular matrix, disturbed by the pathological process. We wanted to draw attention, first of all, to the energyinformational processes that arise in the body when using acupuncture, the real picture of which needs scientifically substantiated evidence.

As noted above, one of the tenets of Chinese medicine is that a violation of energy metabolism (strengthening or weakening) is inevitably associated with a developed pathology. Hence, the logical conclusion is the normalization of disturbed energy metabolism with the help of acupuncture and, thereby, ensuring the recovery of the body.

In this case, natural questions arise both about the nature of energy and about the ways and mechanisms of its distribution in the body. The complexity of these issues lies in the fact that classical acupuncture is based on the general theoretical provisions of traditional Chinese medicine, "expressed in archaic lexical constructions that are unusual for the European mentality" [2].

According to the concepts of traditional Chinese medicine, the primary substrate of all things is designated as "qi" or "Ki", and, circulating along the meridians or acupuncture channels, this energy obeys a circadian rhythm with 2-hour periods of maximum and minimum activity in each of the 12 pairs of symmetrical body meridians ...

However, among the representatives of traditional Chinese medicine, there are various explanations for the terms "vital essence", "Ki", "spirit". So, Jina-Xian believes that "Ki" is information, "life force" is a vector and dynamic power of information, and "spirit" has a regulating

function, is located in the brain, being an information center [27].

A somewhat different concept is presented by Liu-Moan [24], according to which the meridians conduct "Ki" (vital energy) and participate in blood circulation. In this case, of course, both "Ki" and blood have different characteristics and effects and are carried out in different ways. Interesting ideas about the system of meridians in the narrow and broad sense. At the macro level, the meridian system is an extensive system that includes the circulatory, nervous, endocrine and immune systems. At the micro level, it is the immune-endocrine system that is the key mechanism. However, for the final clarification of the essence of meridians, according to the author, it is necessary, first of all, to discover the law of how matter, energy and information act on the physical body and mental functions.

It is possible to continue the discussion about whether "Ki" is energy or information, although, as ZD points out. Skrypnyuk, "the concept of chi (" Ki ")" corresponds to the modern concept of information ... "Since either matter or energy can serve as a carrier of information," ancient thinkers presented Chi as a hieroglyph depicting both matter and energy "[11]. He also postulates the possibility of the existence of links of information channels, "the nature of information transmission through which is not humoral or nervous ... It can also be carried out through mechanical or electromagnetic interaction of cells, for example, with the help of mitogenetic radiation, infrared, electromagnetic radiation, etc. ".

One of the approaches to elucidating the energy-informational therapeutic effects of acupuncture is the approach from the standpoint of classical electrodynamics. "The energy of qi (" Ki "), divided into yang-yin in their constant interaction and dynamic equilibrium, is quite consistent ... integration based on an electromagnetic oscillatory circuit, if qi is replaced by inductance, and yang-yin is represented as a capacitance and a resistor. Then biologically active points represent additional points of energy regulation in the form of a nerve coil around the corevessel, in which electromotive force will be generated when the nerve is excited or weaken when the excitation is removed ... "[7].

As for the physical characteristics of the acupuncture meridian and a pair of meridians, according to V.V. Ostapova, "pairs of yang-yin meridians make up the contours of a capacitance and a resistor, and the meridian itself is a monoclonal formation with its electromagnetic properties resonant for this meridian and its pair".

However, whatever the interpretation of "Ki", the role of meridians in the energyinformational mechanisms of acupuncture, today it is impossible to "detach" these mechanisms from the participation of numerous "substances", ranging from the impact on the acupuncture point and ending with complex difficult-to-predict reactions at the level of the extracellular matrix.

Homeopathy as a method of energy-informational medicineConsidering the mechanisms of action of homeopathic medicines, it should be noted that the decisive importance in the positive therapeutic effects of homeopathy belongs to the method of obtaining dilutions. Even S. Hahnemann insistently pointed out the need for numerous, up to 100 times shaking of homeopathic preparations at each stage of their dilution. It follows from this that the solution to the mechanisms of action of homeopathic medicines lies in the processes that occur during their preparation.

The answer to this question can be obtained if we turn to the concepts of recent years about the biophysics of water and other solvents.

It was found that during the automated preparation of homeopathic preparations with obligatory shaking, as a result of friction of liquid molecules against glass walls, an electric current is generated, and at each stage of potentiation, the intensity of the resulting electric current increases [22].

