

Study of the interaction of reflex-sensor modules with enzyme subsystems for diagnosis of the human body

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Abstract. *The method of using magnetic devices for diagnosis of reflex sensory subsystems of the human body makes it possible to develop and consider the basic scheme of the correction of their condition. Exploring of spatial interactions of thermo-chemical potentials of cells at diagnosis allows to take into account the main aspects of the impact of this phenomenon firstly on the field of thermo-chemical potential, and then using this information field – on the physiological system.*

Keywords

Diagnosis of reflex-sensor subsystems; magnetometric measurements of metabolism of cells; thermo-chemical potential of cell; biologically active points.

1 Introduction

Development of a new generation of more efficient appliances for the diagnosis and correction of physiological systems is impossible without determining the physical nature of media information field, which connects the physiological systems and organs with the surface of the skin and the environment [1].

Lack of accurate information about the mechanisms of effects on organs and systems by means of information field does not permit further development of methods of reflexology. Existing hypothesis, in particular, electromagnetic, which describes the nature of the information carrier, cannot explain why the conductivity in biologically active points correlates with the activity of chemical reactions of certain enzyme systems of the human body.

However, these devices do not take into account some aspects of the interaction of the information field and the body, so they don't allow to produce energy correction of physiological systems at various levels, which would allow not only to treat patients, but also to produce release of information-energy levels of metabolism of molecular systems at the level of enzyme complexes, which in turn would prevent the impending disease.

It is also important to understand the connection of parameters of the information field of the body with character of pathology. It is noteworthy approach, in which the occurrence of a disease takes place in three stages [1]. In the first stage essential physiological processes in the human body at information-energy level are blocked, which can occur up to 6 months or more. In the second stage energy channels are blocked, which causes disturbance of vital systems of the body at the cellular level. And finally, on the third stage the disease itself is manifested with its inherent symptoms.

2 Main Part

The current level of research in the field of molecular and cellular structures as well as of systems of the body at the level of organs and systems, allows to talk about genome effect on cell structure and their managing impact on the human body [1]. Study of the main features of the effect of enzyme systems on the condition of reflex-sensory subsystems (RSS) of organism may be an argument for the determination of the level of dynamics of enzyme systems. Evaluation of that level can be determined by thermo-chemical potential.

Determination of the main features of the spatial interactions of thermo-chemical potentials will allow to choose the required physical parameters and methods of their evaluation for the diagnosis of the condition of biologically active points (BAP) and the corresponding meridians, because this evaluation by conductivity alone has its drawbacks.

It is also necessary to develop and consider the basic schemes of algorithms of correction of the condition of physiological systems, that is acceptable impact on BAP, which take into account the main aspects of this impact first on the field of thermo-chemical potential, and then using this information field – on the physiological system.

To answer this question, experiments were conducted to research of fluctuations of magnetic and electric fields. Correlation of fluctuations of magnetic and electric fields is confirmed by SKVID-magnetometer (magnetometer based on superconducting quantum interference device). Thus for processing with the relevant programs the signal from the high-precision instrument that measures conductivity in the BAP zone, has been supplied on different channels, and the signal from SKVID, oriented on the same BAP [2].

Measurement results of values of electrical conductivity and magnetic field in RSS of the human body were used for the construction of fluctuation charts of relative values of magnetic field $B_{rel}=B_i/B_m$ and relative values of electric field $E_{rel}=2\cdot E_i/E_m$, where: $B_m = [\sum_i^{12} B_i]/12$; $E_m = [\sum_i^{12} E_i]/12$ – accordingly, medial values of magnetic and medial values of electric fields; $i = 1, 2, \dots, 12$ – numbers of conditional measurement points (Fig. 1).

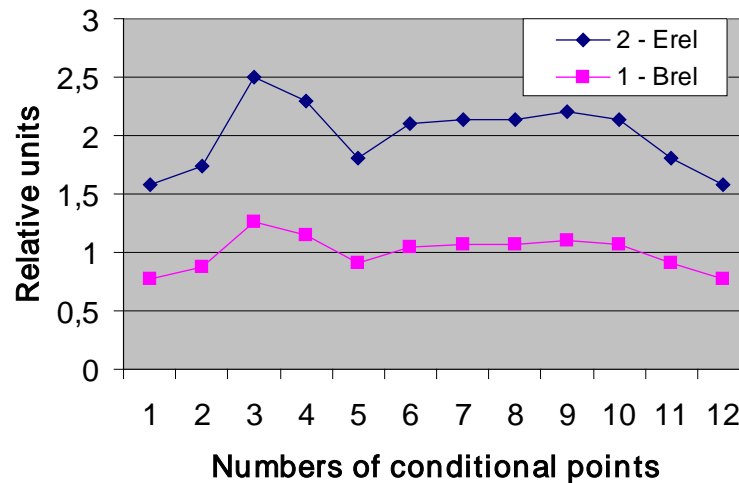


Fig.1. Curves of fluctuations of magnetic (1) and electric (2) fields in the reflex-sensor subsystems of the human body during the experiment

We can consider the process of obtaining the above data with the possible absence of interactions of thermo-chemical potentials. In this case, the magnetic field and its fluctuations will be generated solely by currents in the vicinity of the point M, and tangential circular currents (tangential with respect to the plane of the magnetic field sensor) [2]. Magnetic field does not cause movement of electrically neutral fluids (blood, lymph, etc.).

