Diagnosis and monitoring of the human energy-informational state and analysis of subtle energies, applying Gas Discharge Visualization technique, based on the Kirlian method.

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1. Introduction

Complimentary, energy, vibration medicine, various forms of healing are inevitably becoming one of our life issues. Serious debates on the efficiency of the given "non-chemical" methods of the influence on the organism are gradually coming down due to the statistically valid clinic data, conceptual approaches and practical applications of acupuncture, homeopathy and low-energy treatments. It would be expedient to put forward a term, integrating all the above-mentioned methods of treatment: "*Informational medicine*".

One of the principle factors of the Informational medicine promotion is the development of simple holistic methods of the human state examination, cheap and easy in application, as well as the methods of monitoring of the individual reaction on the informational influences.

The effect of the objects glow, including biological objects under high intensity field has been known for more than 200 years. This effect was discovered in 1777 by the German physician Lihtenberg and was used in the XIX century [1,2] and then it was re-discovered by the Russian scientists the Kirlian spouses. Due to their profound research they became well-known world wide. There hundreds articles, books dedicated to the Kirlian photography. Thousands of researchers evaluated the beauty and attractiveness of "Live galaxies of glow" during their scientific work. However, with all the perspectives of the obtained results and developed approaches [3,4] the Kirlian photography was left to the enthusiasts. Why?

First of all, it happened due to the insufficient stability and reproduction of the results, lack of reliable criterion, potent tools and, what is not the least, due to the clumsy, expensive way of obtaining the photographs.

Last years, we were working on these problems, launching the method, which combines all the possibilities of contemporary technologies and extended information, revealed by the "electric galaxies of life".

2. Methods

The principle of the experimental device construction is demonstrated on the figure 1. The object analyzed (a finger, a plant leaf and etc.) is positioned on the surface of the optical glass 3.5 mm thick. On the back side of the glass the electroconductive micro-grid is plotted by the method of vacuum photogalvanoplastics. The impulses of the generator voltage are applied to the grid. The glow turning up around the object is fixed by the CCD camera and the picture goes to a computer for the processing and analysis. Purposeful investigations allowed to find the parameters, optimal from the point of obtaining the information on the biological object state with the minimum of invasivity. These findings are described in more than 50 research works by Dr. Korotkov in the Russian scientific literature, 12 patents, 4 books in Russian, English, Italian [5]. The technical parameters of the manufactured in Russia "GDV-Camera" are the following:

- ♦ Impulse duration – 10.0 mks;
- ♦ Repetition frequency – 11.0 – 3.0 kHz;
- ♦ Voltage amplitude – 1000.0 – 4000.0 V;
- ♦ Maximum impulse power consumption ~ 80 Watt;
- ♦ Schematic impulse current limitation – on the level of 1mA;
- ♦ Parameters stability not less than 0.1%;
- ♦ Computer control of all the parameters;
- ♦ CCD matrix resolution – 800 x 600 .

In general, the principle of obtaining the information, using the developed approach, can be represented as demonstrated on the figure 2. Electric impulse stimulates the response of the subject in form of electron and photon emission. Simultaneously, at the expense of superficial and volume heterogeneity of the object, space-time modulation of the applied electromagnetic field (EMF) takes place. Weak emission and photon radiation of the object increases at the expense of the gas discharge, generating in EMF. The glow of this discharge is transformed by the optical and CCD system into a computer file. On the basis of the calculated parameters and diagnostic hypothesis a certain conclusion or diagnosis is made. The picture, formed after processing and transformations, reveals as a two-dimensional amplitude-modulated fractal image. To study this image the methods of fractal, matrix and probability analysis, realised in form of the original program complex on the basis of Windows are used (fig.3). The technique is named as "Biological Emission and Optical Radiation Stimulated by Electromagnetic Field Amplified by Gaseous Discharge with Visualisation by Computer Processing". In short **BEO GDV Technique** and images after processing are named as **BEO-grams or GDV-grams.**

To analyse the human psycho-physiological condition two main analytical approaches are applied: parametric and sector. The parametric approach is based on the calculation of the BEO-grams parameters (today the GDV Software calculates more than 30 parameters), factor and correlation analysis on the basis of GDV parameters and data of the other measurements (psychological, physiological, bioelectrographic). The following main groups of parameters are considered: geometrical, brightness, density, fractal, probability, entropy.

The sector diagnosis is based on the diagnostic table, connecting the glow characteristics of separate zones of fingers with the functional state of the body zones (fig.4). For the first time the idea of such a connection was proposed by P.Mandel [3] and then it was developed and modified further. The diagnostic table is based on the concepts of traditional Chinese medicine, micro-acupuncture systems and empirical experience. The analysis suggests using the notion on Chakras and Ayurvedic medicine. Basing on the BEO-grams from 10 fingers and the diagnostic table in the GDV programs the model of the field distribution round the human body is built (fig.5). Independent clinic observations in different countries revealed the diagnostic validity of

the GDV-technique and, in particular, the model of the field distribution – Aura. Special technique have been developed for the study of GDV characteristics of water, biological liquids and different subjects.

3. Results of the experiments.

After three years of development GDV technique demonstrated its high sensitivity to human energy variations and practical importance in different fields of the study. Researchers and practitioners from different countries, working with people, studying the subtle energies and altered states of consciousness are referring to the GDV-technique more and more often [6,7,8]. Let us outline some of the results obtained.

The GDV method stability.

The principle criteria for the experimental method – stability and sensitivity. To standardize and calibrate the GDV-Camera a special approach and software has been created. The set includes a calibrated metal test-object with the titanium bottom, stable to corrosion. The test object is a cylinder $\varnothing$10mm 25mm high, the foot and the bottom line of which are processed with high precision. The cylinder is connected with the grounding joint of the device and is positioned into the center of the optical glass, whose surface is thoroughly cleaned. The light-impermeable cover is set and after 15 minutes of warm up the exposure of BEO-gram is made, after that, the images are processed in the GDV Processor program, the parameters are calculated automatically and the statistic analysis is carried out.

Analyzing 320 BEO-grams, taken within 8 hours with the interval of 15 minutes 10 pictures successively, it was demonstrated, that the distribution of the parameters (area, fractality and etc.) of the whole group corresponds to the Gauss curve with the relation of standard deviation (SD) to the average (A): SD/A= 4,5%. For each group of 10 successive measurements SD/A = 1,0 ÷ 2,5%. In other days, using the other samples of the GDV Camera devices SD/A = 3.6%; 5.2%; 2.8%. The analysis demonstrated, that the selection of 10 measurements is statistically representative, therefore in most experiments requiring statistic analysis 10 measurements are used. When analyzing the parameters of BEO-grams after 10 measurements taken from a point finger of 20 both female and male human subjects 25-47 years old we obtained SD/A = 1,5% – 9,8%. Therefore, the change of parameters exceeding 10 – 15% during experiments we consider to be the most valid.

The examination of the bronchial patients of various course of disease.