As noted by G. Rene and V. Gutman, a solution in water shows the greater similarity with "pure" water, the lower the concentration of dissolved substances in it. "At each stage of dilution, the concentration of the molecules of the mother tincture decreases, and information is not lost, but is distributed throughout the more diluted solution. With the improvement of the dynamic aspects, the original information from the mother tincture is integrated into the vibrational picture and becomes a part of it, which is dynamically amplified by higher hierarchical levels "[10].

To date, evidence has been presented for the unique properties of water - the so-called phenomenon of water "memory".

According to K. Smith and G. Anagnostatos, the "memory of water" is provided by a special aggregation of water molecules in the form of clathrates [12, 14].

The term "clathrate" (from the Latin clathrus - lattice) was proposed by Anagnostatos for the cell-like shell of the solvent around the molecules of the parent substance or cavity. The possibility of the existence of "cavities" in liquids is generally recognized, since, in particular, in water, its molecules combine into pentagonal or hexagonal forms due to hydrogen bonds [15]. It is important to note that clathrates are formed not only around the molecules of a soluble substance, but can also exist and maintain stability if the substance leaves the niche. "With successive dilution and dynamization, new clathrates are formed around nuclear clathrates, which are ultimately also structured by the solvent" [12].

Thanks to the ordered, consistent organization of hydrogen bonds, even the "niches" themselves are capable of coherent vibration in resonance with the magnetic field.

The vibration frequency depends on the shape and length of such structures (in turn, determined by the soluble substance), as well as on the degree of progressively structured water in the process of dynamization.

However, there are other explanations than the formation of clathrates, the effects of high dilutions of homeopathic medicines, based on the physical phenomenon of isotopic differences (isotopicity), that is, on the well-known fact that most chemical elements are a mixture of stable isotopes (atoms with a fixed number of protons, but different number of neurons). These are the views of A.A. Berezina about the so-called "Information-bearing pattern" (informa-tion-earring pattern) due to the different structural organization of different water molecules. These patterns, called "ghosts of the isotope lattice," can form in a solution of some molecules under the influence of energy during shaking [16].

Close to the theory of A.A. Berezin turned out to be the concept of positronium - a very light isotope of hydrogen [18].

The future development of water biophysics will make it possible to clarify whether the transmission of information in high-dilution homeopathic preparations is carried out using clathrates or light isotopes with the participation of positronium, but it is already clear today that homeopathic therapy is, first of all, information therapy.

However, the term "informational action" in scientific terms, according to G.A. Yusupov, is incorrect, since "information without adequate energy cannot have any effect" [13]. He notes that "energetic" action does not have specificity, and in case of energy-informational interaction, the action will have selectivity, in other words, specificity, with minimal vibration energy.

It is not by chance that we draw attention to the possible "energetic" side of high dilution homeopathic preparations. The water in them, as K. Smith noted in 1990, does not emit or generate an electromagnetic field, that is, it is not a source of coherence for other systems, but remains, as it were, a "mirror" of coherence through weak relationships between external magnetic fields and those that are formed "Inside" the water. If the given physicochemical structure of water released energy, then after a short time it would be "energetically depleted". If the interaction occurs as a result of a certain resonance between the coherent pattern of the solvent (caused by the structural features of the solute) with the frequency pattern of the organism (determined by the state of the organism itself, normal or pathological),

It seems to us that the comparison of this phenomenon with a book proposed by P. Bellavite and A. Signorini (1994) is successful. The book contains information, but does not "radiate" it. Information can be fixed on paper for a long time, but it becomes significant in the sense of influencing the reader's thinking only when it is in "tuning" with the reader's receptor and cognitive systems (when the concept of tone, vibration and frequency is embodied in a picture).

It has been established that a living organism is sensitive to extremely weak electric fields and, in particular, to their certain frequencies. At the same time, the study of the physical properties of water suggests that water itself can be a source of electromagnetic oscillations.

This, in turn, means that the disease can be considered not only as a result of functional or molecular disturbances in classical concepts, but also as a result of a breakdown of the entire network of electromagnetic connections based on longterm relationships between elements. (molecules, nerve centers, organs, etc.), the vibration frequencies of which are coherent and specific and, thus, capable of resonance. That is, the disease can be viewed as "a disorder of internal oscillators and their communications" [15].

Disruption of the oscillations and their associated relationships can be brought back to equilibrium as a result of a change in frequency when interacting with another oscillator. According to these concepts, homeopathic medicine can act on the patient as an external source of frequency.