Leading in power among these will be cardiosignal. However cardiosignal primarily generates an electric field, which is distributed throughout the body. Given the varying electrical conductivity at different places and different directions, which also changes with time, the electric field is realized by current dipole, the direction of which does not always coincide with the direction of the electric vector of the heart, as volumetric nature of conductivity in the area of the point M, of course, is different than in the area of the heart.

Considering compilation with other current dipoles, the causes of which are listed above, you can expect a chaotic signal and often mutual offset, namely virtual absence of intrinsic magnetic field at the point M, if this point is not near the area of the heart, brain, tense muscles or other source of not chaotic currents. Actually, for these reasons for taking electrocardiosignal measuring of voltage, and not conductivity is used, and differential (from two points) signal is used.

Devices for the diagnosis of BAP, which are now widely used, analyze exclusively conductivity. Thus negative moments are dependence of current measurement on electrode pressure on the skin and the influence of local potentials on current measurement, due to this it is very difficult to measure the average conductivity in BAP. Wetting the skin with one or the other electrolyte improves little the dependence of the current measurement on contact conditions, as conductivity will depend on the area of wetting, drying speed, etc.

Therefore, in [2] a special attachment to selective electrode is proposed, that provides exclusively ionic conductivity in contact area with a fixed area of contact surface and electrolyte, placed in a closed volume. In such circumstances, ion conductivity will significantly dampen the dependence of current on the pressure in the contact area.

The lower curve 1 in Fig.1, which is interpreted as a change in the amplitude of the magnetic signal, is not really a clear reflection of the presence of a magnetic field in the measured points (BAP), located on the inside of the patient's palm. At points not associated with severe electrical activity in this area of the body (palm) an active magnetogram should not be present. This assertion is related to the fact that even accounting of the presence of ionic currents (the sum of which is equal to zero) cannot cause a magnetic component without the addition of an external field action.

As follows from the experiments, it can be assumed that the curve 1 reflects the presence of the field generated by the total effect of thermo-chemical potentials. The principle of such a field is close to the action of the magnetic field originating in the space of measurable transported objects [2]. The wave of the field of thermo-chemical potentials

distributed in space kind of carries the potential energy of unborn magnetic field. Considering the effect of spatial interaction of the field of thermo-chemical potentials, as well as using the phenomenon of spatial coherence caused by the influence of Earth's magnetic field, there is macroscopic component of curvature tensors from the action of thermo-chemical potentials from individual nano- and pico-objects (molecules and atoms), which is recorded only by ultra-sensitive sensor of SKVID - magnetometer as a magnetic component of the spatial field of thermo-chemical potentials.

The appearance of additional changes in the metric tensor at the point of measurement at the molecular level means the appearance of additional components in the energy of molecules that allows to state the possibility of dependence of temperature and conductivity in the measurement points on the values of the metric tensor due to the spatial influence of thermo-chemical potentials.

The main cause of the potential energy field emergence is the sum of thermo-chemical potentials from a large number of chemical reactions occurring at a considerable distance considering the management action of the metric tensor of curvature. Thus, the curve 1 in Figure contains a component of spatial field of thermo-chemical potentials, which in its effect is close to the manifestation of the magnetic field, but only by external characteristics (without analyzing the causes that led to the appearance of such a curve). Apparent effect of the presence of the magnetic field in the final phase of measurements is imposition of energy field characteristics over time.

The presence of the curve 1 of the spatial field of thermo-chemical potentials in the diagnosis and correction of energy state in the measured BAP is very important because with the signs of illness quantification of correlation of this curve with the curve 2 of electric field, which is determined by the software, will be different. Considering the patterns of location of meridians and BAP on them, the conclusion can be made that these are the endpoints that are responsible for enzymatic reactions in various human organs.

Spatial field of thermo-chemical potentials remembers the picture of such enzymatic and other reactions in human tissues and transmits them to the BAP, kind of signaling about a possible impending illness. Thus at this level we are see the imposition of energy characteristics in time. BAP is kind of a harbinger of future physiological and biochemical processes that may occur due to disturbance of energetic processes in the synthesis and event phenomena that software deployed at different stages of life of different physiological and biochemical systems of the human body [3, 4].

3 Conclusion

We were able to record change of position in space of the leading venues, using experiments with supersensitive devices (SKVID-magnetometer) in this paper. This confirms our conclusion about the correct interpretation of the lower curve 1 resulting from changes in the energy of the spatial field as a result of total change in thermo-chemical potentials.

It is established, that BAP are final points which are responsible for enzymatic reactions in various human organs, and the spatial field of thermo-chemical potentials remembers a picture of such enzymatic reactions in human tissues and transmits them to the BAP, signaling about possible approach of illness. Thus it is possible to observe imposition of energy characteristics in time, and BAP are kind of harbingers of the future physiological and biochemical processes.

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