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RESULTS AND FUTURE PROSPECTS OF GDV-GRAPHY APPLICATION IN MEDICAL THERAPY

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The principle scientific subject of hospital therapy chair is bronchial asthma (BA). For about three years in the context of new medical technologies' introduction we have been co-operating with Prof. Konstantin G. Korotkov on Gas Discharge Visualisation method introduction in medical practice.

Our studies are based on cholic concept of patients' state valuation, built on synergetics' conceptions. As synergetics puts it, people are complex nonlinear beings, and they consist of many functional systems, joined by weak and nonlinear links. Any disease is accompanied by changes in functions of many systems with prioritized regulational disturbances in one organ. We have tested 300 BA patients, the majority of them had changes in central and vegetative nervous system and in metabolism, hormonal misbalance symptoms, immunologic displacements. A half of the patients were revealed digestive and renal dysfunction. Dysfunction of digestive system mostly showed itself in dyskinesia, disbacteriosis, urinary-glomerulus dysfunction. With scintigraphy data they were marked correlation of functional displacement with vegetative misbalance and disturbance of lungs' perfusion. Thus, apart from chronic inflammation, changed sensitivity and bronchus reactivity, multiple dysfunction of different systems and organs were defined. In order to evaluate such system defects we need cholic methods of diagnostics which allow evaluating activity disturbances of different functional systems (FS) and organism in general. Cholic diagnostical methods include studies of biologically active substances, which part in inflammatory cascade of BA patients has been studied well. Such general criterion for ill and healthy person's state evaluation can be energetic homeokinesis' indicators.

Up to present time medical practice used methods of recording biopotentials to define functional disturbances of different systems, for example – electrocardiography (ECG) – for heart, electroencephalography (EEG) – for brain.

Is GDV-gram of human's fingers able to be a marker of energy exchange in inner organs and organism in general? Following physiological concept of European and Oriental medicine we suppose that it is. It is true that reliability of integral functioning of the organism is provided by vast overlap zones of vegetative and somatic innervation. Innervation unity of separate organism's parts is a structural base for existence of many acupunctural systems - bases for efficient medical impact on all FS of the organism. It has been proved that nearly all organs are projected on hands, distal points of hand fingers have the widest cortex representation.

On the basis of these data we set ourselves the task to study clinical informativity of GDV-graphy.

In the initial stage of the investigation the evaluation of general GDV-gram changes was carried out. The analysis of work on studies of GDV-graphy clinical informativity for BA patients and healthy people was the following:

1. 40 healthy people had various types of GDV-grams. Mostly K- and R-types were recorded. They were characterised by quite equal radiance corona with complexity of the outer contour - fractality. In R-type fractality was more marked than in K-type. Basic GDV-gram parameters (picture area, noise level, fractal coefficients) for 78 atopic BA patients in mild form of the disease were nearly the same as those for healthy people. We suppose that types of GDV-gram characterise more psychophysiological state of the person than define the nosology.

2. 40 BA patients were checked-up by GDV-graphy, EEG and ECG methods, and the relations between electrophysiological characteristics of hand fingers, brain and heart were revealed. The noise level was higher and GDV-gram fractality was more marked for patients with preserved alpha-activity of cerebrum brain (2nd ECG type). These GDV-gram indicators were much lower for patients with slow delta-waves' dominance (3rd ECG type). GDV-gram area correlated with ECG RR interval value, the noise level – with ECG PQ interval duration. When the disease gravity increasing, the GDV-gram parameters changed obviously; radiance area, the noise level and picture fractality decreased, EEG marked the decrease of cerebrum brain activity, disturbances in duration of ECG intervals. The revealed for tested patients ECG changes' nature is typical for vegetative disturbances, and it can be suggested that vegetative nervous system plays a significant part in regulation of energetic homeokinesis of some functional systems and organism on the whole.

3. 20 BA patients were tested their psychological status with Spilberg-Khanin questionnaire and Lusher colour test. The test showed that the dynamics of patients' psychological states during the course of treatment also correlated with GDV-gram changes. Rise of the patients' work capacity was accompanied by increase of GDV-gram area. Increase of activity and falling of anxiety level correlated with increase of GDV-gram noise level. Unity of neurogumoral mechanisms of emotions' regulation and energetic processes could be based on the fact the same structures of nervous system - limbic and vegetative - participate in their supply.

4. GDV-gram changes analysis of bronchus inflammation nature (eosinophilic or neutrophilic) was carried out for 92 BA patients by the data of sputum cytology and bronchus-alveolar lavage data. More marked GDV-gram changes (broken contours, local outbursts) were noted in the cases with neutrophilic inflammation. These differences could be connected with different biochemical base of inflammation variants, for example, with different degree of superoxide oxygenic processes' activation, specific features of cytokines' profile and disbalance of proteolytic and anti-proteolytic functions of lungs. BA

exacerbation against the bronchus inflammation process exacerbation background was accompanied by decrease of the radiance area, noise level and picture fractality level. We concluded that GDV-gram dynamic investigation in the course of treatment can help evaluate nature of pathological process' flow, improvement or failing of the patient's state.

5. In order to analyse the influence of smoking a cigarette on GDV-gram, 10 healthy people and 10 patients with chronic obstructive disease of lungs were tested. The analysis revealed essential GDV-gram differences in the reaction on smoking a cigarette of chronic bronchitis patients and BA patients. In 5 minutes after smoking a cigarette healthy people and BA patients were noted decrease of GDV-gram area and form coefficient, in 30 minutes – the noise level decreased sharply for BA patients. Chronic bronchitis patients, the opposite, had the increase of GDV-gram area and form coefficient. Positive changes in BEO-grams of chronic bronchitis patients preserved 30 minutes after smoking and were more marked for "chain smokers" (having smoked more than 10 cigarettes a day for more than 5 years). Studies of "smoking" indicator in connection with other state indicators was conducted for 295 BA patients. It revealed statistically essential links of the "smoking" indicator with alveolar macrophags of sputum and bronchoalveolar sample, with neutrophils and changed epithelium of the sample. As literature puts it, smokers' bronchus inflammation has mostly neurophilic nature, and if eosinophils are revealed, they are characterized by lower functional activity (comparing to BA patients). These might be morpho-functional differences in inflammatory cell markers' membrane receptors of chronic bronchitis and BA patients that determine the specific features of smoking influence on GDV-gram parameters for the patients of these groups.

6. While evaluating of energetic effects of basic medicamentous and nonmedicamentous remedies used in BA treatment, it was revealed that the most positive effect on GDV-gram indicators is exerted by becotid inhalation, acupuncture, blood ultraviolet radiation and constitutional homeopathic remedies. Broncholithi6 berotec inhalation is not so often followed by marked positive GDV changes. The received results prove the synergetic data of efficiency of small influences (homeopathy, acupuncture, in particular) in therapy. With the help of these methods sanogenesis recovery can be reached by autoregulation, and it will take less "wastes" of energy on protection from outer influences. It was revealed the inhibiting influence of dexamatazan intravenous infusion on EEG and GDV-gram parameters. Thus, clinic improvement of BA patients' state after daxametazan infusion can be achieved at organism's energoexchange disballance expense. These negative energetic effects of system corticosteroids, when taken for a long time, could be the cause of frequent side effects and complications. By the data of oute resperatory function's studies, the direct broncholithic effect of weak influences on organism (acupunctural, for example) is much weaker than the one of corticosteroids. The positive effect of weak influential course treatment could be connected with regulation and normalization of energoexchange. The results of conducted studies let us recommend to use allopatic and naturotherapeutic remedies and therapeutic methods in complex in order to rise BA treatment efficiency. The revealed relations between

BA patients' state indicators in the course of treatment can testify the essential part of energetic homeokinesis changes in the improvement of patients' functional state.

As to the programme of future investigations in the sphere of GDV-graphy, we would like to note that we are going to continue following the principles of GDV-gram correlation with patients' state clinic indicators. Clinic informativity of pathology zones (sectoral diagnostics) will be studied by the analysis of GDV-grams for the patients with different diseases of heart, lungs, kidneys, alimentary canal, endocrine system. In our projects we have the studies of influence of age, sex, psychological status features, smoking on GDV-gram of healthy people. We are also going to compare various groups of patients - BA and chronic bronchitis patients, BA patients with ulcerative disease of the stomach and with duodenal ulcer, BA patients with hepatobiliary system pathology. We are going to continue our studies of influence of alternative and complex preparations and methods of BA treatment on GDV-gram. GDV physiological mechanisms' investigation and the received results' application for diagnostics and control of therapy efficiency can become the subject of wide international scientific co-operation.

THE INVESTIGATION OF INFLUENCE OF THOUGHTS OVER HUMAN AURA USING GAS DISCHARGE VISUALIZATION METHOD

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In our previous investigations, carried out with the help of the cardiology diagnostic complex “Varicard” using methods of mathematical analysis of cardiac rhythm, we discovered that the thought and the heart are interrelated and that the thought, as well as energy, may change the cardiac rhythm: increase or decrease the heart rate, effect the vegetative balance within the regulation of cardiac activity and influence upon the functional condition of regulator systems of the organism. Using Gas Discharge Visualization method in the present work, we managed to visualize the changes arising in our organism on the energy level when receiving and sending thoughts. The combination of two techniques – ECG and GDV – gives an opportunity to better realize the processes occurring in the organism on the physical and energy level in the thinking.

The purpose of the present work is the study of correlation of the human thoughts and human aura. The research was carried out by the firmware complex “Corona –TV”, which registers the pictures of GDV-fluorescence of fingers following computer processing and creating human aura around human body. Sensitivity of this device made it possible to fix the changes, occurring in the aura as affected by different thoughts, visually.

The investigations were performed over the people practically healthy during 6 months. The number of patients – 50 people. The most interesting results were obtained from the close people having quite harmonized auras.

All the elements of nature are interrelated and interdependent. Hence, a human being is constantly interacting with the environment and other people. GDV-pictures clearly show the changes of human aura, taking place both in the process of mental concentration upon a certain person and in the process of direct contact with him, and also during sending thoughts into the space or to a certain person. The analysis of pictures of the fingers' GDV-fluorescence and of the whole body's spatial aura gave an opportunity to reveal the following interesting facts:

1. The thought is fixed, which comes from the heart when sending a thought about common good into the space and mentally concentrating on a close and beloved person. The luminescence of energy, coming from the cardiac chakra and exceeding the width of the aura twice or thrice, is clearly observed on the aura. On the GDV-pictures of fingers the fluorescence of energy, coming from the left little finger, is clearly seen, as well. In addition, the aura itself generally remains evenly bordered around the body, enriched, without breaks and holes and without energy outflows from the other energy centers. The energy of love is quasi “flying” from the heart. At that the pulse is rising by 10-15 beats per minute.

2. The thought is fixed, which comes from the brain in the process of mental concentration on a certain work. The luminescence of energy coming from the left cerebral hemisphere in the form of energy outbursts, exceeding the width of the aura twice, is observed.

Where does a thought originate from? This problem has drawn the attention of many eminent scientists. The Nobel Prize laureate J. Accls supposed that the brain is the acceptor of thought and not its producer, that is the brain just receives and processes another's thoughts, but does not produces them. Academician N.P. Bechterevev considers that there are not enough facts in this theory. As regards the simplest thoughts, the brain is quite capable of dealing with them, but as for the ideas, conceptions, etc., the problem becomes deeper. The Professor of Melbourne University Doctor Herst in 1995 discovered that the heart could think independently, that is it could change its rhythm independently of the brain. The results received by us give a supplementary information for the further study of this problem.

3. It is shown that when thinking of the beautiful (of good for the other people or of the common good) the transformation of the aura's image takes place: the energy emanation decomposes in the lower energy centers and goes up to the upper. Benefit for the human health is also visualized – even the aura of a tired-after-work person is enriched with new energy when thinking of the beautiful; it becomes more powerful and intensive.

4. An intensive interchange on the energy level between close people is disclosed: even a mere touch of a hand of a close person totally changes the aura, enriching it with energy, making it smoother, brighter and even filling the defects present. However, it is not just a physical touch, which changes the aura; mental concentration produces the same result.

Thus, our research work reconfirms the fact that the thought is the energy, which can be visually fixed by extra-sensitive equipment. The thought effects our aura, changing its energetics, hence, it influences on our physical state. It turns out that being an altruist is beneficial for the health.

Already antique philosophers taught thinking of the beautiful. Great Platon said: “Thoughts govern the world”. Christ taught: “Protect yourself against bad thoughts. They will turn to you and settle on your shoulders as a loathsome leprosy. But good thoughts will rise high into the air and will rise you. It should be learned how much a man bears both the healing light and the fatal dark in himself.”

One should realize the responsibility for his thoughts since not only us are affected by these, but also the people around us, and firstly, our relatives. As Pascal said: “Let us learn to think good – this is the main principle of the morals.”

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BEO GDV-IMAGE RECOGNITION SYSTEM

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For automatic classification of BEO-grams we have constructed a self-learning system of pattern recognition. It is able to judge what class an object belongs to and also creates the automatic descriptions of the particular class. The system is based on the attributes of Beo-grams divided into several groups:

The integral characteristics describe the image in general quantitative terms:

- total area of the image S , defined as the number of pixels with the brightness higher than a fixed threshold b_s ;
- the areas S_i of the shades of gray, defined as the number of pixels within the brightness interval $[b_{i-1}, b_i]$;
- the integral brightness of the image: $\sum_x \sum_y b(x,y) / S$;
- the length of the image's perimeter L .

The spectral parameters describe the image in common statistical terms, like:

- the square of the brightness and fragmental spectrums;
- mean values and dispersions;
- quantil parameters (low and high quartils, medians of the spectrums).

The fractal characteristics:

- the form coefficient $q = L \cdot L / S$;
- the Mandelbrot fractal coefficient.

The structural characteristics, describe the general outlook of the image, e.g.:

- the number and the average length of the streamers;
- the number and the area of the spots;
- distributions of above mentioned values;
- parameters of the inscribed ellipse.

The crown characteristics, dealing with the form of the crown of the discharge, with the square distribution of described concentric ellipses etc.

All these parameters are being calculated in the GDV programs and some of them presented in the “GDV Processor” and “GDV Analysis” programs. For every type of the attributes, there are specific methods of their processing. The attributes used in the description of GDV-images are *en masse* stochastic, and accordingly the apparatus of the theory of mathematical statistics is used. The system can be effective if the vocabulary of the selected attributes is extensive enough, so all the attributes described above are taken into consideration. System life cycle consists of several phases.