The goal of the present work was to study the clinic informativity of the GDV-technique. Research started in 1998 at the Clinical Therapy department of the St. Petersburg State Medical University n.a. I.P.Pavlov under the supervision of Prof. G.Fedoseev and Prof. R.Alexandrova. By the beginning of 2000 there have been examined 37 virtually healthy people and 362 patients on a clinic treatment: 295 bronchial asthma **(BA)** patients, 20 pneumonia patients, 27 hypertonic and afflicted with the ischemik heart disease patients, 20 patients afflicted with chronicle pathology of the hepato-biliar system (hepatitis, holicistitis). The estimation of the GDV emission parameters consisted of 4 main stages:
1. Calculation of the BEO-grams parameters;
2. Estimation of the integral (right and left hand fingers) and normalized (according to a finger thickness) area of a BEO-gram;
3. Sector analysis of the deviated zones, which are related to the meridian system of Traditional Chinese Medicine;

4. Analysis of the detected changes by means of the GDV Software.

Among the virtually healthy people a BEO-gram is characterized by the good reproducibility. The afflicted with the Chinese pathological syndromes of "emptiness" and "fullness" differ in the BEO-gram parameters. Among the pneumonia and bronchial asthma patients (BA) the changes in the lower sector of the 5th finger BEO-gram – channel projection of the respiratory system - were registered. Among the patients afflicted with the heart disease the outburst of glow in the upper sector of the 5th finger BEO-gram – projection of the coronary vessels – was observed. This confirms the possibility of a pathology diagnosis basing on a BEO-gram, according to the channel projection of the functional systems. Among the BA patients the emission and form coefficients of the BEO-grams were considerably lower than those among the healthy. The increase in the severity of BA was followed by the decrease of these parameters and correlated with the dysfunction of the lung perfusion according to the scintigraphic data, prothrombin indices and thrombin time. These data give evidence for the considerable role of the micro-circulation dysfunction in the pathogenesis of the BEO-gram changes. With the dysfunction of perfusion of one of the lungs the decrease in the parameters of the 5th finger BEO-gram in the corresponding area was registered. Among the patients afflicted with chronicle pathology of the hepato-biliar system (hepatitis, holicistitis) the correlation of the BEO-gram parameters dynamics (emission and form coefficients) with biochemical markers of the liver functional state during the monotherapy with the galsten homeopathic preparation was found.

The sufficient part of the given work consisted in the study of the influence of various methods on the character of the bioenergy-informational interchange. The positive influence of a course of acupuncture among the BA patients was considerably stronger than after the beroteck inhalation, salbutamol taking and salbutamol and salmeterol inhalations. Nevertheless, according to the results of the estimation of the outer breathing function, the broncholitic effect of the medicines exceeded the acupuncture broncholitic effect. This data can be the basis for the complex application of acupuncture and broncholitic medicines.

There were registered different time periods of the energy-informational and clinic-pharmacological effects of broncholitic and anti-tonsillitis medicines among the patients with the combined pathology: BA and heart disease. The most positive energy-informational effects of the acupuncture treatment were observed among the patients with the syndromes of "emptiness" and a small area of the BEO-gram. Fig.5 demonstrates example of patient's Aura Beo-grams with calculated parameters before and after 6-days course of acupuncture.

The comparative analysis of the BEO-gram changes in vivo and in vitro (blood serum in the solutions 1:1, 1:10 and 1:100) among the patients afflicted with nettle-rash, ulcer, chronicle gastritis and pneumonia revealed a high correlation of changes of the BEO-gram area in vivo and in vitro.

The data obtained confirm that the BEO-gram can be used as the express-method for the syndrome estimation of the patients and for the control of the energy-informational influences of the preparations and methods of treatment. We have come to the conclusion, that in the phase of the BA acute condition the principle role in the treatment belongs to the medicamentous therapy. With the decrease of the acute condition and BA remission, when the syndrome of the energy insufficiency of the organism functional systems reveals, the role of non-aggressive, slight influences – acupuncture and homeopathy, medical effect of which is followed by the BEO-grams harmonization, according to the synergetic laws of the natural sanogenisis, becomes more important. Thus, the holistic estimation of the energy homeokinesis by means of the GDV-grams offers a new look at the patient state, deeper understanding of the mechanisms of the medicamentous and non-medicametous methods of treatment and optimized therapeutic courses in the different phases of the disease, i.e. improve the patients life quality.

The development of the diagnostic methods for the oncological patients.

Basing on the Kirlian photography a series of approaches to the oncological patients diagnosis have been developed [9]. Though those methods stayed on the level of the experiments, they formed the basis for the investigations with the GDV-technique application. The analysis of BEO-grams of more than 600 patients with a different course of disease allowed to find a series of specific characteristics of BEO-grams of oncological patients with the localization of the infected systems. After pilot studies by Dr. M. Shadury it was conducted randomized twice-blind test with the GDV technique under supervision of specialists of State Oncology Scientific Centre of Georgia (Tbilisi). In 12 days were tested 275 patients, from them:

157 patients with confirmed oncology diagnose;

118 practically healthy people.

Testing process took 2-5 minutes. After the testing of all the people conclusion of GDV analysis was compared with real situation. The results were as follows:

The correctness of the GDV diagnoses for oncology patients was not less than 85% (up to 95% for some nosological cases). It was noted some cases of "false-positive diagnosis" for presumably healthy people.

Another approach to early cancer diagnosis have been developed on the basis of measuring GDV parameters of blood [5]. Comparison of concentration curves of GDV parameters of blood diluted with neutral solution from cancer and healthy patients demonstrated statistically significant reproducible difference between curves. This creates basis for the development of simple and fast technique of non-specific cancer markers in blood by measuring the GDV parameters.

Results obtained are only from the pilot study, the first steps, but they demonstrate that GDV Technique may be developed as very sensitive method of screening diagnosis of cancer. Research program is in progress.

Estimation of readiness for the competitive activity among elite athletes.

The definition of skilled athletes' readiness for competitive activity is one of the actual problems of sport psychophysiology and psychology. In respect that the athletes' psycho-physical readiness for competition is defined by two basic factors, namely the specific character of their mental state, as well as the level of development and ability for the mobilisation of organism's psycho-physiological reserves [10], there have been elaborated and approved the technology of complex psychological and psychoenergy evaluation for the purpose of prognosis of the success of competitive activity. The study has been conducted in the State R&D Institute of Sport under supervision of Prof. P. Bundzen.

METHODS OF THE STUDY

1. Subjective and objective assessment of psycho-emotional state and prognosis of the success of competitive activity [11].
2. Subjective assessment of psycho-energy state (Profile of Mood States - POMS).
3. Testing of athletes' physical work-capacity ($VO_{2\ max}$; oxygen pulse; time of PWC keeping).
4. BEO GDV Technique.
5. Evaluation of acupoints' functional state by registration of ς-potential [12].
6. Expert evaluation of personified conclusions by the coaches.
7. Statistical processing of the experimental data by means of the correlative and factor analysis.