It is believed that "a dynamized and potentiated homeopathic remedy can be considered as a small amount of a substance containing elements that oscillate in phase (coherently), capable of transmitting these frequency oscillations through a resonance process to biological fluids (in turn, consisting of water), as well as a complex "Metastable" structures, an object of nonlinear behavior, capable, in turn, of oscillations (macromolecules, alpha-helix, membranes, fibrous structures, receptors). Thus, a connection can be made between the frequencies of the drug and the oscillators, which are in living organisms, disturbed by the disease "[15].

Signals, even if they are extremely weak, but endowed with highly specific information and capable of sounding in unison with the receiving system (recipient), can act as regulators, especially when the deregulated system is at a crossroads, as it were ("bifurcations" in terms of the theory chaos), and when the choice to move in one direction or the other is associated with minimal efforts on the border between order and chaos [26, 27].

A long-term study of the therapeutic effects of homeopathic preparations allowed A.A. Komissarenko (2010) make the following generalizations of biophysical mechanisms.

Medicinal information that comes with a homeopathic preparation into the body, in the form of a coded signal, passes through the fibers of the autonomic nervous system to the control centers of the brain. Recognition of the necessary information contained in a homeopathic preparation is carried out in neurons when the frequency of its oscillations coincides with intracellular wave processes. Signals entering the nuclei of neurons affect their genetic structures, and in the case of resonance with DNA molecules, activation of vegetative-visceral functions, the immune status of the organism increases, leveling the negative effects of pathogenic factors on homeostasis or correcting it in various diseases.

Based on many years of clinical observations, biological and physical experiments, AA Komisarenko proposed an original concept explaining the changes in the effect of homeopathic drugs on the body as potentiation: "the activity of a homeopathic drug is due to the shift in the phase of its electromagnetic wave relative to the vibrations of xenobiotic molecules arising in the process of potentiation". "The voltage of the electromagnetic wave of a homeopathic preparation, shifted by half the phase of the xenobiotic wave, becomes opposite to the voltage of oscillations of pathogenic molecules, and they begin to cancel each other out ... This principle lies in the basis of the body's counteraction to toxic substances and pathogens of infectious diseases that penetrate or form in it "[6].

If we take into account the ability of the electromagnetic waves of a homeopathic preparation to express the genes of neurons with similar oscillatory characteristics, then the therapeutic effect of high specificity and the positive effect of correcting disturbed homeostasis becomes clear.

Considering the role of wave factors in the therapeutic effects of homeopathic remedies: correction of homeostasis disturbed by the disease, we naturally do not forget about the role of "substances" at all levels of regulation and, above all, of cytokines at the level of the extracellular matrix.

About bioresonance therapy

The method of bioresonance therapy (BRT) is rightly associated with the name of Franz Morel, who in the late 70s of the last century proposed to consider the spectra of electromagnetic fields and radiation in treatment. In the BRT system developed by F. Morel, along with the patient's own electrical oscillations (endogenous BRT), treatment with the help of external electromagnetic fields and radiation was also used [25].

The mechanism of BRT therapeutic action formulated by F. Morel is based on the assumption that there are two types of electrical oscillations in the human body: "physiological" or "harmonious" and "pathological" or "disharmonious". According to many authors, physiological oscillations are sinusoidal or close to them in shape, while pathological ones differ significantly from sinusoidal ones due to the complexity of their spectrum [17, 20].

Speaking about the periodicity in the rhythm of oscillatory processes, as evidence of illness, M.Yu. Gotovsky emphasizes that "pathological" fluctuations in the human body are characterized by a relative constancy of frequency and amplitude, while "physiological" fluctuations are characterized by inconsistency of frequency, amplitude, wide spectral composition and have a stochastic (from the Greek Stochasis - random, probabilistic) character [1] ...

The processing of electrical vibrations entering the BRT apparatus from the human body is carried out by inverting (changing the phase by 180 °) "pathological" components and returning them to the patient. As a result of this, the "pathological" vibrations are damped, while the "physiological" ones intensify and also return to the body.

With exogenous BRT, treatment occurs using electrical oscillations or external electromagnetic fields with a fixed frequency or a set of frequencies, empirically selected and clinically tested. It is believed that exposure to exogenous BRT is directed to a specific organ or system of human organs in order to obtain a therapeutic effect [1].

A feature of the BRT method is that the intensity of the electrical vibrations entering the human body is so small that they cannot lead to the initiation of the excitation process in the corresponding structures of the body. Hence, the main focus should be on comparing the value of the frequency of natural vibrations with the frequency of external ones, as well as the process of damping in biological media.