At **first stage**, an educative set of images is introduced to the system, with every image *a-priori* assigned to a class by the teacher:

$$[\omega_{11}, \omega_{12}, \omega_{13}, \dots] \subset \Omega_1 \dots [\omega_{k1}, \omega_{k2}, \omega_{k3}, \dots] \subset \Omega_m$$

Every object ω_{ij} of the educative set is represented by the concrete values of the same attributes:

$$\omega_{ij} = \{x'_1, x'_2, \dots, x'_n\}$$

Mathematically processing the subsets of attributes, the system can form “statistical portraits” of every class, i.e. the specific form of distribution laws Φ_i and its parameters (β_i, δ_i) :

$$[\omega_{11}, \omega_{12}, \omega_{13}, \dots] \subset \Omega_1 \Rightarrow \Phi_1(\beta_1, \delta_1; x_1, x_2, \dots, x_n) \dots$$

$$[\omega_{k1}, \omega_{k2}, \omega_{k3}, \dots] \subset \Omega_k \Rightarrow \Phi_k(\beta_k, \delta_k; x_1, x_2, \dots, x_n)$$

The **second stage** assumes the examination of the system.

At this stage the test objects are introduced to the system. With known functions Φ_i for every given object $\omega_t = \{x'_1, x'_2, \dots, x'_n\}$ it is possible to estimate a statistical risk of the decision that object ω_t belongs to class Ω_i . The class with the minimum risk Ω_i could be selected as the most perspective candidate for the final decision. Comparing this decision with *a-priori* known, the teacher evaluates the system’s performance.

If a teacher considers the system to operate with the acceptable quality, he launches it into autonomic exploitation (the **third stage**). Otherwise the teacher has to proceed with the education procedure, or the problem cannot be solved by the used mathematical approach.

Described principles have been practically implemented into program complex. The system was tested on the samples of water with different chemical stuffs with low concentrations. The total number of the attributes under consideration was 17; the educative set for the learning system consisted of 175 samples; the rule base of the knowledge-based system included 47 rules. The control group consisted of 25 samples, 5 of each type.

After the education and rules correction both systems were able to distinguish between the samples without any mistakes. The results encouraged launching wide series of

experiments in different segments of applications. At the next stage the system was able distinguish between Aura BEO-grams of different people.

A SUMMARY OF DRs. GROTT's ARTICLE

ONCOLOGICAL KIRLIANGRAPHICAL DIAGNOSIS

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INTRODUCTION:

The Authors present the discovery of a sign obtained with Kirlian Photos of the human beings digital pulp.

A Kirlian Camera, Model 6ST, “Standard Newton Milhomens” was used and it was obtained the habitual pattern of image, composed basically for the colors blue, white and rose as are common in “Standard Newton Milhomens”.

Starting from 1985, Kirliangraphy was introduced as a method of accompaniment of cases of malign neoplasia. There are differences among the normal individual's Kirlian Photos and the individual's Kirlian Photos that suffers of malign tumors. In the individuals that have malign neoplasia a special sign was detected, corresponding to a traverse rift, of centrifugal direction to the elements of the energetic halo that was called “fracture.”

There are differences in the individuals' halos that present tumors of epitelial origin and in the cases of linfoma, leucosis and malign bony tumors, and the “fracture” (or “fractures”) comes in a special way. In the cases of leukemia, as its origin, doesn't also appear any “fracture”, but yes other signs that were baptized of “myriad” and “avalanche.”

It is considered the hypothesis that those signs (“fracture”, “myriad” and “avalanche”) are bioplasmatic phenomena and they can come to demonstrate the existence of a possible predisponent factor of the oncogenesis.

MATERIAL AND METHODOLOGY

The present study is part of a project developed since 1978, in the Military Hospital of Curitiba (PR) - 5th Military Area - Division of Army, driven to the sick ones with malign neoplasia (project IONO).

1.100 cases were studied, where 100 of them presented neoplasia malign proven histopathologically.

It was observed that in the normal individuals, that didn't present malign neoplasia, the energetic halo was always, in 100% of the cases, considered as normal, presenting the colors white, pink and blue, without any "fracture", "myriad" or "avalanche." With the individuals carriers of malign neoplasia always appeared in the energetic halo, in 100% of the cases, the signs that were called of "fracture", "myriad" or "avalanche", according to the type of existent tumor.

The alterations found in the halos of the carriers of malign neoplasias were deeply analyzed and compared and this can be made possible as complementary exam to detect a possible predisponent factor, because we observed that, in some cases, the malign tumor only appeared about 3 months after having been made the Kirlian Photo and some of the signs above mentioned appeared. In another cases, even after the surgical retreat of the affected organ, still appeared some of the signs above mentioned, same having passed some months, after the surgery.

COMMENTS

1. The analysis of the material obtained by the Kirliangraphic study demonstrated that enormous differences exist among the accomplished exam in the normal individuals and in those individuals carriers of malign neoplasia. In these last ones, the presence of a sign is detected that was stipulated to call of "fracture", for its characteristic aspect of crack (it splits traverse of centrifugal direction to the grooves of the halo).
2. Variability of the patterns of "fracture" with the neoplasia type: - in the tumors of epithelial origin, the "fractures" are more frequent, clearer and larger (tongue carcinoma, esophagus, stomach, colon, prostate, liver, uterus, skin and central nervous system) than in the cases of linfoma, leucosis and bony tumors.
3. The alcoholic persons', the heart's patients, epileptics', the carriers of bacterian/viral infections' halos, in spite of having altered, in agreement with the classic outlines of Prof. Newton Milhomens Standard, they don't exhibit any likeness with the "fractures" found in the carriers of malign tumors.
4. In the great majority of the cases, there is the possibility to be early to the histopatologic analysis, through the evidence of "fractures." We will describe to follow 4 cases for best to exemplify and to illustrate:
 - a. Patient with increase of prostatic consistency to the rectal touch. Kirliangraphy: - "fracture." Biopsy for needle of the prostate: - Without evidences of neoplastic matterial. After 5 months, prostatectomy and pathological anatomical study of the piece: - Prostate Adenocarcinoma.

- b. Patient with clinical diagnosis of metastatic tumor located in the neck. Kirliangraphy: - It didn't show "fracture." Biopsy of the tumor in the neck: - negative for neoplasia; the final diagnosis was of luetic process.
- c. Patient with 70 years of age, carrier of carcinoma espinocelular in the skin of the cervical area. Kirliangraphy: - Before and after the surgery the "fracture" i continued unaffected.
- d. Patient with 60 years of age, submitted to right hemicolectomia for tumor of the ceco, resection made with good margin of safety and without evidences of metastatic signs. 8 months after the surgery, it presented "fracture" in all the 20 Kirlian Photos that we took of him.

CONCLUSIONS

- 1. The "fracture" can be a bioplasmatic factor due to the oncogenesis, it presents a great probability of being the manifestation of a lesion capable to predispose the individual to develop a malign tumor.
- 2. The "myriad" and the "avalanche" are also bioplasmatic factors due to the oncogenesis
- 3. The bioplasmatic factors doesn't disappear with the coming of the surgical treatment, nor with the radiotherapy nor with the chemotherapy.
- 4. Kirliangraphy tries to detect the individual's predisposition to develop malign tumors antecedently to its organic appearance.
- 5. An effort group is waited so that with experiences of another medical centers, we can detect a possible predisponent factor of the oncogenesis.

OBSERVATION:

This same work type was accomplished in Brasília, in the nineties, by Dr. Marcelo Souza, in the Centro de Fotografias Kirlian de Brasília, (Kirlian Photographies Center of Brasilia) with similar results, but any work was not still published on the subject by Dr. Marcelo.

(I showed the slides for you. Did you remember?)

CONTRIBUTION FOR THE STUDY OF THE KIRLIANGRAPHIC ALTERATIONS IN THE SPORT ACTIVITY (DISSERTATION OF MASTERY)

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It dates December 22, 1989

SUMMARY:

The present study shows the kirliangraphic alterations happened in the physical activity.

These kirliangraphic alterations are the bioenergetic variations during the application of a strong incentive, in the athletes' training and observed through the colored and structural modifications presented in the Kirlian Photos.

The sample involved twenty athletics athletes that were the subjects through which were obtained the data.

It was adopted as measure instrument a Kirlian Camera, model 6SL-1, "Standard Newton Milhomens", of national production.

The results obtained in the study allowed to evidence that:
Under the action of a strong incentive the energy alteration appears (luminous, colored). Those alterations are observed in almost all the quadrants of the standard kirliangraphic (structures, shapes and patterns). In those alterations the altered energy presents as if it was escaping from the quadrants.

CONCLUSIONS and INQUIRIES:

Conclusions

1. When there is a strong incentive in an athlete's training, there is an alteration in the energy observed in the kirliangraphy. In the present study, it tried to just observe the red energy, shapes, structures and patterns.

It was verified that the alterations with the red energy were always given when there was strong incentive. The verified truth is that it really circulates, it is moved, and loses temper with the human physical activity.

2. These alterations were observed in almost all the quadrants of the kirliangraphed model (structural pattern).

It is supposed that they happen as if it was an energy whirl, representing, perhaps, the vitality of the integral energy that coordinates the movements of the molecules and cells that compose the organs of the human organism, gathering them in an all organic one defined, that today is denominated of physical body. And that, when stimulated intensely, those energy are moved to make its re-balance. And, in that movement, it is supposed that the process that develops the health, or energy balance happens.

In the kirliangraphy, the energy balance would be the balance Yin (-) and Yang (+), that is to say, the proportional balance among the blue and red energy as they appear in the Kirlian Photos, in the illustration 7, of the page 50 and in the illustration 8, of the page 52.

3. The kirliangraphic modifications happened with the researched red energy presented in the Kirlian Photos, as if they were escaping from the quadrants.

Really, being observed the illustration 9, of the page 52, it is verified that the red energy escapes from the quadrants as if it was leaving the outside “corona.”

The “corona”, in the kirliangraphy, represents the limit of the auric configuration , that is to say, the energy and invisible field that involves the human body, represents 1, of the page 4, similar to the lines of force that involve a magnetized object.

That auric configuration that involves the human body is endowed with energy processes that have to do a lot with the physiologic functions. And, it is known today, that the red energy is responsible for the motricity (Moss, 1979). Therefore, when it takes place an intense movement with the physical body, it circulates, it is moved. And, that movement does with that this energy, in the kirliangraphy, appear as if it was escaping for the quadrants of the Kirliangraphic model - it Represents 2, page 5.

Why she escapes, one doesn't know how to explain. But, the Kirlian Photos removings in the experiments and whose models are represented by the illustrations 9, 10, 11, 12, 13 and 14, they are quite significant to check the hypothesis formulated in this thesis.

Inquiries:

1. Will those important energy alterations be to settle down a pattern to evaluate a training and to verify an athlete's health?

2. How would that pattern be and which the kirliangraphic factors that they would determine it?

3. Would it be possible to use that pattern as evaluation factor for any type of activity and/or physical sporting?

The placed subjects suggest the need to confirm this research line, that promises to be of great value in diagnosis, preventive and counselment. Probably the areas enriched scientifically with the answers formulated they won't just be the health, the motricity, physical acting and energy, but the better knowledge of this microcosm than is the human being.

An extensive list of bibliographical reference is proceeded, with about 40 titles of books in Portuguese and in English, of several authors, national and foreigners.

PHOTO KIRLIAN, A NEW TOOL OF SAFETY'S ENGINEERING: REALITY OR FICTION?

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SUMMARY:

This work has for purpose to investigate possibilities of use of the Kirlian Photography in the detection of harmful components of environmental pathology to the worker. Although it is not had any work recognized by the Scientific Community about the applications of the kirliangraphy with this objective, its use is thoroughly diffused in the called Alternative Medicine. Initially, Kirlian Camera's electronic circuit is presented, in a simplified way. The Kirlian Photos were obtained with a Kirlian Camera, Model 6SL-1, "Standard Newton Milhomens", of national production. Initial experiments were accomplished, based on the information contained in the User's Guide, such as ideal time of exhibition, pressure and position of the suitable finger, applied potency and its forms of wave of the apparel output. To proceed, they were placed in form of tables, two samples of Kirlian Photos of the considered human beings forefinger "healthy" and "intoxicated." In the Kirlian Photos appear colored halos in turn of the photographed fingers, in a general way, in the colors yellow, orange, rose, red, blue, green, brown, besides the black and white. It is possible to detect, visually, the number of emission focuses and the black lacunas of the surrounding halo. All the Kirlian Photos were enlarged in a same size, seeking to relate the elliptic contour of the support of the finger with the size of the black lacunas. They were defined four areas along the contour, guiding the point of the finger upward: - rose superior and inferior, blue lateral right and left. With the aid of statistical calculations, it was verified the correlations between the lacunas and the number of emission focuses for centimeter in each one of the areas. The main Kirlian Photos of the experiments are enclosed in this monograph. The last experiment was accomplished in the substation of 500kV of Gravataí (RS) of ELETROSUL, seeking to detect in the Kirlian Photos the effects of the eletromagnetic field in human beings. This work is an initial registration for the development of another research works in this area.

CONCLUSION:

This monograph, in its conclusion, presents, in prominence, the initial hypotheses:

The Kirlian Photo presents the repeating condition.

The Kirlian Photo is not a fiction. In this monograph a significant difference was verified with relationship to the size of the empty spaces among people “intoxicated” and “healthy.”

This work presents as a first step for another researches in this area.

In function of the number of the samples and of the control conditions in that the work was made, the conclusions here presented they can be considered as scientifically valid.

An extensive list of bibliographical reference is proceeded, with about 30 titles of books in Portuguese and in English, of several authors, national and foreigners. Soon after to the Bibliography, exist “Appendixes” where several statistical tables are shown, photos of oscilloscopes screens with the forms of wave of the Kirlian Camera, and several Kirlian Photos.

ALTERNATIVE STATES OF CONSCIOUSNESS BIOELECTROGRAPHIC CORRELATES AND PSYCHO-PHYSICAL MECHANISMS

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Introduction

To an end of the XX-th century it becomes more and more obvious that the knowledge of the psycho-physical mechanisms of consciousness and alternative state of consciousness in particular is impossible out of the synthesis of knowledge and methodologies of "substrate" and "bioenergetic" approaches which till now have in many respects separated the scientific schools of the West and East.

Methods of the investigation

For the last decade the Swedish model of mental training have been widely practiced in a number of European and Asiatic countries. The process of self-induction of alternative state of consciousness (ASC) is the key link of this model.

The task of the investigations were the study of the psycho-physical mechanisms of ASC by means of complex bioelectrographic analysis.

The following methods of bioelectrography were used in the work:

1. Mapping of brain EEG bioelectrical activity (BEAM-EEG), spectral analysis of EEG, mapping of the changes of cerebral hemispheres activated level in the course of ASC development.

2. Bilateral digital registration of quasi DC potential (patent of Russia .No 20113775, 1994) of "omega-potential" and the averaging of middle-latency evoked responses (MLER).