SUBJECTS OF THE STUDY

102 skilled athletes specialised in the following sports: swimming, Nordic combination, skiing and basketball were investigated. The subjects were between the ages of 17 – 22, 68 males and 34 females.

RESULTS OF THE STUDY

The use of battery of tests including 23 parameters for determination the psycho-emotional state and the prognosis of the success of competitive activity enabled us to give the primary rating of athletes' psychophysical readiness (PPR). All investigated athletes were divided to three groups:

1st group – athletes with high PPR;

2nd group – athletes with medium PPR;

3rd group – athletes with low PPR.

The comparison of athletes' readiness rating being structured with their subjective assessment by POMS method revealed a statistically significant difference of the 1st and the 3rd groups of athletes by PPR assessment.

As a result of analysis of BEO-grams of fingers it was revealed statistically reliable differences of the basic parameters of BEO-grams among the 1st and the 3rd groups of athletes. This difference was demonstrated for the following parameters of BEO-grams:

1. The area of BEO-gram of every finger of the left and right hand.
2. The areas of different sectors of BEO-grams of the ring (4th) finger of both hands.
3. Fractal parameters of BEO-grams.
4. Types of BEO-grams after K. Korotkov [5]: K-, R-, L-, N-, S- in accordance with the level of their destructurisation, or increase of fractality.

It was demonstrated that at rest the BEO-grams of the athletes of the 3rd group with low PPR is typical for the healthy subjects of the same age and mainly belong to R-type. For the athletes with high PPR (1st group) the BEO-gram at rest is much less structured belonging mainly to L-type with significant percentage of N-type. After physical loading for all the athletes it was found transition to the "worse" type of BEO-gram: L- for the 3rd group and N- for the 1st group with some percentage of N- and S- types respectively. For athletes with medium PPR it was combination of R- and L-types at rest with dominance of L-N types after physical loading.

These results confirm conclusions of our long-term studies of BEO-grams of top-level athletes: their dominant type of BEO-grams at rest is quite different from the types of BEO-grams of relatively healthy people and "worsens" after training and mostly in the process of sport competition. In correlation with other data [11] this may be interpreted as a preliminary evidence for transition of top-level athletes to the state of Altered State of Consciousness [12] during competition. Of course, this hypothesis needs further development. It is also significant that the groups of athletes differing by PPR have essential difference in GDV patterns. Together with it the athletes having high and low PPR are also notable for various reactivity of acupoints (AP) of Yin meridians (TR, IG). For these meridians the reactivity of AP is essentially higher in the athletes with low PPR.

The correlation and factor analysis of the results of the investigation carried out by the totality of studied indices (N = 28 and N = 44) allowed to mark out four basic factors whose dispersion makes up correspondingly 72% and 61%. The dominant weight for the first factor occupies the complex parameter of PPR rating (0.87). In this case the statistically reliable components of the first factor are: all the parameters of POMS including the indices of activity – anxiety; the GDV parameters of BEO-grams of eight fingers of both hands; the parameters of AP reactivity bilateral asymmetry of the fourth fingers and the parameter of maximal PWC holding in minutes. Thus, it is rightful to interpret functionally the given factor as a factor of athletes' psycho-physical activity.

The second factor reliably (p < 0.01) marks out the parameters of the asymmetry of AP functional state, the parameter of AP reactivity TR and the area of BEO-grams of all fingers of both hands. In accordance with the combination of the parameters the given factor can be interpreted as a factor reflecting some peculiarities of organism's systemic bioenergy homeostasis.

The third and fourth factors reflect the correlation of POMS parameters with the AP functional state and with the capacity of central nervous system, which is determined according to the velocity and accuracy of psychomotor reactions.

As a whole, the results of statistical analysis testify to the fact that the complex of the parameters selected for PPR evaluation appear to be complement; it confirms the adequacy of using the methods of PPR with emphasis on GDV parameters and ς - potential in sport psychodiagnostics. At the same time it is evident that the GDV parameters reflect mainly psycho-emotional state of the athlete, but they are not adequate for the evaluation of the physical state of a sportsman.

The study of the influence of special functional efforts (mental modelling of competitive situation and dosage physical exercises) on the BEO-grams patterns revealed their directed changes during the exercise. This creates hope of developing the technique of obtaining information about the mobilisation of psychoenergy potential by the athlete in purposeful situations. The significance of working out the technology of an objective assessment of the given parameter while diagnosing PPR and forecasting the reliability of skilled athletes' activity is beyond any doubts.

Frontier Science Study with GDV.

The creation of a new paradigm in science starts from the detection of experimental factors, unexplainable in the framework of the acting paradigm. Nowadays these factors are the experiments, demonstrating the influence of the consciousness on its own state, psycho-physiological parameters of other people, processes of the material world. Though these experiments are hard to run, they have to submit the laws of the scientific practice: reproduction, independence from a researcher, statistical validity [13]. High sensitivity of the GDV technique provided the growing popularity of the method among the researchers in the field of Frontier Science. Let us give some examples.

When registering the influence of meditation, concentration or some other influences on the human state BEO-grams from the 4th left hand finger of a patient are taken successively with the interval of 15 seconds. The curve of time relation of the GDV parameters are built. It was mentioned in the part 3.1, that in the normal state the variation of the parameters don't exceed 10-15% while during meditation the BEO-gram area changes in 2-3 times (fig.6) together with distortion of BEO-gram type. Quite often we register anomalous types of emission for people in deep trans-like state: separated dots, twin rings, super-long branches [14]. The trained tested human subjects are able to vary GDV signal increasing and decreasing it (fig.7). GDV-technology allows to demonstrate the statistically meaningful influence of the energy exercises on the human state. The results of the experiments performed in long-term study in London City University [8] are represented in the table 1. The similar results were demonstrated in the works by the scientists from Slovenia [15]. Such results are of great importance from the point of inculcation of the concepts of Mind/Body Connections to the Collective Consciousness. They also demonstrate the perspectives of the GDV-technique application for the evaluation and development of skills and capabilities.

Table 1. Case by case analysis of the GDV finger images compared before and after the intervention subjected to a paired-sample t-test after long period of study [8].

	% Cases with statistically* significant increase in GDV finger images	% Cases with no change in GDV finger images	% Cases with statistically* significant decrease in GDV finger images
Meditation	66%	17%	17%
T'ai Chi	60%	30%	10%
Unwinding	57%	43%	0%
Progressive Muscle Relaxation	56%	44%	0%
Acupuncture	56%	33%	11%
Stress Workshop	50%	30%	20%
T'ai Chi (HIV)	40%	60%	0%
Tibetan Healing	33%	56%	11%
Kundalini Yoga	20%	53%	27%
Control Group	25%	62.5%	12.5%

*probability of the change occurring by chance is less than 5/100.