The attitude of the supporters of the BRT method to the term "resonance" is special. The term "resonance" should be interpreted not in its classical physical understanding, but by the nature of the observed response in the BRT process [1]. "In this case, we mean the absorption of the field energy at a certain frequency or in the frequency range" [5].

There are two types of biophysical mechanisms of the therapeutic action of BRT - energy (thermal) and informational (non-thermal) [8, 9].

With the energy mechanism, the biological effect is caused by the energy of the electromagnetic field, which is directly absorbed and utilized in a biological object. It is important to note that the magnitude of the response in this case is proportional to the field energy and exposure time. "The energetic type of impact begins with field energy values of the order of 10-1W / m₂, which is comparable to the level of energy metabolism of an animal or human organism "[1].

Informational action is characterized by the fact that the biological effect is caused not by the energy of the electromagnetic field, but by its informational significance for a given object. In this case, the response is carried out at the expense of the body's own energy resources, and the electromagnetic field serves as a carrier of biologically significant information. "Information action begins with a value that is the minimum threshold of sensitivity for most biological objects, which is 10-12 W / m. " [1].

The fundamental difference between the informational action and the energy one is that the energy action increases the internal energy of the system (organism), while the informational one affects the processes of regulation and control in the body.

"Energy interactions observed on of all levels biological organization - from an organism to molecules, while informational ones are manifested mainly at the level of individual tissues, organs, organ systems and the whole organism "[1].

To explain the therapeutic effects of BRT, supporters of the method use the terminology of chaos theory, in particular, the concept of "bifurcation" or "bifurcation point". Any value of the parameter at which the number and / or stability of stationary states and cycles changes is called a bifurcation point, and the system is said to have undergone a bifurcation. At the bifurcation point, the system loses its stability in the state and goes over to a new regime, which leads to the appearance of two new branches characterized by stability. So, from the position of "health-disease" at the point of bifurcation, the onset of the disease is considered as a loss of stability.

It is important to note that "near the bifurcation point, the system exhibits maximum sensitivity to small influences, including signals of a noisy nature" [1].

Thus, the mechanism of the therapeutic action of BRT may consist in the action at the point of bifurcation, which leads to the transition of the functional system of the body

a person from an unstable state, characterized as a pre-disease or illness, to a stable one, regarded as health.

"A similar mechanism is applicable for endogenous BRT, while in the case of using exogenous BRT using external electromagnetic fields and radiation, it is necessary to indicate other ways of realizing the therapeutic effect" [1]. These paths are ion cyclotron and magnetoacoustic resonances.

In recent years, more and more evidence has appeared in favor of the fact that the basis of BRT is the tuning of internal electromagnetic signals to activate the body's defense mechanisms to combat the pathology that has arisen.

Considering the healing mechanisms of acupuncture, homeopathic medicines, BRT, we focused on the insufficiently studied, but important side of the body's life - the energy-informational component.

Drawing attention to the energy-informational processes of the body and to the specificity of these methods of treatment, we adhered to the existence in the body of the "trinity" of homeostasis - "substance", "energy" and "information". This, in turn, means that ultimately the healing mechanisms of acupuncture, homeopathy, BRT come to the end with the normalization of the extracellular matrix disturbed by the pathological process, which occurs with the obligatory participation of not only "energy", "information", but also "substance".

During the development of integrative medicine, knowledge of the energyinformational component of various methods will undoubtedly contribute to the greater efficiency of therapeutic measures aimed at preserving human health.

Literature

1. Gotovsky M.Yu., Perov Yu.F., Chernetsova LV. Bioresonance therapy. -M .: IMEDIS, 2012.

2. Biophysics / Antonov V.F., Chernysh V.I., Pasechnik V.I. and others - M, 1996.

3. Vasilenko AM Acupuncture and reflexology: evolution of methodology and theory. - Taganrog. - 1998.

4. Gryzlova O.Yu., Subbotina TP, Khadartsev AA, Yashin AA, Yashin SA. experimental magnetobiology: bioresonance effects when exposed to electromagnetic fields. - M. - Tver - Tula: Triada Publishing House, 2007.

5. Derney K.H. Animal and human models applied to Electromagnetic Dosimetry: A Review of Analytical and Numerical Methods. TIIER. - 1980. - T.68, No. 1. - P.40–48.

6. Komisarenko AA The place of the homeopathic phenomenon in the medicinal therapy, its implementation and the possibility of optimizing the impact on the body. Homeopathic Yearbook. - M., 2010. - pp. 27–35.