3. Registration of concentration - kinetic potential (Xy-potential) of meridional biologically active points (BAP) by means of the automated system "Zodiac" (patent of Russia No 2106799, 1998).

4. Registration of the intensity and patterns of energy emission processes (the Kirlian effect) by means of photomethod and the computerized system "Digel". In a number of control investigations "Corona-TV" device elaborated by Prof. K. Korotkov was used.

Results of the investigation

Investigations of the difference between ASC and wakefulness before and after mental relaxation have shown that ASC is characterized by:

1. Development of the non-dominant - harmoniously activated brain.

By means of the technology "BEAM-EEG" and bilateral registration of quasi DC potential we found that the ACS was accompanied by two interconnected processes: by reduction of the levels of fronto-occipital functional asymmetry of the cortex and elimination of the activation differences between the left and right hemispheres. The analysis of the space organization of the field of brain biopotentials carried out in control investigations by means of coherent analysis in the laboratory of A.Shepovalnikov (1997) enables us to define more exactly the specific character of changing the functional organization of biorhythmics in ASC. In particular, there found out that under the conditions of ASC the phenomenon very similar of the age reduction of biopotentials field are observed.

2. Optimization of the activity of the bioenergetic canals of organism and harmonization of the ergo and tropho-thropic subsystem (In and Yian) of cortical-visceral self-regulation.

In these investigations a computerized system for acupuncture diagnostic - ("Zodiac-96") was used. It should be noted that changes of the activity in the bioenergetic canals are correlated with improvement of the cortico-visceral regulation and the development of a positive psycho-emotional - "colagenic" state. The main common consequence of the normalisation of the bioenergetic homeostasis is an increased psycho-energetic potential of the subjects.

3. Statistically reliable intensification of the energy emission (Kirlian) during active imagination in IMR.

Investigations of the energy emission (EE) were made by the photometric system "Digel" with TV recordings of "real time measurements". The EE analysis confirms earlier findings of essential changes of the bioenergetic processes in ASC.

Particular was founded statistically reliable intensification of EE of the forth left finger in the projection of the endocrine glands mainly. Interconnection of the endocrine gland with the functional state of bioenergetic centers (chakras) is discussed in modern holistic medicine.

Very important from a practical point of view is that the degree of intensification of EE on the left hand was related with experience of subject in ASC and practice of imagination.

Conclusion

The findings indicate that systematic mental training not only alters program of self-regulation of the brain and of the bioenergetic homeostasis but also enhance self-regulation of the psycho-energetic activity. Results suggest that development of skills of the self-modulation of bioenergetic processes in ASC can be useful for health promotion, treatment of mental distraction, negative moods, and mental preparation in sport.

NEW TECHNOLOGY OF THE ATHLETES PSYCHO-PHYSICAL READINESS EVALUATION BASED ON THE GAS-DISCHARGE VISUALISATION METHOD IN COMPARISON WITH BATTERY OF TESTS

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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 [1], 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.

METHODS OF THE STUDY

1. Methods of subjective and objective assessment of psycho-emotional state and prognosis of the success of competitive activity [2].
2. Method of subjective assessment of skilled athletes' psycho-energy state (Profile of Mood States - POMS) [3].
3. Methods of testing of athletes' physical work-capacity ($V O_2$ max; oxygen pulse; time of PWC keeping).
4. Method of Biological Emission and Optical Radiation Gas Discharge Visualisation (BEO GDV) [4,5].

5. Method of the evaluation of meridional acupuncture points' functional state by registration of ζ -potential [6].
6. Expert evaluation of personified conclusions by the coaches of the athletes' readiness for a competitive activity.
7. Statistical processing of the experimental results by means of the correlative and factor analysis.

SUBJECTS OF THE STUDY

34 skilled athletes of the School of Olympic Reserve (St.Petersburg) and the North-West Centre of Olympic Preparation were investigated; they specialized in the following sports: swimming, Nordic combination and basketball. Among the subjects there were 29 Candidates of master of Sport and 5 masters of Sport. The subjects were between the ages of 17 – 22, 30 males and 4 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 with 11 person in each group:

- 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 using the “GDV” package of programs developed by the team of Dr. K. Korotkov 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 (1995): K-, R-, L-, N-, S- in accordance with the level of their deconstructurisation, 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 PPS 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 [5] this may be interpreted as a preliminary evidence for transition of top-level athletes to the state of Altered State of Consciousness [7] 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.

The athletes having high and low PPR are also notable for various reactivity of acupuncture points (AP) of Yian 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 ζ - 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 modeling 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 mobilization 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.

CONCLUSION

1. The GDV patterns of fingers' BEO-grams of skilled athletes have some specific features revealing correlation with psycho-emotional status and psycho-physical readiness of athletes for the competitive activity.
2. The results of the study of systematic bioenergy homeostasis and GDV patterns transformation in the course of modeling of athletes' readiness for the competition give reasons to assume a high informative significance and perceptiveness of using up-to-date computerized GDV technology in sport psycho-diagnostics.
3. The investigations carried out enable us to recommend the elaborated complex approach as a basic methodology within the limits of the international scientific program "Assessment and prognosis of top athletes' competitive activity".

REFERENCES

1. Puny A. Psychological preparation for competition in sport. – Moscow, 1969. – 86 p.
2. Unestahl L.-E. Integrated Mental Training. – Stockholm, 1997. – 240 p.
3. Mc.Nair D. et al., 1992
4. Korotkov K. Kirlian Effect. – St. Petersburg, 1995. – 215 p.
5. Korotkov K. Aura and Consciousness, New Stage of Scientific Understanding, St.Petersburg, 1999. – 303 p.
6. Bundzen P., Balandin V., Zagantsev V., Unestahl L.-E. Psychological training of the Olympic reserve: Advanced Practices. In "Youth – Science – Olympism". – Moscow, 1998. – pp. 66-68.
7. Unestahl L.-E., Bundzen P. Integral mental training. – St.Petersburg, 1997. – 42p.

PROSPECTIVES OF USING THE GAS DISCHARGE VISUALISATION TECNIQUE IN THE PROCESS OF PREPARATION OF ELITE ATHLETES

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THE AIM OF THE STUDY

The management and self-management of the process of preparation in sport is actual for all periods of training session during the athletes' sporting life. The search of new concepts, theoretical and practical approaches in preparation of athletes can give rise to the development of sport science and subsequent rise of sport results with preserving athletes'

health and well being. In developing this approach we need to take into account the following moments in athlete's preparation:

- Psychological description of general and specific conditions of sports activity;
- Integral characteristic of motor sports skills and habits accentuating the problem of realizing – non-realizing the motions at various stages of habit formation;
- Conception of the polifunctionality – polimodality of the notion of movements and ideomotor training;
- Conception of the athletes methodical and psychological preparation for competitions with special attention to the pre-start states; marking out the dome signs of readiness for the performance taking into account all methodical and psychological preparation, as well as the stages of preparation for the fulfillment of the particular sporting action;
- Program of mental training for each athlete.

The problem of elaborating the dynamic control of athletes' state under the conditions of training process and competitive activity is extremely urgent. Such methods should meet the complex of conditions:

- Non-disturbing character of the process of measurement;
- Dynamic control in real time;
- Methodical simplicity;
- Automated analysis of data with formation of significant conclusions;
- Prognostic value;
- Objectivity and independence on the skill of operator;
- Convenience of keeping a big data-bases;
- Possibility of working at the training and competition facilities.

In other words a method should be available for any coach or athlete being simple in work, reliable and with automated processing of data.

EXPERIMENTAL APPROACH

The method of Gas Discharge Visualisation (GDV) pretends to the role of such a method because in many respects it satisfies the mentioned above demands; it is also becoming well adopted in medico-biological practice.

In a long-term study with hundreds of athletes of different levels involved it was revealed a great informative significance of the GDV method by the registration of athletes' energy-informative state and the presence of particular signs in GDV BEO-grams that distinguish top-class athletes. These signs are manifested especially evidently in the process of mental modeling of a competitive readiness by athletes. The findings confirm the hypothesis about athletes' transition to Altered State of Consciousness (ASC) by the realization of the state of competitive readiness.

Based of this data we are developing quantitative approach to the methods of top athletes' selection and preparation. The task of the control of the methods of top athletes' relaxation in the post-competitive period and other rehabilitation after the end of sporting career is of great significance, as well. From the point of view of the developing hypothesis

the last task consists in teaching an athlete an active transition to ASC and passing on to an ordinary state which is typical of a practically healthy person under the conditions of calm vigilance.

EXAMPLE OF THE BEO-GRAMS' ANALYSIS

There were carried out some measurements of the state of Alexander Karelin at rest and in the process of mental modeling of competitive activity by means of the GDV Camera. Karelin A. is a thrice-repeated Olympic champion, eight-fold world champion, and ten-fold European champion. The results obtained may be interpreted in the following way.

The initial state is characterized by powerful, clearly constructed BEO-grams, well manifested for all the fingers (organism systems). The intensity of BEO-grams of the 2nd-5th fingers exceeds the average statistic intensity for a relatively healthy person in the waking state. It testifies to a high-energy status of organism and the activity of all physiological systems. The symmetry of right-left on all the fingers except 1L, 1R and 4R testifies to the lack of strikingly manifested asymmetry of cerebral hemispheres activity at rest that's to a balanced and steady nervous-psychical constitution. At the same time a relative blocking of 1L, 1R testifies to the permanent energy block which can be interpreted as the state of light nervous excitation; the asymmetric type 4R with the ejection testifies to a relative suppression of the processes of left hemisphere by the activity of right one. Thus, the cited BEO-grams at rest are typical of a physically healthy and active person, extrovert, with an intuitive attitude to life, in the state of relative excitation at the moment of the investigation.

By a mental modeling of competitive state a sharp asymmetry of the BEO-grams of the 2nd, 3rd and 4th fingers with an increase of activity of the 1st finger is observed. On the Aura BEO-gram the state is characterized by the blocking of body right side activity. It could be interpreted as a blocking of control from the part of left cerebral hemisphere with a heightened activity of right hemisphere, which is typical of the prevailing of subcortical activity, by the suppression of conscious activity with a sharp activation of general brain activity.

Apparently the observed changes appear to be a characteristic of subject's transition to the state of "readiness for the activity" which requires a heightened activity of subcortical processes as regards the conscious control of activity. We think that it would be advisable to speak about athlete's transition to the ASC with an appropriate reconstruction of psycho-physiological and energy processes.

CONCLUSION

Carried out investigation for a big group of athletes of different sport levels by using a complex set of methods demonstrated good prospective for the GDV technique applications in sport. This technique seems to be easy in use, inexpensive, with clear computer interpretation of the results and high level of informativeness regarding different states of sportsmen's psycho-emotional and physical conditions. This creates positive basis for the current applications of the GDV technique in sport medicine together with perspectives of developing useful and simple in use high-technology instrument for coaches and sportsmen.

LIGHT AND CONSCIOUSNESS: EFFECTS OF MULTI-WAVELENGTH INTERFERENCE PATTERNS ON HUMAN STATE

Dr Tom J. Chalko, Melbourne Australia

Introduction

Numerous experiments with bio-electrography (Gas Discharge Visualisation) clearly demonstrate that comprehensive information about human state is encoded in the Light that surrounds the human body. By recording and interpreting limited fragments of this glow (typically around fingertips), accurate physiological as well as psychological diagnostics is possible (Mandel, Korotkov, Milhomens).

Among many others, experiments of Dr Chiang Kanzhen with microwave spectrum of bio-emissions clearly demonstrate that, under certain conditions, the information present in electromagnetic vibration pattern of one living organism can be transmitted to cause physiological and even genetic changes in another living organism.

Above facts suggest that our Consciousness may be holographically encoded in the interference pattern of Light that surrounds every cell of our body.

This article briefly presents results of 3 year research into methods and techniques to influence and control the human state using spectral mirrors, filters and interference patterns that directly interact with human bio-emissions.

Effect of black clothing.

It is quite easy to demonstrate disruptive effects of black clothing to the human state using bio-electrography – see Fig 1 for example. Immediate and significant weakening of the glow is obvious.

According to established principles of Kirlian diagnostics (Korotkov, Milhomens) wearing black clothes produces effect that is similar to the effect of stress, depression, lack of energy or sadness.

Bio-resonance

The goal of the research project reported in this article was to find methods of spectral stimulation that cause repeatable, systematic and coherent improvements to human state as measured by bio-electrography. It was found that:

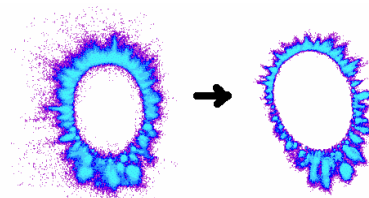


Fig 1. Effect of wearing black shirt on the skin for 2 minutes. Left – initial state. Shown bio-electrogram of just one finger

1. Near monochromatic colours have the strongest positive effect on human state
2. Colours in direct contact with human skin seem to have stronger effect than those perceived by our eyes from a distance.
3. A change of wavelengths is more effective than any particular wavelength.
4. Most effective are certain harmonious multi-wavelength interference patterns containing near-monochromatic reflectors in a wide range of wavelengths – from near infrared to UV.
5. Interference pattern that matches the main chakra frequencies along the human body produces most repeatable, systematic and coherent results.

To meet all of the above criteria simultaneously – multi-wavelength interference patterns were designed and printed on pure cotton fabric. Spectro-photometer was used to select pigments that produced near-monochromatic reflectors at specific wavelengths on the fabric. The

EFFECT OF BIO-RESONANT GARMENT

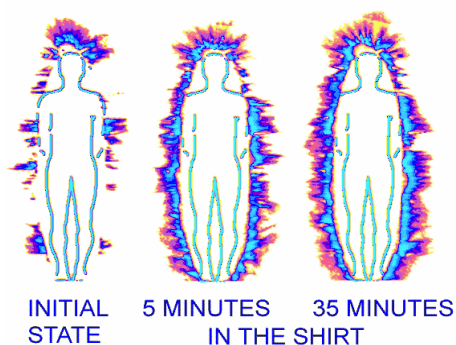


Fig.2. Reconstruction of bio-energy intensity from bio-electrograms

positive effect accumulates with time. The effect of the coherent change in human bio-energy field in response to tuned multi-wavelength colour stimulation was called “bio-resonance”.

Bio-electrography was and is frequently used by researchers (Korotkov) to evaluate and compare effectiveness of various therapies, both orthodox as well as esoteric.

Comparing various healing modalities it is quite difficult to find any treatment or therapy, which produces so positive, coherent, systematic, repeatable improvements of the human state so quickly and so effortlessly as the “bioresonant” chakra shirt.

fabric was then used to make clothing with specific spectral distribution that matched locations of chakras (so called “chakra shirts”). Many prototypes and 4 generations of experimental prints were developed and tested.