The alteration of Consciousness under the influence of meditation or energy training is available to any person, while a long-term influence on the material processes is the destiny of the solitary geniuses. We have constructed a sensor [5] which excites the multiphase discharge in the system pin–dielectric. With the stabilised parameters of the experimental device a number of the discharge impulses per a time unit ranges within 3-4%. The sensor was placed into the grounded metal box, registration of impulses frequency were carried out automatically 16 hours a day in the closed room. The task of the person-inductor was to establish a mental contact with the sensor and to change its parameters remotely by means of mental concentration. Long-term statistical blind experiments demonstrated that after training some people can deliberately change the readings of a sensor remotely for 50-300%. Similar system was developed under the conduct of W. Tiller [16].

Numerous results, demonstrating the BEO-grams to be a complex indicator of the human state, provoked the idea of measuring GDV parameters after death. The details of the experiment are described in [17]. Most important it was found that time behaviour of the GDV parameters after death depends on a type of death. Figure 7 demonstrates the typical curves for the different cases of unnatural death. Social and philosophical meanings of these results are the topic for a separate work.

4. Discussion.

What is the explanation for the high informativity of the GDV-technique? What mechanisms allow to obtain information? What are its advantages over such well–known methods of bioelectrography as ECG, EEG, and SGR? What perspectives does the GDV-technique open for the doctors, practical workers and researchers? The answers to these questions will be found in the new book by Dr. Korotkov, which will be published by the end of 2000. Its main ideas can be formulated as following.

To explain the mechanisms of the information extraction we consider the approaches listed below:

Physical approach.

The physical approach is mostly applied to analyse the processes of the Kirlian photography [5,9,18]. Using a metal pin or a compositional dielectric as objects, we can describe in detail the interaction of an object, EMF and gas discharge.

Biophysical approach.

The skin as a complex multi-layer object, characterized by the properties of a capacitor with the distributed conductive channels is considered [19]. The moisture secretion at the expense of perspiration and molecular gas layer over the skin (this gas secretion is individual, depends on the organism condition, nationality, sex, responsible for the human scent) is taken into account as well.

Psycho-physiological approach.

The connection of the blood supply, temperature and local electroconductivity of fingers with the parameters of psychophysical functioning at the expense of autonomic nervous system and mind-body correlation on the level of autonomic and central nervous system, endocrine, immune systems [20]. The relation right-left is considered to be of special importance.

Entropy-informational approach.

A biological organism is evaluated as an open dissipative system, interchanging energy and information with the environment. Information is considered as one of the main terms of the biological organism existence as well as energy. Information is an ideal notion. To be perceived by the material biological subject, it should be localized, i.e. connected with the material process or the object. Information carries no energy. According to the meaning of information for the subject it initiates inner energy processes of the organism itself.

This process is completely similar to the radio transfer, when information from the source transformed into radio waves or electric impulses, goes to the receiver and, if it is set for the corresponding frequency, it starts the inner processes, realized in sound or an image.

For the biological objects the spectrum of the emitted information and the character of its transformation is considerably wider: there can be not only electromagnetic and sound oscillations within the entire spectrum, but also material objects. For example, the scent of exotic perfume (a group of organic material molecules) has no effect on one person, but it will evoke a flush of memories from the faraway childhood in another one.

Thus, to describe the informational interrelation of biological objects (BO) all the methods of the classical theory of information with the derivation of quantitative criteria can be applied. Information may be expressed via entropies of communicating processes, and entropy may be calculated from the parameters of a system.

At the same time it is necessary to stress out, that for BO and especially the human being the processing of the outer and inner information is the basis for life, its fundamental component. A newly born has genetic predisposition to become a human. But without certain information this predisposition will stay unrealized. Let us remember the tragic stories of children, brought up by the monkeys, ships, wolves. They didn't grow up into a smart Mauglis – Tarzans, they turned into the wild animals. All the attempts to bring them back to the human community failed. That's why we are actively developing the concept of the human energy-informational structure and biological field.

Taking into account the synergetic concepts, the probability theory and information theory the BEO-grams can be considered as the presentation of the organism entropy exchange with the environment and other organisms (remote inter-personal influence).

The approach from the point of Chinese Medicine and Ayurvedic Medicine.

The analysis on the basis of Eastern Medicine is very close to Dr. Motogama's approaches when explaining the method of measurements of the fingers and toes acupuncture points reaction on short electric impulses [21]. The concept of the meridian system, acu-points and active centers (chakras), energy (entropy) circulation along the meridians of the body and

entropy exchange with the environment. The application of the well-known concepts on the connection of the circulating energy with the health state and psychological parameters provides opportunity for the diagnosis.

Field approach.

The conception of the biological field, proposed by A. Gurvich [22], has been intensively developed in the works by Sheldrike [23] and grew into the concepts of field holographic structures [24]. It seems remarkable that with the everyday application of the biological fields during the measurements of the organism electric activity, the contemporary medicine is very cautious to this ideas. At the same time the collected in various countries experimental data on informational influence of BO on the processes of the material world and other BO allows developing the scientifically substantiated conceptions of the mechanisms of these processes on the level of the fields and quantum processes interaction [13,16]. We can also speak about the hierarchy of the levels of the biological object functioning organization, when the field control is the most ancient. It appeared among the earliest representatives of the organic life on the Earth and saved its subtle control function throughout the development of the complex systems. Depending on the solving by the organism tasks the control is carried out by the various levels or their combinations.

Metaphysical approach.

In the contrast to the Newtonian-Cartesian model, the human being is accepted as a single triple manifestation. Physical Matter + Energy ↔ Information ↔ Spirit. In other terms: Body ↔(Consciousness, Mind, Emotions, Soul)↔ Spirit. In this model all three components are inseparable, they depend on each other and influence each other. It's impossible to study the physical processes of the body without considering mental processes. The assumption on the human being as a physical-chemical mechanism, dominating from the XVII century resulted in the low effectiveness of contemporary medicine, tremendous expenses for the treatment of complex chronicle diseases and appearance of infections peculiar only for the developed Western countries and the USA, first.

In the developing conception [17] we distinguish the levels of the personality → groups (families)→ community (society)→ Humankind. On each of these levels one can speak of the triple manifestation, individual and public Consciousness, Soul, Spirit, in other words: Family, Nation and Humankind Informational Field. Observation of the individual processes taking into account the public relations and influences on the family level, professional group, community allow extended conclusions, crystallising on the individual psychoemotional level. This approach is especially valid when considering the states of children, as their energy-information field is utterly determined by the environmental influences.

Summary.

All the above mentioned approaches are   applied when analyzing the BEO-grams. Some of the approaches determine the principles of the information extraction on the BO state from the BEO-grams and selection of the parameters for the experimental devices, another are realized in the GDV-Software, the rest influence the Diagnostic Hypotheses and the principles of the data interpretation.

For example, the extended practical work with the application of GDV Camera in various countries demonstrated, that this technique allows not only holistic diagnosis of the energy-informational state but also observation of the mental processes in time. One can analyze subtle complex reactions of a patient to the outer and inner informational influences. It is resulting in a constantly increasing spectrum of the current GDV tools and programs. In other words, this is a technique visually and beautifully demonstrating Energy-informational Structure of our Biological Life and the influence of Consciousness and Subtle Energies on the Material World.