7. Stopping V.V. Electromagnetic field and vital functions of the organism. Homeopathic medicine and acupuncture. Trial number. - P.4-10.

8. Plekhanov G.F. Three levels of biological action mechanisms low-frequency electromagnetic fields. Biological mechanisms and phenomena of low-frequency and static action. Electromagnetic fields to live systems. - Tomsk: Publishing house of Vol. University, 1984. - P.3–8.

9. Presman AC Electromagnetic signaling in wildlife (facts, hypotheses, ways of research). - M .: Soviet radio, 1974.

10. Resh G., Gutman V. Structure and systemic organization of homeopathic potencies. Biophys Bulletin. honey. - 1994. - No. 2. - P.3-10.

11. Skrypnyuk Z.D. Basic theoretical principles of Chinese medicine, bioresonance and information therapy // Mat. V Int. conf. "Theoretical and clinical aspects of the use of bioresonance and multiresonance therapy", part 2. - M., 1999. - C.306-311.

12. Smith S. Electromagnetic bioinformation and water // Bulletin Biofiz. Med. - 1994. - No. 1. - P.3-13.

13. Yusupov G.A. Ultra-low doses, homeopathy and energy information medicine. Homeopathic Yearbook. - M., 2010. - P.47–52.

14. Anagnostatos GS, Vithoulkas G., Garzonis P., Tavouxoglou C. A working hypothesis for homeopathic microdiluted remedies. Berlin J. Res. Homeopathy. - 1991. - Vol.1. -No. 3. - P.141.

15. Bellavite P., Signorini A. Homeopathia. Medicina del Terreno. Ed.F. Palombi Caracas: Edition Bibl.Univ.Centr.de Venezuela, 1984.

16. Berezin AA Ultra high dilution effect and isotopie self-organization Ultra high dilution. eds. PC Endler, J. Schulte Dordrecht: Kluwer Acad. Publ. 1994. P. 137.

17. Brugemann H. Bioresonanztherapie. Grundladen und Praxis der weiterenwickelten Therapie mit patienteneigenen Schwingungen nach Dr. Morell. Therapie der Zukunft. Ibid. - 1991. - Bd 40, H. 10. - S.674–677.

18. Dulta AC Homeopathy. A light isotopie ttreatment. New Delhi: B. Jain Publ.Co Ltd., 1991.

19. Gerber R Vibrational medicine: New choices for healing ourselves. Bear and Comp., Santofe-New Meksika, 1988.

20. Guerritore A. La natura vivente. Studium, 1987. - Vol.4-5. - P.597.

21. Guidotti GG Patologia generale. Milano: Casa Editrise Ambrosiana, 1990.

22. Henry PSH Encyclopedie dictionary of physics London: Pergamon Press. 1962. - Vol. 6. - P.842.

23. Jiao Xuan. Li Zhichao. A hypothesis on information system for meridian. Abstr.Acad. Conf. of the tenth anniversary of World Fed. of acupuncture-moxibustion societies, Beijing. 1997. - P.366. - N622.

24. Lu Lykan. The scientific conception on meridians Abstr. Acad. Conf. of the tenth anniversary of World Fed. Of acupuncture-moxibustion Societies, Beijing, 1997. - P.370–371. - N630.

25. Morell F. MORA-Therapie, Patienteneigene und Farblichtschwingungen Konzept und. Praxis. - Heidellerg: Karl F. Hang Verlag, 1987.

26. Moss F. Chaos under control. Nature. - 1994. - Vol. 370 .-- P.596.

27. Schift SJ, Jerger K., Duong DH, Chang T., Spano ML, D. Ho WL Controlling chaos in the brain. Nature. - 1994. - Vol.370. - P.615.

28. Smith CW Homeopathy, structure and coherence. Homeopathy in focus. Essen: VOM Verlag fur ganzheitsmedizin, 1990. - P.96.

29. Wille A. Bioresonaztherapie (biophysikalische informationtherapie) bei

stotternden Kindern. Forsch. Komplementarmed. - 1999. - V.6, Suppl.l. - P.50–52.

Author's address

Doctor of Medical Sciences, Prof., Academician of the Russian Academy of Medical Sciences Zilov V.G., Head of the Department of Non-drug Methods of Treatment and Clinical Physiology of M. THEM. Sechenov.

zilovvg@mma.ru

Zilov, V.G. On the energy-informational component of acupuncture, homeopathy and bioresonance therapy / V.G. Zilov // Traditional medicine. - 2013. - No. 3 (34). - S.54-61.

To favorites