Fig. 2 presents a typical response of a tired person to a 4-th generation chakra shirt. Care was taken to eliminate any other influences on the person during the test. Results presented in Fig 2 clearly indicate that bio-energy field becomes more harmonious, more coherent and the

Studies of nearly all ancient civilisations show that traditions of making and wearing extremely colourful garments played an important part in their life. In nearly every folklore on Earth this tradition continues. What seems just a tradition had in the ancient past an important reason, related to the very basis of human existence. Can our science discover and improve principles that ancient civilizations already knew and practiced?

Conclusion

Preliminary studies of the mechanism of colour stimulation point to the direct interaction of the tuned interference pattern used with the information in our subconscious mind - encoded in the electromagnetic pattern of bio-emissions that surround us.

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ENERGY-INFORMATIONAL GRAPHIC-ANALYTIC DIAGNOSTICS OF OBJECTS AND THEIR HARMONIZATION. HYPOTHESIS

T. B. Chislova

The present piece formulates a method of diagnosing chrono-spatial formations undergoing changes in the space-time continuum, in order to register organic pathology and disharmony in a human being. Graphico-analytical diagnostics, based on energy information, allow to obtain, among others, the following results:

1. Location and determination of the egregor of cause-result distortions.
2. Collection of self-regulation points, and superposition of up to ideal-real with consideration of the ideal-current.
3. Visualization of some human biorhythmic characteristics in the ideal-real mode.
4. Fixation of the coordinates displacement with its axial distortions, characterizing the degree of pathology and the restoration factor.
5. Measurement of geometrical areas, characterizing the positional model of the planar loop whirls as an open form of phasal transitions of maximum-minimum stable object states in its environment, in order to discover the probability given the current period.
6. Study of the operational material allows to hypothesize that the dislocational loop is similar to the Moebius list, and introduction of the notion of transfer points opens up a way to understand the spatial structure as the carrier-transmission loop and consideration of the energy informational method as means of assessing evolutionary processes.

Energy-informational technology particularly in medicine allows doing express-diagnose as an open form of minimum stable object state phase transition in its environment with axial

distortions and foreign negative information included. Geometric area, axial distortions, space volume characterize positional model of probability according to the current period.

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GDV-GRAM IN EVALUATION OF MECHANISMS OF HOMEOPATHIC AND NONMEDICAMENTOUS MEANS OF TREATMENT FOR BRONCHIAL ASTHMA (BA) PATIENTS

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Homeopathy has been known as a mean of treatment for more than two hundred years. For all the period the criteria of homeopathic preparations efficiency have been improvement of clinical characteristics of a disease or patients' total recovery. Of course, different scientists - medical men, biochemists, biophysicists, pharmacists – have referred to such point as a mechanism of homeopathic preparations' action. At present time there is not a single view or theoretically proved theory of homeopathic remedies' action. In our investigation we tried to control homeopathic preparation's effect after a single swallow for BA patients with the help of GDV-gram. The test consisted of 6 stages: 1 - recording of the preparation's GDV-gram, 2 - recording of patient's fingers before the preparation swallow, 3 - recording of patient's fingers in 10 minutes after the swallow, 4 and 5 - recording of patient's fingers in 30 minutes and 2 hours after the swallow, 6 - processing of the received data. 27 BA patients, 18-50 years old, with different forms and phase of the disease took part in the test. The following homeopathic remedies were used as medicinal preparations: of vegetable origin (*Aconitum napellus*, *Beladonna*, *Bryonia alba*, *Ignatia amara*, *Ipecacuanha*, *Nux vomica*, *Pulsatilla platentis*), of mineral origin (*Calcarea carbonica*, *Mercurius salubilis*, *Silicea*, *Phosphor*, *Hepar sulfuris*) and animal origin (*Sepia*, *Lachesis*). All the remedies were prepared in the Haneman dissolution CH-6, dissolved and shaken successively. 9 people took preparations of the vegetable group, 7 – of mineral group, 4 - animal group. 7 others were given placebo.

Collation of GDV-grams of homeopathic preparations of different groups showed that indicators of radiance area and noise level in mineral origin preparations were higher than those in other groups of preparations. Encounter frequency of noise level's high values for minerals was 0.36, animals – 0.19, vegetables – 0.9. Encounter frequency of form coefficient's high values was higher for animal origin preparations - 0.55, for vegetables it was 0.25, for minerals – 0.10. But, when swallowing homeopathic preparations of these groups, we can see a strong dependence of GDV-gram parameters' changes (area, form coefficient, noise level) from the time of photographing. For example, the noise level, having

been fixed while taking energogram, in 10 minutes after the swallow is higher for the patients who have swallowed a mineral preparation (it increased on 16,9% (5R) from the initial), and it keeps the leadership by this parameter in 30 minutes (1R 38,8%). But in two hours noise level for these patients stays nearly the same (3L 25%), and it increases greatly for the patients having taken vegetable preparations (3L 60%) Energogram noise level for the patients having taken placebo keeps in time nearly the same (3L 11%). Thus, by our data, homeopathic preparations of different groups influence on electrophysiological processes in the organism, but the time of their maximum activity start is different: mineral preparations start their action immediately after the swallow, vegetable ones start working in some time, but their action lasts longer. Such indicator as radiance area is more influenced by vegetable preparations than by mineral or animal ones. But their action starts later than the action of mineral preparations.

In the process of our investigation we also tried to compare GDV-gram indicators of patients after different medical treatments, i.e. after blood ultraviolet radiation (9 people), becotid inhalation (25 people) and swallow of homeopathic preparations and homeopathic placebo. In this case homeopathic preparations were given both constitutional remedies - appropriate or inappropriate for a concrete patient - and drain remedies. When energogram taken after homeopathic preparation and placebo swallow, the noise level is unstable in time. For example, the noise level 2L in 10 minutes after the swallow is maximum in GDV-gram of the patients having taken the drain remedy (28, 48%). In 30 minutes and 2 hours the energogram shows the noise level increase for the patients having been given constitutional remedies. At the same time the energograms of the first group patients (with drain remedies) show the tendency to the noise level decrease. The received result can explain the principle of homeopathic preparations' prescription: the preparation used as a drain remedy is prescribed to be taken more often than the constitutional one. GDV-gram noise level for patients in placebo group decreases in 10 minutes and returns to the initial in 2 hours.

The highest radiance area is expressed by the energograms of the patients with correctly selected constitutional remedies. As we have noted, the maximum activity of the preparations is observed not in 10 minutes as it has been in the case with drain remedies, but only in 30 minutes (5L 24.7%) and lasts for 2 hours (5L 32%, 4L 25.2%).

When homeopathic preparations and blood ultraviolet radiation in 30 minutes after the therapy compared, the results were the following. The form coefficient increase is influenced by correctly selected constitutional remedies and ultraviolet radiation respectively - 1R - 11.8%. The noise level and radiance area are positively influenced only by correctly selected constitutional remedies (5L S=24,7% and 2R noise level=23,6%). Ultraviolet radiation does not exert truly influence on these parameters.

With GDV-gram we also had an opportunity to compare the efficiency of becotid inhalations with the efficiency of homeopathic preparations in 2 hours after their application. The results showed that constitutional homeopathic remedies and becotid have nearly the

same influence on the noise level, respectively - 2L 31.8% and 32.9%. But other energogram parameters (radiance area and form coefficient) are more influenced by correctly selected constitutional homeopathic remedies than becotid.

Thus, with GDV-gram data it was ascertained that when constitutional homeopathic remedies applied, it can be clearly seen the positive effect which differs truly from placebo action and which can be compared with becotid inhalation and blood ultraviolet radiation effects. It was revealed the positive influence of constitutional homeopathic remedies on all GDV-gram parameters. That proves the system approach in homeopathy treatment.

In conclusion it may be said that GDV-gram opens wide opportunities of homeopathic preparations' action studies. It is also prospective to use the method while selecting of homeopathic remedies for a certain patient.

Stages of the investigation.

Stage 1. Recording of GDV-gram of homeopathic preparation and (or) placebo

Stage 2. Recording of patient's fingers before the preparation swallow

Stage 3. Recording of patient's fingers in 10 minutes after the swallow

Stage 4. Recording of patient's fingers in 30 minutes after the swallow

Stage 5. Recording of patient's in 2 hours after the swallow

Stage 6. Processing of the received data.

Conclusions:

1. Homeopathic preparations of different groups influence on electrophysiological processes in the organism, but the time of their maximum activity start is various: mineral origin preparations start their effect immediately after the swallow vegetable origin preparations start their effect later but it lasts longer.

2. Homeopathic preparations, used as drain remedies, start their action immediately after the swallow, but their effect is shorter than the effect of constitutional preparations which start their action in 30 minutes after the swallow, and the peak of their activity is in 2 hours after the swallow. It explains the principle of homeopathic preparations' prescription: the preparation used as a drain remedy is prescribed to be taken more often than the constitutional one.

3. With GDV – gram data it was ascertained that when constitutional homeopathic remedies applied, it can be clearly seen the positive effect which differs truly from placebo action and which can be compared with becotid inhalation effect and blood ultraviolet radiation.

4. Positive influence of homeopathic remedies on all GDV-gram parameters proves the systemic character of homeopathic medical preparations' action.

5. Gas discharge visualisation can be recommended as a method to select homeopathic remedies for a certain patient and to supervise the efficiency of the conducted treatment.

GDV-GRAM AND BIOELECTRIC ACTIVITY OF BRAIN AND HEART

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Various methods of biopotential registration have been widely applied in medicine. They include conventional methods such as ECG, EEG, electromyography, studies of superslow biopotentials (omegometry), etc, as well as nonconventional ones, for example, Foll method, electropuncturography and others, based on eastern medical concepts. The latter can also include Kirlian radiation registration. Physical basis of Kirlian effect is a widely spread in nature and well studied corona radiance phenomenon, which appears around the object placed in the high intensity field. Possible ways of the method application in medicine have not been practically studied yet. On the grounds of the method's physical nature the basic factors influencing on the radiation character (hand fingers in particular) were selected. They are surveyed in the monography "From Kirlian effect to bioelectrography", edited by Dr.K.G.Korotkov. They are total body impedance, fingers' electroconductivity, gas discharge special features, skin humidity and others. This work was aimed to compare different bioelectric characteristics of organism. 40 bronchial asthma patients were tested. The leading part of atopic mechanism of pathogenesis was noted with 0.53 degree of probability, in the cases with nonatopic mechanism nearly equal frequency of aspirine triad (0.20), steroid (0.12) and infection (0.15) dependence were noted. ECG and GDV-gram were registrated for all the patients. EEG was registrated for 25 patients, 18 of them were tested in dynamics. The 2nd EEG type (presence of alpha-rhythm) - was noted in 14 cases, the 3rd type (slow delta-waves) - in 11 cases. It was revealed the true difference of GDV-gram parameters for patients with different EEG types. For example, patients with the 2nd EEG type were noted bigger radiation area, higher noise level, form coefficient, and which gives evidence that their biological processes are more active in general. It is known. that the 3rd EEG type can be mostly met at the patients with severe course of bronchial asthma. Decrease of noise level and and form coefficient are mostly met in the same case. Synchronity of EEG and GDV-gram changes can also be a reaction on medicamentous influence, but in this case EEG changes are more marked and certain. 18 atients were injected dexametason intravenously, and, according to encephalography data, the improvement 30 minutes after the injection was fixed in only one case. Others were noted depression of brain activity, in 2 cases the 2nd type transformed into the 3rd, i.e. alpha waves disappeared absolutely. By GDV-graphy data, true noise decrease (more than 10%) 1L was noted for 38% of patients, area decrease 1L - for 25%. The most marked negative dynamics after intravenous injection was revealed for the patients with the 2nd EEG type, for the patients with the 3rd type the dynamics was mostly varied and unreliable. It is known, that glyco-corticoids have mostly inhibiting effect on encephalogram parameters. It was also proved that the 3rd EEG type is rigid, i.e. it has weak reaction on different influences, for example on photostimulation. Hence, weak reaction of patients with

EEG 3rd type on glyco-corticoids' intravenous injection can be caused by large rigidity of their bioelectric processes in general. Correlation of different bioelectric characteristics of the organism can be also proved by correlation analysis of some GDV-gram and ECG parameters. For example, there were revealed the relations between GDV radiation area and the width of RR interval (negative sign), between noise level and PQ width (positive sign). The received result (including more marked GDV reaction on glyco-corticoids' intravenous injection for patients with preserved alpha activity of cerebrum brain) proves the presence of general mechanisms of energetic homeokinesis regulation, the essential part in it can be played by vegetative nervous system.

DIAGNOSTIC ABILITY OF MONOPOLAR GDV METHOD IN EVALUATION OF PATHOLOGIC PREGNANCY

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BACKGROUND: Electroacupuncture diagnostics uses phenomenon of “energy” balance detecting at cooperated points of acupuncture in normal subjects and, at the other hand, “energy” disbalance in case of pathology. Widely known Foll and Riodoraku methods uses the contact electrodes and have a distinct variability in parameters due to individual characteristics of skin resistance, electrolyte composition of sweat, electrode pressure on skin etc. Monopolar GDV method allows to evaluate “energy” parameters of acupuncture points (balance and disbalance) without contacting electrode with skin and free of these defects.

OBJECTIVE: Our purpose was to study monopolar GDV parameters of fingers in physiological course of pregnancy and it changes in case of complications appear.

METHODS: Ultrasound, doppler parameters and clinical data were used to define a threatened abortion and disturbances of utero-placental hemodynamics. Monopolar GDV method was used to get a pictures of GDV parameters to compare with diagnostic data of traditional methods. 21 women with threatened abortion at I-II trimester (group I), 14 women with utero-placental hemodynamic disturbances at II trimester (group II) and 13 control women at I-II trimester with physiological course of pregnancy were studied. Clinical data, ultrasound and doppler parameters were compared with monopolar GDV parameters – disbalance coefficient (DC) and asymmetry coefficient (AC).

RESULTS: All women in I and II group demonstrated ultrasonographic and doppler features of threatened abortion and hemodynamic disturbances in uterine arteries. There were no significant differences in DC and AC between two groups, but DC parameters at group II have demonstrated tendency to lower parameters. Our study revealed significant differences in DC parameters between control and two studied groups. Left DC (LDS) in controls was

0,23±0,24 ($p<0,05$), right DC (RDS) had the same value, in group I these parameters were 1,00±0,43 and 0,90±0,45 ($p<0,05$) respectively. In group of women with utero-placental hemodynamic disturbances but no symptoms of threatened abortion (group II) LDS was 0,79±0,55 and RDS was 0,86±0,40 ($p<0,05$). There were no significant differences in AC parameters between all studied groups.

CONCLUSION: There are evidence of serious “energy” disbalance at acupoints of fingers in case of pregnancy disturbances. Disbalance value may correlate with severity of complications of pregnancy.