5. Conclusion.

The GDV-technique is intensively developing. There are hundreds of users world-wide. The GDV-Camera device is certified in Russia as a medicine tool and can be used in hospitals and medicine centers without limitations. The certification is taking place in Europe as well. The technique is constantly improving, new programs are being created. At the same time as a matter of fact all the methods have their strong and weak sides, therefore many questions demand for more investigations. However, it is evident, that the production of this simple in use and easy in application and interpretation technique allows to extend the frames of our understanding and fasten the application concepts and methods of Energy-informational paradigm in everyday practical work.

References

1. R. Nardkevitch-Jodko, *Compte Rendu d'une conference sur les experiences d'electriciti par report a la physiologie tenne a Florece le 1893 par le chev Fraduction.* (Nice. 1894).
2. M. Pogorelski, *Electrohpotosfens and Energography as a proof of existence of the human energy field.* (Saint-Petersburg, 1893).
3. P. Mandel , *Energy Emission Analysis; New Application of Kirlian Photography for Holistic Medicine.* (Synthesis Publishing Co., 1986).
4. Newton Milhomens, *Fotos Kirlian – Como Interpretar.* (Ibrasa. Sao Paulo. 1997).
5. K. Korotkov, *Aura and Consciousness: New Stage of Scientific Understanding.* (St. Petersburg division of Russian Ministry of Culture, State Publishing Unit "Kultura",1999).
6. M.I. Shaduri & G.K. Chichinadze, Application of bioenergography in Medicine. *Georgian Engineering News* 2, (1999), pp.109-112.
7. C.J. Howell, The therapeutic effect of tai chi in the healing process of HIV. *International J of Alternative and Complementary Medicine* Nov (1999), pp. 16-20.
8. P. Dobson & E. Tchernychko, *Investigations into Stress and it's Management using the Gas Discharge Visualisation Technique.* London City University Business School , research report, (1999).
9. L.W. Konikiewicz & L.C.Griff, *Bioelectrography – A new method for detecting cancer and body physiology.* (Harrisburg: Leonard Associates Press, 1982). G.Rein, Corona discharge photography of human breast tumour biopsies. *Acupuncture & Electro-therapeutics Research, International Journal* 10, (1985), pp.305-308.
10. A. Puny, *Psychological preparation for competition in sport.* (Moscow, Sport, 1969).
11. L.-E. Unestahl, *Integrated Mental Training.* (Veje Inter. ÖREBRO, 1996) .
12. P. Bundzen, V. Balandin, V. Zagrantsev, L.-E. Unestahl, *Psychological training of the Olympic reserve: Advanced Practices.* In: "Youth–Science–Olympism". Moscow, (1998), pp. 66-68.
13. B. Rubik, *Life at the Edge of Science.* (The Institute for Frontier Science, 1996).
14. S. Kolmakow, O. Hänninen, K. Korotkov & P. Bundzen. *Gas Discharge visualization technique and Spectrophotometry in detection of field effects.* Abstracts of Int. Symp. on Mechanisms of Adaptive Behaviour. St. Petersburg. P. 78. (1999).
15. I. Kononenko, T. Zrimec, B. Prihavec, M. Bevk & S. Stanojević. *Machine learning and GDV images: Diagnosis and therapy verification.* University of Ljubljana Preprint, (1999).
16. W. Tiller. *Science and human transformation.* (Pavior Publishing. 1997).
17. K. Korotkov. *Light After Life.* (Backbone Publishing Company. NY. 1998).
18. D.G. Boyers & W.A. Tiller, Corona Discharge Photography. *J. of Appl Phys*, 44, (1973), pp. 3102-3112. M. Skarja, M. Berden, & I. Jerman, Influence of ionic composition of water on the corona discharge around water drops. *J. of Appl Phys*, 84, (1998) pp. 2436-2450.

19. W. Tiller. On the evolution of Electrodermal Diagnostic Instruments. *J of Advancement in Medicine*. 1,1, (1988), pp. 41-72.

20. E. Rossi, *The Psychobiology of Mind-Body Healing.* (W.W.Norton & Company, NY, London, 1993).

21. H. Motoyama, *Comparisons of Diagnostic Methods in Western & Eastern Medicine.* (Human Science Press, Tokyo, 1999).

22. A. Gurwitsch Ueber den Begriff des embrionalen Feldes. *Archiv für Entwicklungsmechanik* 51:383-415 (1922).

23. R. Sheldrake *A New Science of Life.* (London: Blond and Briggs.1981)

24. K. Pribram. *Non-Locality and Localisation: A Review of the Place of the Holographic Hypothesis of Brain Function in Perception and Memory.* (Preprint for the Tenth ICUS.1981).
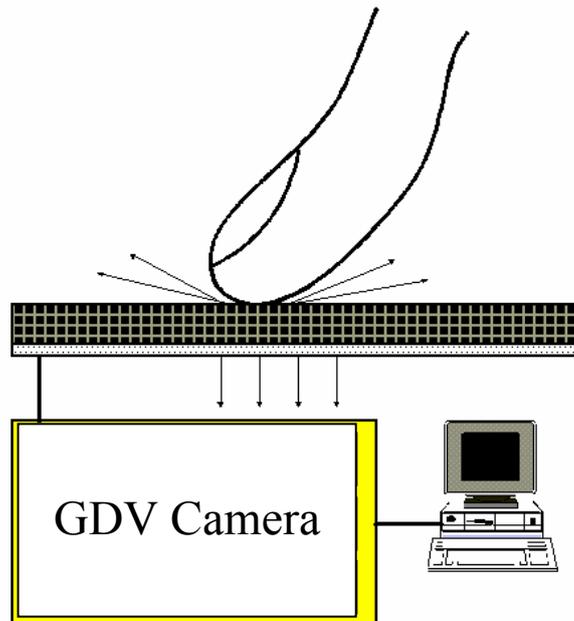
Figures