CONCEPTUAL APPROACH TO THE ANALYSIS OF INDIVIDUAL AND COLLECTIVE ENERGO-INFORMATIONAL PROCESSES IN HUMAN DEVELOPMENT

K.G. Korotkov

Some years ago we offered idea that the main difference between humans as biological species and all other animal kingdom is the indivisible connection of individual and collective processes in the development and existence of every person [1]. It was proposed that this connection be governed by field structures organized on the fractal principle from the level of cells and organs to the level of society and political structures [2]. It is likely that representation of this structure on the level of individual organism is the system of chakras, acupuncture points and channels. These ideas may be presented in the form of diagram similar to the one developed by Ken Wilbert [3] (see the picture). We can distinguish Individual and Collective lines of development with a set of successive levels. The principle of hierarchy is as follows: any next level may exist only based on the previous levels, but for existence of lower levels upper levels are not necessary. So the health and prosperity of every person depend not on his individual features only, but to big extend on the collective behavior. This is not only psychological, but direct informational influence.

The difference between Wilbert’s approach and ours is the introduction of Collective Informational Structures, space-time interdependence of all four lines of development and idea about future development of Mankind mainly through the Collective levels. We do not believe in individual exterior (physical) development – human organism is very carefully designed system providing survival in a wide range of climatic conditions existing on the Earth. For billions years the physical status of humans has not changed. And in a very short historical time-span Collective Social and Informational status changed tremendously – from the level of cannibal groups to modern humanistic societies. And this development would come further: to the Planetary State having approach to the Centauric Informational Field via Individual Connections with Collective Mind provided by the Regulated Altered States of

Consciousness. Not physical hundreds years long space flights, but Spiritual Informational contacts and inter-Galaxies Connections – this is a future of Mankind. We will be members of Galaxy Union, but on the informational level.

1. Korotkov K. New conception of space fields of biological objects. Kongreß “Dialog mit dem Universum”. Düsseldorf, Okt. 1995.
2. Korotkov K., Kuznetsov A. Part III of the book “Light after Life” by K.Korotkov. NY 1998.
3. Ken Wilbert.

NEW PAIN AND ORGAN THERAPY (NPSO) ACCORDING TO RUDOLF SIENER

Isolde Siener, Elisabeth Weinberger

The German naturopath Rudolf Siener, who died in 1993, developed a new therapy based on Huneke's nerve blocking therapy and Vegatest diagnostic method. It was called NPSO (German, NPSO = Neue Punktuelle Schmerz- und Organtherapie) and proved to be highly effective as a pain and organ therapy as well as remarkably inexpensive.

NPSO is considered to be working on the level of energy and its effects are of an organotropic as well as psychotropic nature. It is making use of a new system of reflex areas. The exact points of treatment are found through measurements of the electrical resistance of the skin within these areas. The points of treatment are called MEP (German, MEP = Maximaler Energiepunkt) and show increased electrical resistance. They are situated on the extremities, distally from the centre of pain (German, SZ = Schmerzzentrum), and they are connected with it through a hypothetical energy line (German, EL = Energetische Linie). This means that pain is treated at a distance, not at the actual pain spot. Through manipulation of the relevant MEPs pain can be relieved immediately and, under certain circumstances, permanently. Once found, MEPs can be treated with a variety of techniques: injections of procaine or similar substances, irradiation with monochromatic red light, irradiation with soft laser light, puncture with acupuncture needle, electrostimulation, acupressure, or others.

Siener had noticed that the Huneke phenomenon took place less often than in the past as patients were increasingly suffering from regulative blockages. Through Vegatest diagnosis he determined dysfunctions caused by environmental toxins, allopathic drugs, vaccines, pesticides, geopathic stress and others. Before any NPSO treatment he initiated the removal of waste products and toxins from the patient's body to activate its power of self-regulation and make it responsive to energetic stimuli again. One noticeable side effect of this 'treatment before the treatment' was the disappearance of allergies.

How did this New Pain and Organ Therapy develop ? Siener had broken a metatarsal bone of his left foot as a teenager. With increasing age he was plagued by recurring lumboscatalgia on the left. Following Huneke's theory he considered this broken bone a focus and tested the electrical resistance of the skin above it. Spots with increased resistance he injected with procaine and immediately felt relief. From then on he treated patients with backaches very successfully from the feet. This approach worked even when no earlier injuries of the feet could be detected and he was looking for the system lying behind this phenomenon. One night he had a dream and saw a shoe turning around the hips of a person. He immediately understood that the outer part of the hips could be treated from the outer malleolus and the inner part of the hips from the inner malleolus. From these early beginnings he developed a whole system of somatotopes on feet and lower legs. He found the whole spinal column represented on the calves and he treated the shoulder girdle from hands and lower arms.

But where were the reflex zones for the head ? In 1991 Siener had another very vivid dream. He saw a very large knee beside a head. On the next morning he successfully treated his wife's chronic pain in the lower jaw from the knee and it never reoccurred.

NPSO has proved highly effective with pain of the locomotor system, for example lumbago, protrusions and slippages of intervertebral disks, some types of headache, epicondylitis. It is also helpful with arthritis or arthrosis, rheumatic pains, neuralgias, toothache, otitis and others.

In addition, NPSO is showing an increasing range of applications as an organotropic therapy. In particular, spastic and inflammatory processes respond well. NPSO has a beneficial effect on dysfunctions of organs and under certain circumstances even on proliferating processes. The organs of the head can be treated with NPSO, the respiratory tract, the digestive tract and the uro-genital tract. The treatment of the lymph via corresponding reflex zones takes a central role in NPSO and should be included in every therapeutic session.

The so-called trigonum, which is an equilateral triangle found at the medial side of the knees and corresponds to the control centres of the endocrine and vegetative systems, is a highly effective therapeutic tool. It has a beneficial influence for example on spastic cramps, dysfunctions of the hormonal system, sleep disorders, some types of depression and phobia. Increasingly patients are unresponsive to therapy because of toxic blockages in these higher control centres. Here the NPSO trigonum offers new possibilities.

Essential points of the NPSO system are:

- It is highly effective and quickly eliminates pain.
- It is universally applicable.
- It is without risk for patient and therapist if applied lege artis.
- It is easy to learn for the therapist.
- When monochromatic light or laser is used, it is painfree for the patient, but sometimes injections cannot be avoided.
- It is inexpensive.
- It can be combined with most naturopathic therapies.

NPSO is a new therapy. The range of applications of this method is still increasing with experience. We know that we can reach any point on or in the body from distally located reflex zones. At the moment research is underway on the effect of NPSO treatment with monochromatic light on the brain centres.

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INVESTIGATION OF REINCARNATION AND PROSCOPY WITHIN THE PROCESS OF INTRODUCING INTO THE MSC BY THE METHOD OF E.I. ZUEV.

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According to the theory of V.I. Vernadsky, from the informational point of view all the living substances represent a unified system, in which all the elements are interacting with one another. This fact is proved by the works of D.Ch. Bos, V.P. Kaznacheev, K. Bakster, V.N. Pushkin, etc. (1).

Emergence of people and animals, possessing their own informational apparatus and modulating the environment, in the course of evolution apparently led to their isolating and subjective breaking of global informational connections with the world (1). Human vegetative system and human somatic cells are constantly influenced by the effects of a telepathic kind. However, usually these effects do not reach the cerebral cortex and thus a person does not become aware of them subjectively (1).

Common people have a barrier between the cerebral cortex and cerebral cells which are able to receive and transmit telepathic and other effects. Only a very rare category of people called the extrasensory individuals have this barrier lowered or missing at all. Nevertheless using the hypnosis and other special methods it became possible to introduce the common people into the modified state of consciousness (MSC) (1,2). Thus, the instructor, carrying out the reincarnation of a patient by the method of E.I. Zuev and not possessing any extrasensory skills, recalls from the patient's consciousness both the visions of the past from his own life and the visions not referring to his life. In yoga theory and in other esoteric theories this fact is interpreted as the visions from the former lives of that patient.

In our investigations the instructor introduced the patients into MSC according to the method of E.I. Zuev, whereupon he helped them to recall the visions of the past and, by consent of the patient, the visions of future and, remaining in the present, the visions of the other area of space (other room). We had been trying to find and develop skills of the patient, introduced into the MSC, to proscopy and clairvoyance. Moreover, one of the patients mentioned that she had had both visions of past and future the same clear, and the easiness of the

visions' recalling and "travelling" over the past and future had been the same. In other words, she noted the identity of subjective feelings having visions of past and future. This fact gives an opportunity to presume that there exist similar physical and other mechanisms of these phenomena. In addition, since the future can be easily checked, by the content of the future visions some conclusions may be drawn concerning the mechanism and content of the visions of past, and vice versa. The experiments with six patients participating enabled to catch the visions of four of them, and of these four one patient had his visions unclear and low-informative.

The tests on clairvoyance did not give any positive results.

Several series of experiments were implemented on the prospection of two varieties: prospection of some days and weeks ahead and an attempt to discern the numbers which would be put on the sofa right on completion of the experiment. The reality coincided with the prognosis in two cases, which enables to assume (but it does not prove) the presence of elements of prospection against the hallucinations. The tests carried out bring us to suppose that the part of hallucinations in the visions of "former life" is significant, as well. This is also indicated by the presence of the so-called directed hallucinations when the content of visions changes quasi obeying the instructor's command.

The experiments of "travelling to the past" demonstrated that the patient fixes the moments of birth and death in the "former lives" most clearly. In this connection we propose our method for serious statistic tests in the bad seismic regions, such as the Kuril Islands, Armenia and Japan. It will possibly open an opportunity for predicting the most destructive natural disasters. Its peculiarity lies in the fact that neither the instructor nor the patients are considered to be the extrasensory individuals. The instructors may be taken from the local population.

Literature:

- 1) A.P. Dubrov, V.N. Pushkin "Parapsychology and modern natural science" M., Sovaminko, 1990.
- 2) Bogomislov, Ivanov, "Retrospection – the way to the past". Parapsychology and psychophysics, 1992.

GDV DATA CONVERSION AND COMPRESSION ON THE BASIS OF ANALYSIS OF FRACTAL DYNAMICS

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Five type classes of GDV images of the fingers (BEO-grams), received with the help of the computer GDV complex, are investigated. Data transformation and compression are carried out using the unique technique and software complex, developed under the supervision of Professor R.I. Polonnikov and adapted to solve the given problem by the authors of this work together.

The authors jointly implement data preparation and structuring. The data – the quantized BEO-grams of fingers containing information on the dynamics of fractals, which describe separate parts of the image – go through the following stages of processing:

1. Preliminary preparation and structuring, as a result of which two matrixes of numbers sized 1024×8 are formed of each image; one of these matrixes – F1 – bears the information about brightness of the respective pels of the image, and the other one – F2 – about the length of a certain radius vector, by means of which geometric position of a pel is described;
2. Mathematical transformation of matrixes F1 and F2, which is carried out according to the next steps:
 - Transformation of the initial 1024×8 matrix into eight matrixes sized 128×8 each;
 - Fourier transformation of columns of these eight matrixes and determination of the respective power spectrums;
 - Construction of the mathematical model for each power spectrum enveloping it in terms of:

$$M(n) = k \cdot n^{-\beta},$$

where n is a number of harmonic in the power spectrum,

- Estimation of the model's parameters k, β by accomplishing the task of curvilinear regression. Thus, two 8×8 sized matrixes of numbers are determined:

$$K = \begin{bmatrix} k_{11} & k_{12} & \dots & k_{18} \\ \dots & \dots & \dots & \dots \\ k_{81} & k_{82} & \dots & k_{88} \end{bmatrix}, \quad \beta = \begin{bmatrix} \beta_{11} & \beta_{12} & \dots & \beta_{18} \\ \dots & \dots & \dots & \dots \\ \beta_{81} & \beta_{82} & \dots & \beta_{88} \end{bmatrix},$$

- For each matrix K and β singular decompositions are assessed and maximum singular figures SN_k, SN_β are got; in addition, average and normalized standard deviation are determined for each of these matrixes.

Thus, as a result of these conversions each of the initial matrixes changes to the six figures: $SN_k, k_{cp}, \sigma_k / k_{cp}, SN_\beta, \beta_{cp}, \sigma_\beta / \beta_{cp}$. This means that essential data compression has taken place. It is worth mentioning that the figures given possess a number of good features: antijamming capability, robustness, recognizability, which were successfully used for solving the problem of recognition of the images of five classes mentioned above (probability of a proper recognition of class from 55 objects on the learning sample $\sim 90\%$).

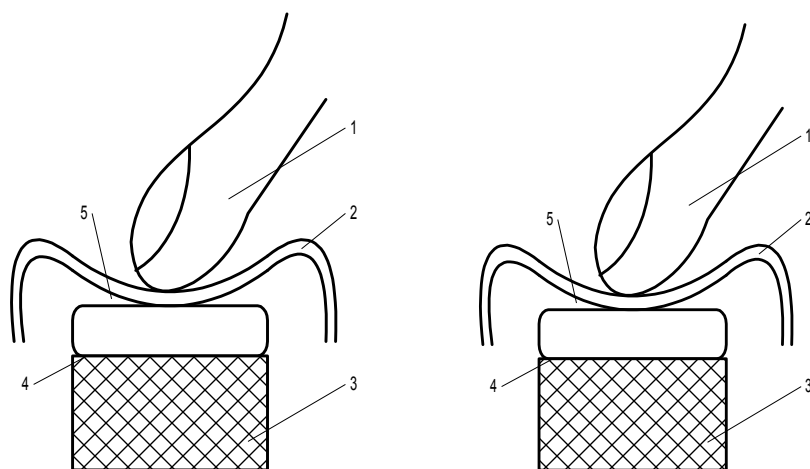
For accomplishing the task of recognition the classical procedures of discriminant analysis, in which the six stated above figures were the initial variables, were applied. It is interesting to stress that owing to that comparatively complex and extensional preliminary (i.e. preceding the accomplishment of the recognition task) processing of BEO-grams, the very task of recognition, adding quite a good result reliability, was managed to be accomplished by rather an easy method, which refers to the discriminant analysis. This fact gives an opportunity to hope that the method suggested will be widely practiced in solving such problems. Furthermore, considerable data compression provided by the method makes it suitable for usage in telemedicine. Indeed, through the communication channels instead of graphic images of BEO-grams only six figures corresponding to these can be transmitted.

KIRLIANOGRAPHY RESEARCH IN BRASIL

K. Korotkov

In April 1999 in a Brazilian town Curitiba, the IV Brazilian Congress on Kirlianography, for which I was honored with making a review lecture on GDV methods and results, was held.