Fig.1. The principle of the experimental device construction.
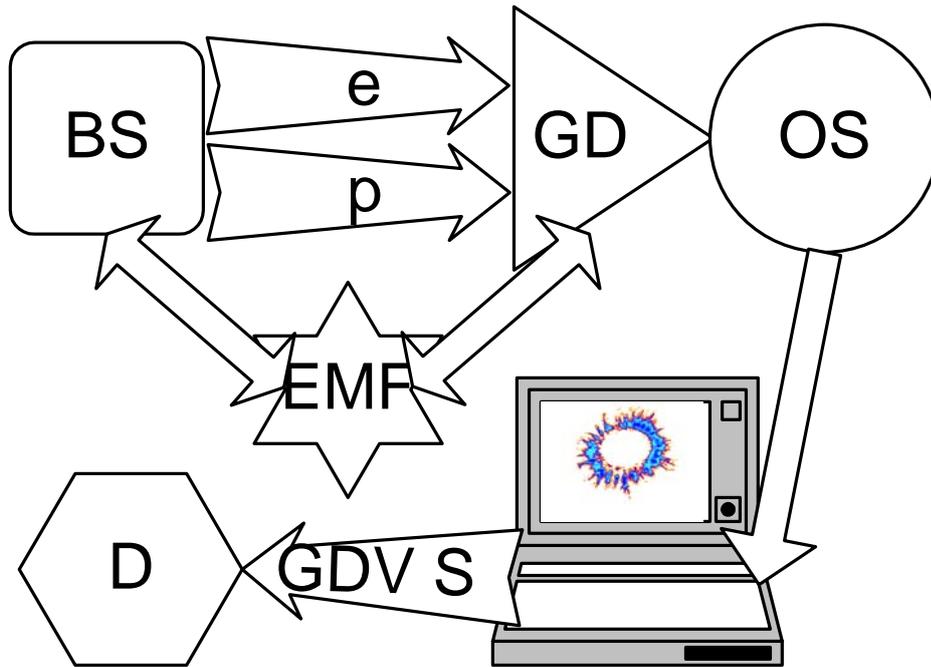
Fig.2. The principle of GDV Information transformation.
BS – Biological Subject; EMF – electromagnetic field; e – electron; p – photon;
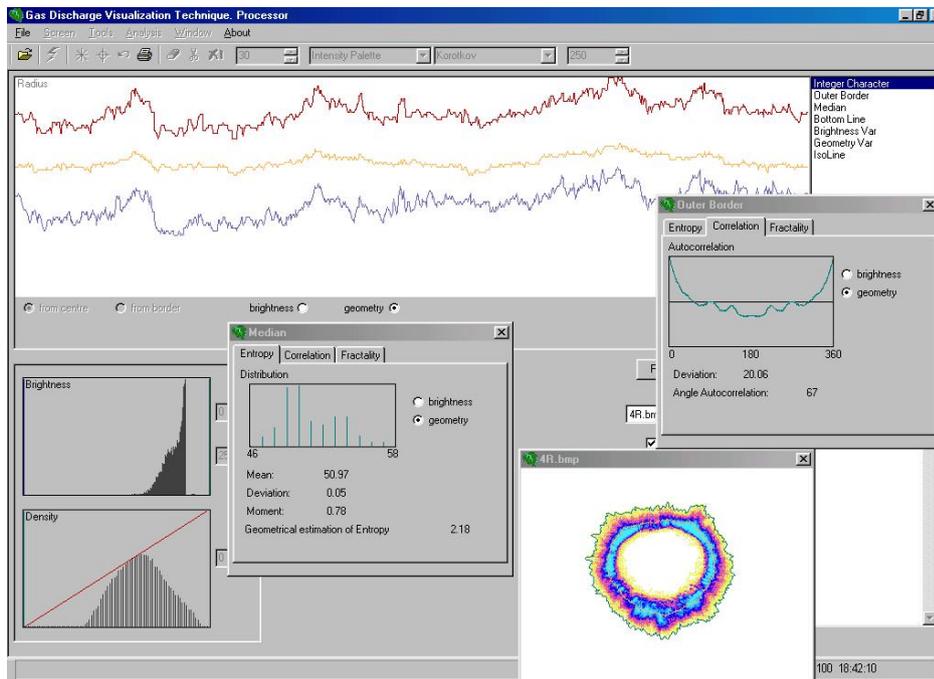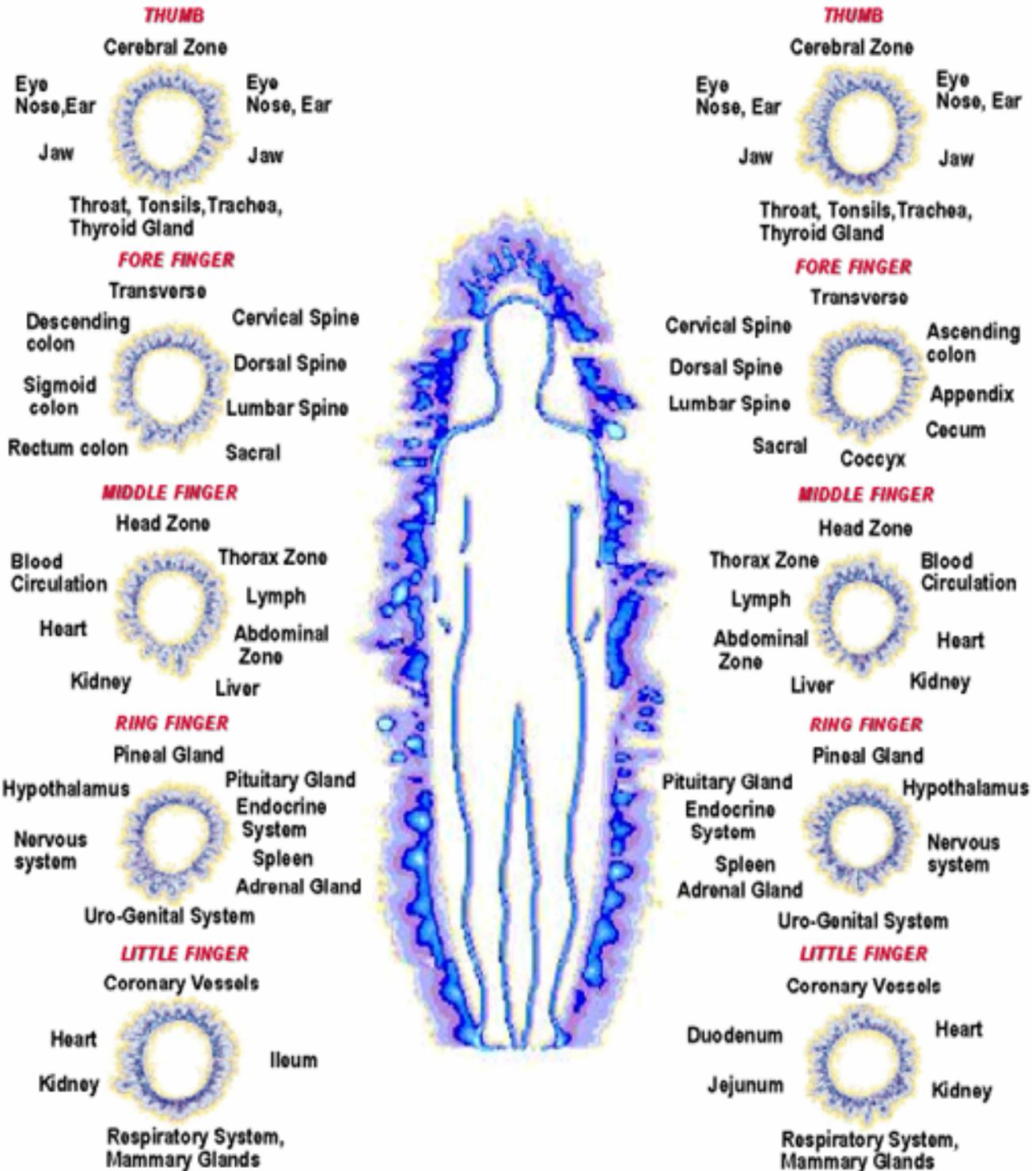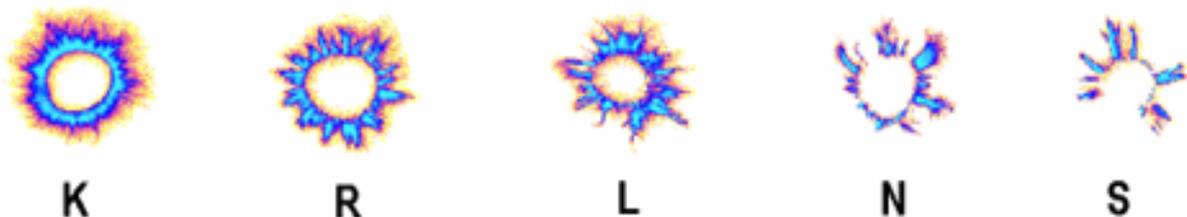GD – Gas Discharge; OS – Optical System; GDV S – GDV software; D – diagnosis.

Fig.3. Calculation of a finger BEO-gram parameters in the GDV-Processor program.

BEO GDV

Diagnostic Table

THUMB

Cerebral Zone

Eye
Nose,Ear

Eye
Nose, Ear

Jaw

Jaw

Throat, Tonsils,Trachea,
Thyroid Gland

FORE FINGER

Transverse

Descending colon

Cervical Spine

Dorsal Spine

Sigmoid colon

Lumbar Spine

Rectum colon

Sacral

MIDDLE FINGER

Head Zone

Blood Circulation

Thorax Zone

Lymph

Heart

Abdominal Zone

Kidney

Liver

RING FINGER

Pineal Gland

Hypothalamus

Pituitary Gland
Endocrine System

Nervous system

Spleen

Adrenal Gland

Uro-Genital System

LITTLE FINGER

Coronary Vessels

Heart

Kidney

Ileum

Respiratory System,
Mammary Glands

THUMB

Cerebral Zone

Eye
Nose, Ear

Eye
Nose, Ear

Jaw

Jaw

Throat, Tonsils,Trachea,
Thyroid Gland

FORE FINGER

Transverse

Cervical Spine

Ascending colon

Dorsal Spine

Lumbar Spine

Appendix

Cecum

Sacral

Coccyx

MIDDLE FINGER

Head Zone

Thorax Zone

Blood Circulation

Lymph

Abdominal Zone

Heart

Liver

Kidney

RING FINGER

Pineal Gland

Pituitary Gland
Endocrine System

Hypothalamus

Spleen

Nervous system

Adrenal Gland

Uro-Genital System

LITTLE FINGER

Coronary Vessels

Duodenum

Heart

Jejunum

Kidney

Respiratory System,
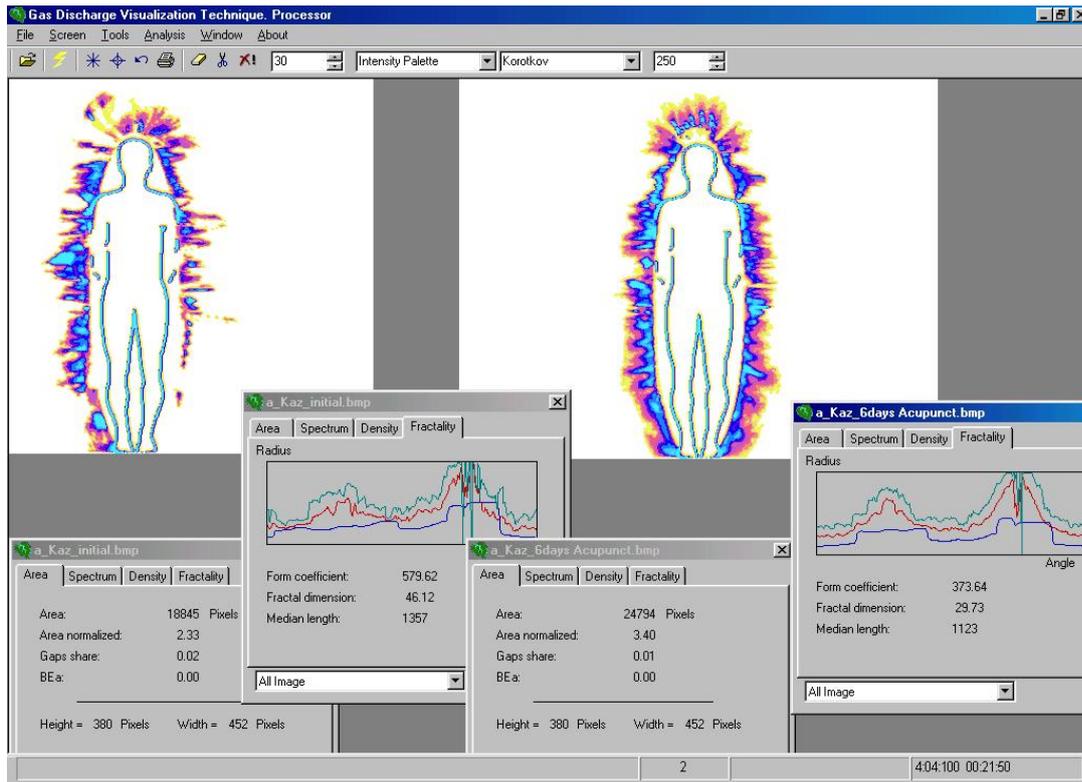Mammary Glands

Type of Image

K   R   L   N   S

Fig.5. Comparison of GDV Auras and calculated parameters of a person before and 6 hours after acupuncture session.
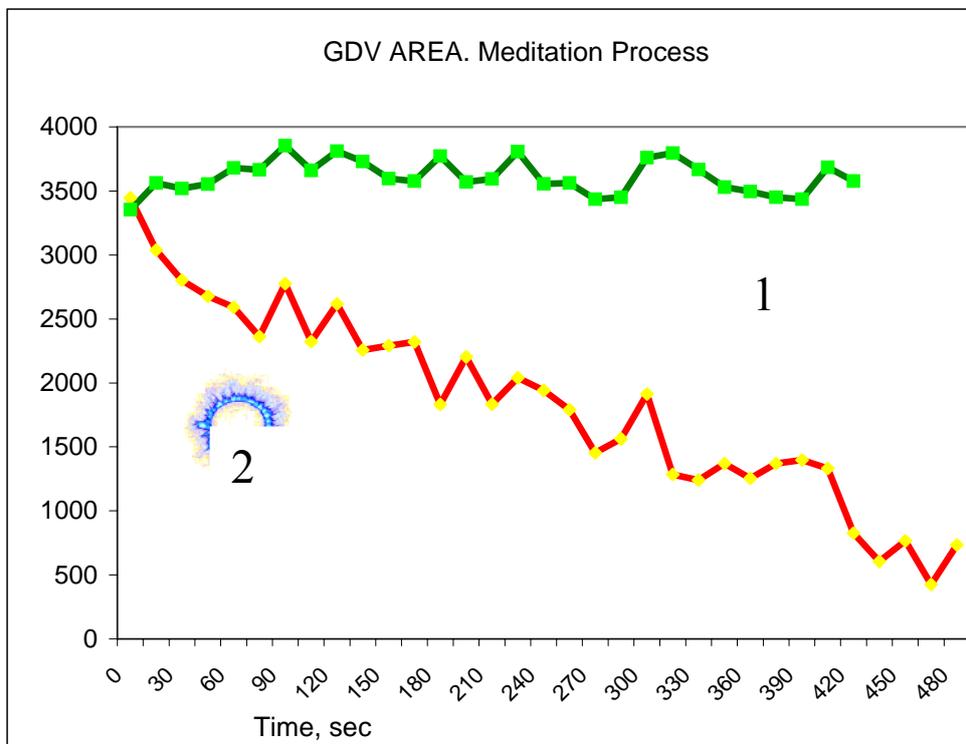