Brasil is a fascinating and picturesque country with beautiful rivers, waterfalls, sandy beaches and, what is more, with cheerful, kindhearted and sympathetic people. The Brazilians smile to each other on the streets, solve all their problems joking, have breakfast at 5 o'clock in the morning after a night dancing samba and lambada. They do not drink a lot, comparatively, and mainly prefer water and wonderful Brazilian coffee; only twice I noticed the drunk. And at that, even the cars consume the drinking alcohol rather than a more expensive gasoline! And the Brazilian restaurants! This is a particular poem!

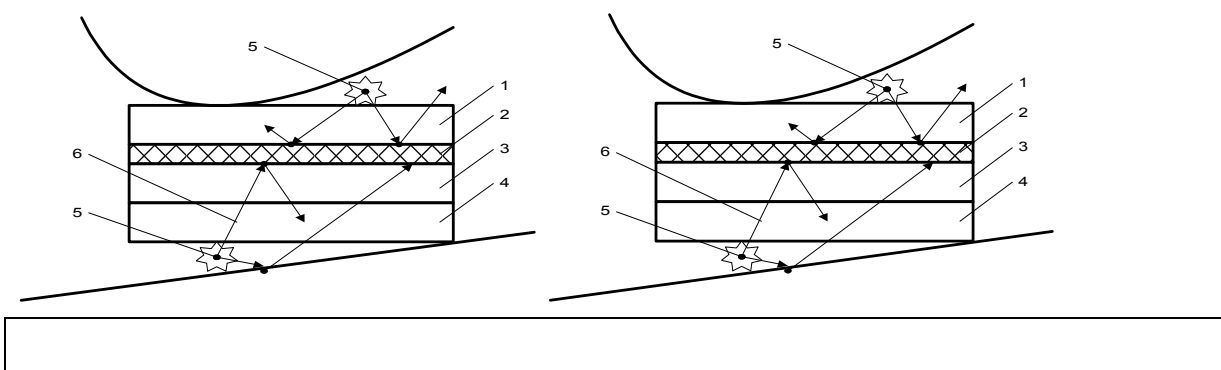


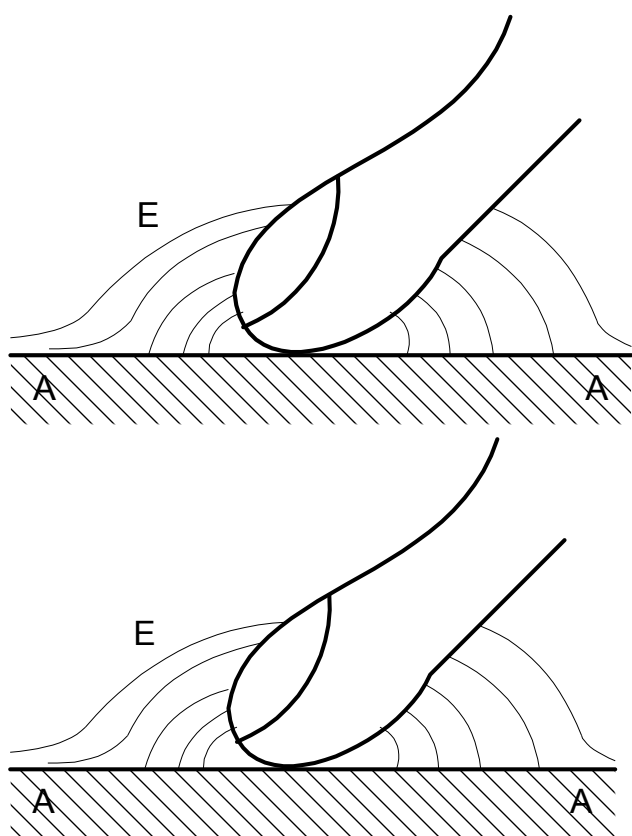
Naturally, Brasil, as any other country, faces its problems. One of these is the problem of health, although the abundance of sun, fruit and the ideal figures of Brazilian women

somehow reduce the urgency of this problem. Amongst the methods of investigation the state of health Kirlianography occupies an honorary place. Thousands of experts successfully take advantage of Kirlian photography for the diagnostics and analysis! And all that is due to one person, Prof. Newton Milhomens, who created his own unique approach and original diagnostic system. Prof. Milhomens photographs the kirlianograms of fingers using a colour photographic film and applying an ordinary generator of the simplest configuration. At that the imprints amaze with plenty of colours □ red, orange, yellow, green, cyan, blue □ all colours of the spectrum! And in Prof. Newton's system each colour has a special diagnostic value [1]. Where does such an abundance of colour originates from? Why these results are not proven by the other Kirlian cameras? The detail study of Prof. Milhomens's standard has given us an opportunity to answer this intriguing question.

Figure 1 displays the layout of Prof. Milhomens's camera. A patient places finger 1 on the photographic film 2 and presses, crushing a soft layer 3. The operator pushes the button, applying voltage to the electrode 4, the exposition continues for 4 seconds.

With the help of the refined experiments W. Picler disclosed that a discharge appears both on the surface of finger and on the backside of the photo-film in the aerial cavities 5. Figure 2 demonstrates the photo-film structure. On the top of the emulsion is the blue colour-sensitive layer 1. Light quanta from the discharge 5 penetrate this layer and create photo-image. Filter 2 prevents all rays below 500 nm from reaching bottom layer 3, sensitive to red light. It is shown that the spectrum of Kirlian fluorescence mainly consists of lines of the second positive system of nitrogen and oxygen, i.e. of the blue-cyan part of the spectrum [2,3]. Therefore, the red colour appears rarely on the ordinary Kirlian photographs. If the photo-film is tightly pressed to the electrode in Prof. Milhomens's camera, only blue-cyan colours are left. However, if a discharge 5 passes from the backside of the photo-film, the photons, either straight or reflected from the backing, fall on the "red" photo-sensitive layer 3. A lot of these photons absorbed by antihalation layer 4, so for producing significant density of "red" photo-layer at minor signal strength one need large overexposure - four seconds in Prof. Milhomens's camera. Under the decrease of exposition the colours disappear. Thus, there are no red photons in the Prof. Milhomens's camera □ the red colour is exposed by the blue-cyan photons.





How do the colours correspond to a patient's state? The photo-film layer cuts all electron and ion emission processes from the skin surface, therefore at the backside only the photon component remains. Figure 3 schematically shows the situation of electric field distribution in the system. From this scheme it is obvious that the presence of a finger leads to the formation of the specific field situation or, in other words, of the field intensity distribution in each place of surface AA, depending upon electro-physical characteristics of the finger. In each place discharge intensity is depended on the field intensity and, consequently, depends on the finger characteristics and, hence, on the health and psychic state of the patient. By means of long empirical investigation Prof. Milhomens discovered correlation between the colours and geometrical shapes on the photographs and the diseases.

The fact that Milhomens's cameras are widely used in Brasil is the evidence of the method's importance. It was published some papers confirming diagnostic value of this technique [4,5,6]. It is a desire to believe in the diagnostic significance of Prof. Milhomens system.

The camera's construction may be improved. The colours depend upon the level of pressure of a finger, which is by no means controlled. In addition, this level changes in the process of exposition, as it is physically impossible to keep the constant heavy pressure during four seconds. Unsteady compression of the soft layer 3 (fig.1) results in the change of aerial openings under the photo-film. Besides that we can name the instability of an ordinary Kirlian generator and the common moments for all the Kirlian techniques: the necessity of a dark camera, long period of photo-processing, lack of the quantitative data processing. At the

same time the empirical findings of Prof. Milhomens are worthy of the rapt attention and his technique will take an honorary place in the history of Kirlian photography.

Prof. Milhomens's experience may turn out to be priceless. At the present moment Prof. Milhomens together with Doctor Roberto Cesar Leite, an outstanding physician and the Director of the Centro De Medicina Integrada, participates in the introduction of the GDV technique in Brasil. Within many years Dr. R. Leite has been developing alternative approaches to the treatment of cancer and has achieved great success in this area.

24, 25, 26 November 2000 International Unit for Medical and Applied Bioelectrography will have the Fifth Official World Conference "Kirlionics 2000" in Curitiba, Brasil.

References

1. Milhomens N. Fotos Kirlian Como Interpretar. Ibrasa. Sao Paolo. 1997.
2. Korotkov K. Aura and Consciousness. Kultura. St.Petersburg. 1999.
3. Picler W. This collection of papers.
4. Hélio Grott Filho. Oncological kirliangraphical diagnosis. "Revista do Hospital das Forças Armadas". Dec. 1987
5. Coutinho R.E. Contribution for the study of the kirliangraphic alterations in the sport activity (dissertation of mastery). Federal University of Rio de Janeiro. 1989
6. Auri Silveira da Silva. Photo Kirlian, a new tool of safety's engineering: reality or fiction? Federal University of Santa Catarina. 1987.

PROSPECTIVES OF USING THE GAS DISCHARGE VISUALISATION TECHNIQUE IN THE PROCESS OF PREPARATION OF ELITE ATHLETES

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THE AIM OF THE STUDY

The management and self-management of the process of preparation in sport is actual for all periods of training session during the athletes' sporting life. The search of new concepts, theoretical and practical approaches in preparation of athletes can give rise to the development of sport science and subsequent rise of sport results with preserving athletes' health and well being. In developing this approach we need to take into account the following moments in athlete's preparation:

- Psychological description of general and specific conditions of sports activity;

- Integral characteristic of motor sports skills and habits accentuating the problem of realizing – non-realizing the motions at various stages of habit formation;
- Conception of the polifunctionality – polimodality of the notion of movements and ideomotor training;
- Conception of the athletes methodical and psychological preparation for competitions with special attention to the pre-start states; marking out the dome signs of readiness for the performance taking into account all methodical and psychological preparation, as well as the stages of preparation for the fulfillment of the particular sporting action;
- Program of mental training for each athlete.

The problem of elaborating the dynamic control of athletes' state under the conditions of training process and competitive activity is extremely urgent. Such methods should meet the complex of conditions:

- Non-disturbing character of the process of measurement;
- Dynamic control in real time;
- Methodical simplicity;
- Automated analysis of data with formation of significant conclusions;
- Prognostic value;
- Objectivity and independence on the skill of operator;
- Convenience of keeping a big data-bases;
- Possibility of working at the training and competition facilities.

In other words a method should be available for any coach or athlete being simple in work, reliable and with automated processing of data.

EXPERIMENTAL APPROACH

The method of Gas Discharge Visualisation (GDV) pretends to the role of such a method because in many respects it satisfies the mentioned above demands; it is also becoming well adopted in medico-biological practice.

In a long-term study with hundreds of athletes of different levels involved it was revealed a great informative significance of the GDV method by the registration of athletes' energy-informative state and the presence of particular signs in GDV BEO-grams that distinguish top-class athletes. These signs are manifested especially evidently in the process of mental modeling of a competitive readiness by athletes. The findings confirm the hypothesis about athletes' transition to Altered State of Consciousness (ASC) by the realization of the state of competitive readiness.

Based of this data we are developing quantitative approach to the methods of top athletes' selection and preparation. The task of the control of the methods of top athletes' relaxation in the post-competitive period and other rehabilitation after the end of sporting career is of great significance, as well. From the point of view of the developing hypothesis the last task consists in teaching an athlete an active transition to ASC and passing on to an ordinary state which is typical of a practically healthy person under the conditions of calm vigilance.

EXAMPLE OF THE BEO-GRAMS' ANALYSIS

There were carried out some measurements of the state of Alexander Karelin at rest and in the process of mental modeling of competitive activity by means of the GDV Camera. Karelin A. is a thrice-repeated Olympic champion, eight-fold world champion, and ten-fold European champion. The results obtained may be interpreted in the following way.

The initial state is characterized by powerful, clearly constructed BEO-grams, well manifested for all the fingers (organism systems). The intensity of BEO-grams of the 2nd-5th fingers exceeds the average statistic intensity for a relatively healthy person in the waking state. It testifies to a high-energy status of organism and the activity of all physiological systems. The symmetry of right-left on all the fingers except 1L, 1R and 4R testifies to the lack of strikingly manifested asymmetry of cerebral hemispheres activity at rest that's to a balanced and steady nervous-psychical constitution. At the same time a relative blocking of 1L, 1R testifies to the permanent energy block which can be interpreted as the state of light nervous excitation; the asymmetric type 4R with the ejection testifies to a relative suppression of the processes of left hemisphere by the activity of right one. Thus, the cited BEO-grams at rest are typical of a physically healthy and active person, extrovert, with an intuitive attitude to life, in the state of relative excitation at the moment of the investigation.

By a mental modeling of competitive state a sharp asymmetry of the BEO-grams of the 2nd, 3rd and 4th fingers with an increase of activity of the 1st finger is observed. On the Aura BEO-gram the state is characterized by the blocking of body right side activity. It could be interpreted as a blocking of control from the part of left cerebral hemisphere with a heightened activity of right hemisphere, which is typical of the prevailing of subcortical activity, by the suppression of conscious activity with a sharp activation of general brain activity.

Apparently the observed changes appear to be a characteristic of subject's transition to the state of "readiness for the activity" which requires a heightened activity of subcortical processes as regards the conscious control of activity. We think that it would be advisable to speak about athlete's transition to the ASC with an appropriate reconstruction of psycho-physiological and energy processes.

CONCLUSION

Carried out investigation for a big group of athletes of different sport levels by using a complex set of methods demonstrated good prospective for the GDV technique applications in sport. This technique seems to be easy in use, inexpensive, with clear computer interpretation of the results and high level of informativeness regarding different states of sportsmen's psycho-emotional and physical conditions. This creates positive basis for the current applications of the GDV technique in sport medicine together with perspectives of developing useful and simple in use high-technology instrument for coaches and sportsmen.

SOME OF VISIBLE AND INVISIBLE MANIFESTATIONS OF PHYSICAL EFFECTS OF UNKNOWN NATURE

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In this report are presented different phenomena observed mainly by the author which are not explainable on the basis of customary conceptions and often contradict the known physical laws. The existing control devices apparently can't else "sense" some extraordinary thin radiations.

1. Invisible for common sight manifestations of flows of energy of unknown nature: in the shape of a light cupola or vertical column during spiritual circles (the people join hands and appeal to the God and the out-side world with love) in St-Petersburg or other towns;
malfunction of electronic instruments (tape recorders, dosimeters) and everyday devices in presence of such effects.
2. Manifestations visible with the unaided eye: imprints on a candle during spiritual circles, appearance of signs (for example a cross in a circle) on a hand and in the sky; atmospheric optics spiritual manifestations.
3. The influence of the prayer on different phenomena including a therapeutic effect of musical version of the prayer, on the level radiation of food, on the sight restoration after brief loss of it.
4. The "time compression" effect (the clock arrows stopped at the beginning of some action; after that they are moving rapidly in order to make up for lost time) and "the unsinged bush" effect (all books of the one pile burned out during fire besides volumes of "The Last Testament").
5. The interaction with the Nature:
 - the flower is reviving thanks to the love flow to him,
 - the bird was outraged of insensitive attitude to the woman as a part of the Nature,
 - the picture of "the Vissarion Stone"(the Stone-Heart in the taiga) influences on the human.
6. The extraordinary near Vissarion:
 - numerous optical phenomena (the aura manifestation on pictures, different marks and signs,
 - unpremeditated wonderful healing during the dealings with Vissarion – famous spiritual leader of the Russia,
 - “the bread multiplication” effect,
 - influence on the element (hurricanes, spring floods, weather),
 - about the future predictions: "Don't go to foretellers". It is risky step, because you can involuntarily contribute to creation of forecasted dangerous situation. It is opportunely here to remember words of the most authoritative prognosticator of XX century E.Keisy about

that the ancient Egyptian predictions stop of 1998 year, because then the Messiah determines the events course and all predictions lose power and need correction.

7. The explanation of some external power influences is given in the book "The Last Hope. The Appeal to Modern Mankind" (St-Petersburg, 1999).

There are here answers on questions:

- What is the human being in general?
- What is the surrounding him World?
- Why the fates of the Russia and the mankind reached the critical point?
- Is there the hope on the Saving?

EFFECT OF ONE CIGARETTE SMOKING ON GDV-GRAM OF HEALTHY PEOPLE AND PATIENTS WITH CHRONIC OBSTRUCTIVE DISEASE OF LUNGS

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The investigation was aimed to study GDV-gram's changes after smoking. The investigation was conducted with "Crown-TV" instrument, GDV-graphy of 10 hand fingers was carried out before, 5 minutes after and 30 minutes after smoking of one cigarette for 10 healthy people without clinic symptoms of lungs diseases, for 5 patients with bronchial asthma (BA) and for 5 patients with chronic obstructive bronchitis (COB). The tested group were people of 20-35 years old, who had not smoked for an hour or more before the test.

Smoking of one cigarette was accompanied by GDV-gram changes in all three tested groups. In 5 minutes after smoking the noise level increased for healthy people, i.e metabolism activation was caused by smoking. At the same time the noise level change for patients with bronchial asthma and chronic obstructive bronchitis was unreliable (uncertain). In 30 minutes after smoking a cigarette healthy people kept a high noise level, and it decreased severely for patients with bronchial asthma. The changes of form coefficient and GDV-gram area were rather interesting. In 5 minutes after smoking the area decrease was noted in the group of BA patients (11.2% rise from the initial value), but in the group of COB patients its true increase could be seen (11.5% rise). For the group of healthy people the changes were uncertain. GDV-gram form coefficient had analogical changes: in 5 minutes after smoking a cigarette the decrease of form coefficient could be noted for BA patients (-18.8%) with subsequent gradual 30 minute return to the state close to initial (-11.3% from the initial level), for COB patients the indicator increased sharply in 5 minutes after smoking (for 36.8%) and the high level stayed the same in 30 minutes.

Thus, smoking of a cigarette influences more on GDV-gram of COB patients than on GDV-gram of healthy people, COB patients were noted increase of form coefficient and

GDV-gram area after smoking, but the majority of BA patients were noted the decrease of these indicators.

GDV-gram analysis of the smoking experience influence was conducted. Two groups of tested people were compared: having smoked 3-5 cigarettes a day for less than 5 years (12 people) and having smoked 10-15 cigarettes a day for more than 5 years (8 people). The results of the test showed that the initial indicators of hand fingers GDV-gram (area and noise level in particular) for long-smokers was lower than for those having smoked for less than 5 years. In 5 minutes after smoking the GDV-gram area for people having smoked for more than 5 years increased on 19.1%. At the same time the area for short-smokers truly decreased on 11.3%. Noise level change for long-smokers was inessential, in the group of short-smokers noise level truly increased for 4 people (0.33), decreased for 4 people (0.33), other changes did not exceed 10% change from the initial value. In 30 minutes after smoking a cigarette the increase of GDV-gram area in the group of long-smokers stayed significantly high, the decrease lasted in the group of short-smokers.

Thus, the tests demonstrated that:

1. Smoking of a cigarette causes more essential GDV-gram change than non-smoking.
2. Smoking causes increase of such indicators as coefficient of form and area of GDV-gram for patients with chronic obstructive bronchitis, while the same indicators decrease for patients with bronchial asthma. These differences in GDV-gram changes of BA and COB patients after smoking might be caused by metabolism specific features and variants of cells' reaction on external influences, determined genetically.
3. People having smoked for a long time have lower indicators' values than those having smoked for less than 5 years.
4. Smoking of one cigarette brings to increase of GDV-gram area for long-smokers, the indicators decrease for people having smoked for less than 5 years.

It is known that tobacco smoking brings to changes in structure as well as in functions of lungs, it plays essential part in bronchus inflammation pathogenesis. Smoking causes disbalance of proteolytic and antiproteolytic functions of lungs, promotes development of parenchyma destruction, pneumofibrosis, hyperactivity of bronchus and respiratory paths obstruction. Hence, long smoking brings to essential changes in respiratory system as well as in the organism in general, and that might cause GDV-gram changes' peculiarities.

GDV-GRAM FOR VALUATION OF SOME MEDICAMENTOUS MEANS' ACTION MECHANISM IN THE CASES WITH BRONCHIAL ASTHMA PATIENTS

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The object of the following work is to evaluate influence of some medicamentous means (berotec, becotid, dexametason) on some bioelectrical parameters of the organism. With this object in view Gas Discharge Visualisation method (GDV) based on Kirlian effect was used. The statistical analysis was carried out by means of "OMIS" software complex ("Intellectual systems" firm). GDV-graphy of 10 hand fingers was conducted twice - before the impact, 2 hours after becotid inhalation (25 people), 30 minutes after dexametason infusion (18 people), and 15 minutes after berotec inhalation (26 people). In parallel with GDV method the study of external breathing function (EBF) was conducted on the "Pneumascreen" apparatus. 69 bronchial asthma patients were checked (28 men and 41 woman), their age varied from 18 to 76 years old, duration of a disease varied from 1 to 37 years. The majority (0.67) patients had atopic variant of the disease. The patients with nonatopic bronchial asthma were observed approximately equal number of aspirine, infectious and hormone dependent cases.

While berotec and becotid influences were compared it was revealed that the positive dynamics of GDV-gram indicators were clearer after becotid inhalation. Glyco-corticoids inhalation mostly caused true (more then 10%) rise of the form coefficient (1L for 0.41, 5R for 0.48 patients). After berotec inhalation these changes were observed more seldom. (1L for 0.007, 5R for 0.19).

At the same time true failing of the GDV-gram indicators was observed more after berotec then becotid inhalation. Berotec inhalation caused decrease of the form coefficient 3R for 0.56, 1L for 0.36, noise 5L for 0.18 and noise 3L for 0.48 patients. In becotid inhalation respectively for 0.26, 0.19, 0.04 and 0.28 patients.

If GDV-changes after glyco-corticoids' inhalation and their intravenous injection to be compared, the most common advance of GDV-gram parameters (increase of the noise level, the form coefficient for outline indentation characterising, and fractal deflection) was observed after glyco-corticoids' inhalation. Thus, 0.41 patient of the group were revealed true (more then 10%) noise level 1L increase, 0.41 - form coefficient 2R increase, 0.37- 3L, 0.48 - 3R. At the same time intravenous injection of glyco-corticoids increased noise 1L for 0.05 patients, and form coefficient respectively for 0.1, 0.1 and 0.2. Glyco-corticoids' inhalation caused the increase of GDV-gram area considerably more often then their intravenous injection (2R for 0.39 patients, 2L for 0.37, 5R – for 0.44, and for intravenous injection respectively for 0.1, 0.1 and 0.15) At the same time true failing of GDV-gram indicators after glyco-corticoids' intravenous injection was observed more often then after inhalation. Thus, noise 1L decreased respectively for 0.38 and 0.15 patients, area 1L - for 0.25 and 0.4. ...eosinophils' number in

sputum shows the level of inflammatory process in bronchus, and it, in its turn, can reflect on efficiency of berotec and becotid application. GDV-gram form coefficient 3R, 4R and 1R change was studied in two groups of patients taking beta-adrenamimetics - with small and moderate eosinophilia. Patients with small eosinophilia were observed true increase of the form coefficients, on average on 23%, 27% and 27% respectively. In the cases with moderate eosinophilia the true decrease of the form coefficients were observed. (34%, 28%, 21% respectively). In the groups of patients taking becotid the true noise increase 1R, 4R and 3L was also revealed (on average on 22%, 18% and 14%) in the cases with small eosinophilia, and the true decrease - in the cases with moderate eosinophilia (-15%, -4%, -9% respectively). Thus, with small eosinophilia, a single use of berotec and becotid brings to GDV-gram parameters' improvement more often. That can be due to the fact that regulation disturbances in general (including electrophysiological processes with weak activity of eosinophilic inflammation) are more reversible. According to the average data, it was not revealed any convincing positive correlation between the dynamics of GDV parameters and EBF after berotec and becotid inhalation of the tested patients. This link might be nonlinear. The received data let us make the following conclusions:

1. It is revealed the essential difference in the influences of berotec and becotid inhalation and dexametazon infusion on electrophysiological processes for bronchial asthma patients.
2. The most positive impact on GDV-gram's parameters of tested patients was made by becotid inhalation.
3. Glyco-corticoids' intravenous injection often influences inhibively on energetical homeokinesis.
4. With small eosinophilia a single use of berotec and becotid brings to GDV-gram parameters' improvement.

PSYCHOLOGICAL STATE DYNAMICS AND GDV-ANALYSIS FOR BRONCHIAL ASTHMA PATIENTS

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Medical treatment practice traditionally has a mostly general approach to patient's state evaluation. Together with somatic pathology character the personal features of the patient and his attitude to the illness are taken into account. The idea of psychosomatic equality is at present time considered from the position of general approach, where constitutional characteristics of the organism, trophic and regulating links, particulars of organism's interaction with environment are taken into account.

Bronchial asthma (BA) is one of the illnesses which etiology demonstrates a close interaction of somatic and neuropsychic factors. Literature gives us personal psychological features of BA patients. Psychological factors often have such an essential influence on course of a disease that a special BA pathogenic – neuro-psychic - variant is emphasized in such cases. In order to understand particulars of psychic and somatic correlation in course of the disease it is very important to define the meanings of personal topology. These studies are aimed to define the correlation between psychological status' dynamics and GDV-gram changes for BA patients during the process of treatment. Psychological status was studied by the following methods: first of all by Spilberg-Khanin scale of self-certification. Anxiousity level was defined by the scale. A high level of situational anxiousity was caused by temporary unfavourable conditions, stress situation. A very high personal anxiousity can specify the presence of neurotic conflict and proves the risk of psychosomatic disease development. It was also used the standardized 8-colour variant of Lusher colour test. The method is nonverbal, deep psychological mechanisms on the level of limbico-hypothalamic system are analysed with it.

GDV analysis of 10 hand fingers was conducted on "Crown-TV" instrument with additional software set, in standard conditions.

18 BA patients of 18-48 years old were tested. The patients could be divided by the following: 7 patients had mostly atopic pathogenic BA variant, 8 - infection dependent, 2 - hormone dependent, and 1 - aspirine BA. According to the form of the disease they were: 5 patients with mild form, 12 – with medium, and 1 - with severe form. The patients were tested at the beginning of admission and on the 20th day of the therapy.

Initially the majority of the patients had a low activity factor (AF) - 78% of the patients, and work capacity factor (WC) - 69%, and greatly increased level of anxiousity, mostly situational (82%). These patients were characterised by emotional tensity, petulance, feeling of dissatisfaction, search of support, i.e. their state could be characterised as prestress, with negative emotions dominance. GDV-grams were visually valuated as defective, with many areas of picture's drop-out, not coordinated local outbursts. While machine processing of the picture it was characterised by small area, low noise level and form coefficient. During the recurring test a positive dynamics of psychological indicators was revealed: AF increased truly for 56% of the patients, WC – for 63%, with anxiousity (mostly situational) level decrease for 67% of the patients. Psychological status dynamics correlated truly with GDV-gram changes ($p < 0.05$). WC rise was accompanied by GDV-gram area rise in the zones, corresponding neuro-endocrine system (4L). WC increase and anxiousity level decrease correlated with noise level and form coefficient increase in the zones of respiratory system and system of large intestine channel which is matching to lungs (2R, 5R).

Thus, the investigation revealed positive changes in psychological status of BA patients after the therapy. Positive emotional state is very important for optimum functioning of organism as a system, as it is a form of organism's adaptative reaction. That is why psychological state improvement together with positive changes of GDV-gram character

testify not only clinic improvement but also energoinformational harmonisation of BA patients in the course of treatment. Successful therapy plays essential part in improvement of patients 'organisms' bioenergetical parameters, their functional and, in particular, psychological status.

Conclusions:

1. During the therapy the improvement of psychological status of BA patients was observed.
2. The improvement of psychological status was accompanied by positive GDV-gram changes.
3. True positive changes were observed mostly in zones, corresponding neuro-endocrine, respiratory systems and the system of large intestine which, according to eastern concept, is linked with respiratory system. (2R, 4L, 5R).
4. Positive dynamics of GDV-gram, which was observed after the therapy, testifies normalisation of processes of energetic homeokinesis regulation.

BIOENERGETICS OF WOMEN IN VARIOUS PERIODS OF PREGNANCY (PILOT STUDY)

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The purpose of this investigation is the assessment of energetic status of the women's organism in various periods of pregnancy.

Fetation may be considered as a typical example of dissipative structure in which the fetal egg is a developing subsystem. Entropy is progressively decreasing in the subsystem-embryo at the expense of the mother organism, where structural and functional reforming starts at the very moment of conceiving. The changes providing self-organization and development of the subsystem must firstly become apparent on the energetic level.

With the help of GDV-equipment (“Crown-TV”) an examination of 50 expectant mothers living in Georgia was carried out. According to the latest data, 75-80 % of the women's of Georgia is observed to have hypothyrosis. Against the background of the initial endocrine abnormality the energetic shifts during pregnancy may sharply worsen the hypofunction of thyroid gland and, thus, do an irremediable harm to the foetus.

We found out that 48 out of 50 examined expectant mothers, along with the other typical of this state changes, have a considerably increased fluorescence area and factuality zone which corresponds to a thyroid gland, together with the development of aggressive outbreaks occurs. Stronger activity of the right cerebral hemisphere in comparison with the left one and the asymmetry of biofield were also observed.