Fig. 6. Time dependence of the BEO-gram area of the 4th finger for relaxed person (1) and person in the process of meditation (2).
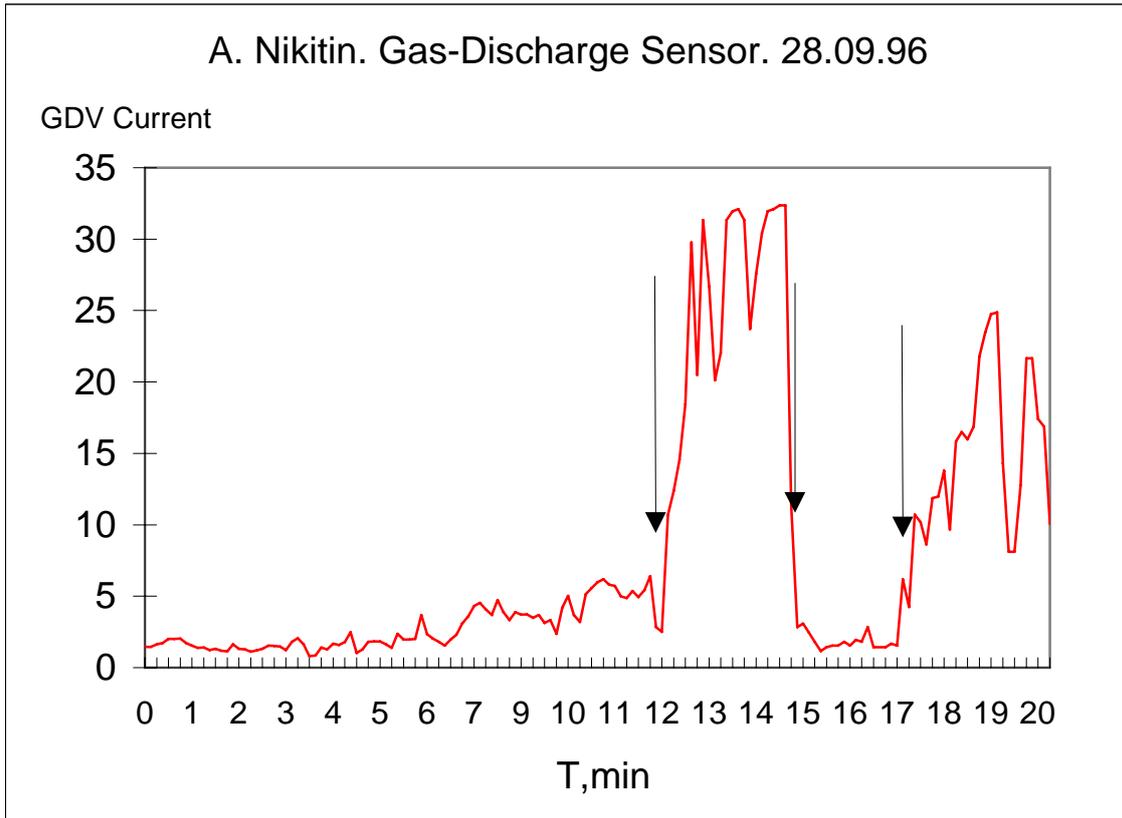
Fig.7. Time dependence of the GDV current from the 4th finger of a trained person in the process of meditation-concentration exercise.
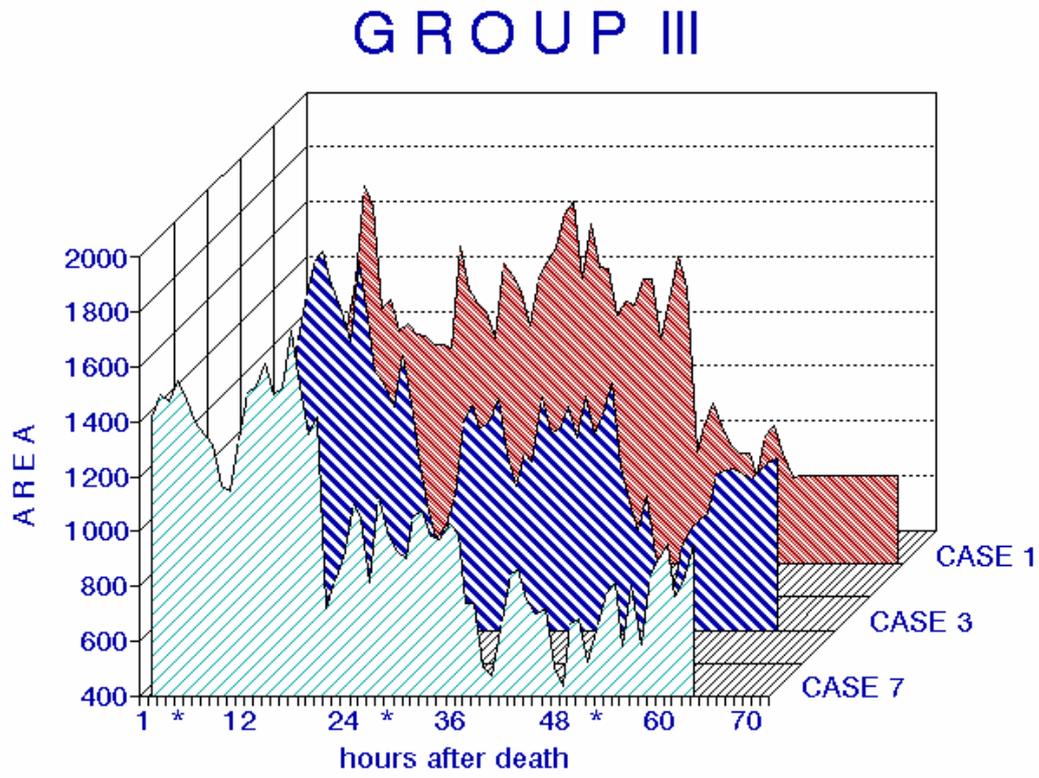
Fig.8. Gas - Discharge Glow of dead person fingers for some hours after the death