Further examination of the expectant mothers is planned, using GDV and USD for the detection of characteristic features of the energetic shifts and their dependence both on gestational age, disposition and condition of the foetus and placenta and on the mother's initial endocrine background. In case of obtaining a statistically reliable correlation, the method of GDV may be recommended for a safe and handy crining-examination of the expectant mothers, which will assist in a timely correcting the disbalancement and, thus, in preserving health of the mother and her baby.



APPLICATION OF GAS DISCHARGE VISUALISATION METHOD IN PLANT BREEDING

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Still in plant breeding there are no parameters by which it is possible to select the best hybrids with sufficient probability right after crosses. Well known parameters give only partial information, and their connection with useful traits has correlative character. To find out the solution of this problem, we offer the method based on GDV (Gas Discharge Visualisation, or Kirlian effect). In our opinion, this method can be used for an integrated estimation of a plant condition.

At St.-Petersburg State Institute of Mechanics and Optics we conducted the experiments on studying of the seeds of durum and soft wheat with the help of GDV-system "Korona - TV" designed by Kirlionics Technologies International.

For experiences the seeds of two cultivars of durum wheat (Aktyubinskaya 75 and Hordeiphorme 728) and two cultivars of soft wheat (Kopylyanka and Souzorye) were selected, 20 seeds of each sample. Seeds carefully calibrated on their sizes were located in front of the TV-camera of the device fixing a seed luminescence in an electrical field of high intensity. Seeds were placed in such a manner that their embryo was directed to the TV-camera. The luminescence of each sample was fixed in three replications. The images of seed luminescence were fixed as graphic files for the IBM-compatible personal computer. Nine parameters of this luminescence were studied: the area of a GDV-luminescence, noise, factor of the form, fractal coefficient, parameter of brightness, deviation of a parameter of brightness, number of fragments, average area of fragments, disorder of the areas of fragments.

The analysis of the obtained results has shown essential distinctions in the degree and character of the luminescence. For example, the area of the luminescence of separate seeds in the same cultivar in some cases differed more than twice. It is impossible to explain this phenomenon by the difference in seed sizes because they were the same. Moreover, when the

seeds were reversed in the electric field, the seed luminescence weakened. The decrease of the luminescence level was observed as well in case of damage in the embryo parts of seeds.

The orientation of the observed objects is an important item in the technique of the carried out research. The study of wheat seeds has shown that the different sectors of luminescence also considerably differ among themselves, however it is not possible to give any interpretation of the results because of absence of the developed technique for the analysis.

The results of the research show, that various seeds of the same cultivars can give luminescence of different character, that allows to conclude about the possibility of application of this method in seed breeding of plants. Besides, the character of the seed luminescence varies with of time.

To define the importance of the investigated parameters we have applied the factor analysis. It has been found out that the basic parameters are independent from each other. The parameter of brightness and deviation of the parameter of brightness have opposite directed factor loadings, the number of fragments and disorder of the areas of fragments are unidirectional. The average area of fragments is the parameter decreasing with the increase of the number of fragments and their disorder.

Thus, the estimation of properties of the seeds with the help of the GDV-method can be used as an additional tool for studying of traits in vegetative organisms.

AN ATTEMPT TO EXPERIMENTALLY INVESTIGATE CONSCIOUSNES WITH THE HELP OF OPTICAL AND TEMPERATURE SENSORS

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Abstract

With the help of optical sensors mounted on the temples of a subject which monitors the arterial blood volumetric changes to the left & right lobes of the brain and by recording the breathing activity with the help of temperature sensors in the two nostrils simultaneously, an attempt is made to investigate the states of the brain and breathing activity of a subject who goes into a state of 'CONSCIOUSNESS' voluntarily . From such investigations, it is reported that it is possible to investigate the conscious states of the brain in terms of the arterial blood volume changes as monitored by optical sensors.

TEXT

Modem medicine divides the brain states into three levels: waking, sleeping and dreaming. Besides these, there is also a state where the brain is still and there are no thoughts. It is a physiological state which one can reach and transcends space, time, name and form.

This fourth state of the brain had been recognized by Indian seers several centuries ago. According to Jung and other modern psychologists, the human mind is divided into three levels of awareness: (a) conscious (b) subconscious and (c) unconscious. While the states of subconscious and unconscious, which have been identified with sleeping and dreaming, have been investigated extensively, the state of consciousness is still shrouded in mystery. Mainstream Western psychology has assumed that consciousness is a function of mind originating in the physical brain. The comprehensive Textbook of Psychiatry (Vol III, 1980, p.3318) defines consciousness as:

"Hypothetical sensory centre in the brain that is involved with a person's clarity of awareness about himself and his surroundings, including the ability to perceive and process ongoing events in light of past experiences, future options and current circumstances"

However many new findings in the behavioral sciences challenge the assumption that consciousness is a function of the mind linked to the brain and consciousness is increasingly being recognized as more fundamental than the mind. If that is so consciousness can be located in any part of the human body depending upon the perception/awareness of the person at that point of time.

It has been realized that the scientific approach to study consciousness experimentally is not going to be easy since it can take many forms and defies precise definition [1]. There are many forms of consciousness, such as those associated with seeing, thinking, emotion, pain and so on. Self-consciousness- that is, the self-referential aspect of consciousness-is probably a special case of consciousness. Christoff Koch and Francis Crick [1] have chosen visual awareness in their experimental study of consciousness because they believe that humans are very visual animals and the visual awareness is especially vivid and rich in information. In the present investigation, the arterial blood volumetric changes to the left & right lobes of the brain as monitored by the optical sensors mounted on the temples of a subject and the differential nostril breathing as monitored by temperature sensors positioned inside the nostrils of a subject are taken as the tools for experimentally observing the state of consciousness. These experimental techniques have already been used successfully for monitoring brain events [2]. The temperature sensors inserted in the nostrils of a subject give an accurate variation of the differential breathing activity of the subject. The close link between breathing and brain activity has also been established using these measurements [3].

These measurements reported here were carried out at Foundation for Self-Knowledge, an 'ashram' meaning a spiritual retreat in the outskirts of Chennai. The subject, Swami Shuddhananda, who is the head of Foundation, is an adept in self-knowledge hence meditation and trains spiritual aspirants in this campus. Our instruments - (PPG sensors) and temperature sensors were mounted on the subject and the subject was asked to sit in a comfortable chair. The subject by virtue of long years of practice is capable of deep meditation (always with the Self, the state of consciousness and hence, was asked to be in total meditation-'to be' in the state of consciousness during the course of observations. Optical

sensors were mounted on his temples and temperature sensors were fixed near his nostrils. The first data set was taken when the subject had been in relaxed state before he started meditation. After a few minutes, when the subject is supposed to be free from thoughts the state of pure consciousness, a second set of readings were taken. Both sets of data were plotted in time and frequency domains.

From the above mentioned measurements, it is obvious that for a trained practitioner, a consciously conscious person, it is possible to stabilize or disturb his brain states at his will as demonstrated by the blood volume changes in the left and right temples of the subject monitored by the optical sensors. This could be the fourth state of the brain which is different from waking, sleeping and dreaming states of the brain. The waking, sleeping and dreaming states of the brain have been extensively studied and well understood, using EEG based investigations. This fourth state of the brain which is generally referred to as 'awareness' or 'consciousness' in the vedantic and yogic literature is hardly investigated scientifically let alone understood properly. It is suggested that this fourth state of the brain can only be attained by anyone practicing conscious meditation which automatically influences the thought pattern and therefore the breathing. Experience in spiritual exercises like controlled breathing, chanting, meditation or by vision whatever that may mean, can lead to attaining this fourth state of the brain or consciousness. Christof Koch and Francis Crick [1] have been trying to persuade people, and especially those scientists intimately involved with the brain, that now is the time to take the problem of consciousness seriously. The results reported here from monitoring blood volumetric changes in the brain are an indication that it might be possible to investigate consciousness through experimental means. If this is true, it opens up a small window for experimental investigation of consciousness/awareness. This window of opportunity, if properly exploited, might have far reaching implications for unraveling the mysteries of consciousness.

REFERENCES

1. Francis Crick, 'The Astonishing Hypothesis'-The scientific search for the soul, -A Touchstone Book, Published by Simon & Schuster Inc, NY/USA, 1995.
2. M. Mukunda Rao, V. Blazek and H.J. Schmitt, "Real-time detection of brain events using optical sensors: Preliminary Results", Published in the Proceedings of the Sixth International Symposium CNVD '95 held at Linköping, Sweden during June 16-18, 1995.- VDI Fortschritt Berichte Reihe 20, Nr. 221, pp 111-118, VDI Verlag, Germany.
3. M. Mukunda Rao, V. Blazek and H.J. Schmitt, "*Investigations on the influence of Breathing on Brain activity using Optical Sensors*". Presented at SPIE BIOS '97-International Symposium on Biomedical Optics, San Jose, 1997. Published in the Proceedings of Biological Fluids and Advanced Techniques in Analytical Cytology, Vol. 2982, pp. 53-64, Feb. 1997.

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THE ANTROPIC BIOENERGETIC INFLUENCE ON THE WATER SUPERFICIAL TENSION APPLICATIONS ON ORGANICS ECOSYSTEMS

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OBJECTIVES

To study a bioenergetical antropic influence on the water superficial tension, drawing conclusions by inferring applications on biology, medicine, bioengineering, mineral technology (flotation), and another possibilities.

This research quantified the bioenergetic emission effects made by people who produced changes in the superficial tension measurements of both distilled and pure and mineral water. Strict statistical procedures showed many conclusions related to the detected value variations linking with possible effects on the Organics Ecosystems.

METODOLOGICAL ASPECTS

Five bioenergetical emissors was utilised in five series of four different treatments during one year. The water temperature, the bioemissor temperature and the ST were measured before and after each experiment for destilled and mineral water. These experiments were made with and without a metallic conductor handheld and introduced in the 50 ml 'becher', The emotional and physical emissors conditions were also recorded.

The temperature was measured using an Hg thermometer – ASTM 5C IMM 108 MM – N/447/89 graduate up to 50°C, and the ST using a Fisher Model D20 tensiometer that uses the Ring Method recommended by ASTM in the Methods D-971 and D-1331. The procedures defined by ABNT – Brazilian Standards were considered during the experiment, including MB-320/1965 – Methods for determination of the interfacial tension between oil and water and ISO 304-1985(E).

The parametric and non-parametric statistical analysis were defined using a specialised software in a 'Pentium' IBM PC.

RESULTS

The 'Box & Whisker Plot' graphs, in a exploratory character, indicated a possible normality related to the studied samples. They established the average values supplied data on their variability. The 'Kolmogorov-Smirnov' test confirmed the samples adherence to the Normal Curve ($D_{\max \text{ calc.}} < D_{\text{critic}}$), and significant level significance level ($\alpha=0,05$). The 't-Student' test for 2 (two) pair of samples, Treatment 1,3 and 4, 'Rejected H_0 ' and "Accepted H_1 ", at the confidence level ($\alpha=0,05$), showing significant differences (s) and very signifi-

tive differences (**vs**) between the ST values before and after the bionergetic emissor experiments. The non-parameter ‘Wilcoxon’ test reconfirmed the differences founded on the ‘t-Student’ test. A jointevaluation for the 4 (four) treatments through the Variance analysis (ANOVA), the ‘Kruskal-Wallis’ test and the ‘Tukey’ test ($\alpha=0,05$) confirmed the very significative differences (before and after), exception for the Treatment 2 (T2). The descriptive statistics listed the results in Table 1. Critical sample size = 13 (BARBOSA F°, 1995). The multivariable typology ‘Cluster Analysis’ (Group Analysis) produced segments of significative dissimilarity and the variations of the same group have a high internal similitude.

Table 1 – Descriptive Statistics

VARIABLE	SIZE (n)	AVERAGE (Dyne/cm)	STANDARD DEVIATION
(T1)TS_ANT1	25	71.77±1.46	3.534
(T1)TS_APOS1	25	66.48±2.39	5.779
(T2)TS_ANT2	24	72.49±1.23	2.923
(T2)TS_APOS2	24	72.68±1.51	3.583
(T3)TS_ANT3	21	73.59±0.99	2.166
(T3)TS_APOS3	21	70.76±2.46	5.405
(T4)TS_ANT4	21	73.28±1.07	2.352
(T4)TS_APOS4	21	74.18±0.77	1.697

CONCLUSIONS

The man emits by the hands a kind of bioenergy that is capable to produce changes on the Water Superficial Tension (ST), which variations can be measured in terms of quantity.

The almost demineralized water associated to the conduction procedure is a possible explanation for the Treatment 2 not having produced statistically significative changes.

The use of the metallic conductor resulted on the ST decrease (Treatments 1 and 3), independently of the environment (pure or mineral water).

- 1) The hands imposition increased the ST (Treatment 4).
- 2) After one week, part of the bioenergy transfered to the water was lots to the environment.
- 3) The bioemissors who participated in the Ectoplasmic and Fluidtherapeutic meetings produced more water ST changes.

RECOMMENDATIONS

To produce researches on the subjects: growth and treatment of the ill plants; hypertension treatment, healing; Embrionay, cancerous and microorganisms cells culture, physical nature detection of the bioenergetic emission, to produce an equipment prototype that can mimic (simulate) this energy on industrial scale aiming at technological applications

(Agriculture and Mine Engineering/flotation). To introduce new variables control data (Environment and Volunteers).

Table 2 – Results of the differences after energetic action.

Data in crescent order.

Detached the most significant results. (Dynes/cm)

n	T R E A T M E N T ' s			
	T1 – Treat.	T2 – Treat.	T3 – Treat.	T4 – Treat.
	1	2	3	4
	Dest. / CC	Dest. / SC	Miner. / CC	Miner. / SC
1	-14.70	-3.95	-17.85	-1.50
2	-14.30	-2.10	-13.25	-0.55
3	-11.55	-2.00	-9.20	-0.25
4	-10.60	-1.55	-9.10	-0.05
5	-10.50	-1.50	-8.40	0.00
6	-10.15	-1.00	-4.50	0.10
7	-9.15	-0.25	-2.75	0.10
8	-8.00	-0.10	-2.25	0.20
9	-7.70	0.00	-1.00	0.25
10	-7.50	0.45	-0.75	0.25
11	-6.10	0.55	-0.45	0.65
12	-6.10	0.65	-0.30	0.65
13	-5.20	0.65	-0.05	0.80
14	-3.80	0.70	0.35	1.50
15	-3.25	1.20	0.45	1.75
16	-2.45	1.20	1.00	1.75
17	-2.25	1.20	1.40	1.85
18	-2.00	1.25	1.50	2.45
19	-1.60	1.35	1.60	2.50
20	-0.50	1.40	2.00	3.05
21	0.00	1.45	2.20	+ 3.40
22	0.50	1.50	--	--
23	0.60	1.65	--	--
24	2.00	2.00	--	--
25	2.05	--	--	--

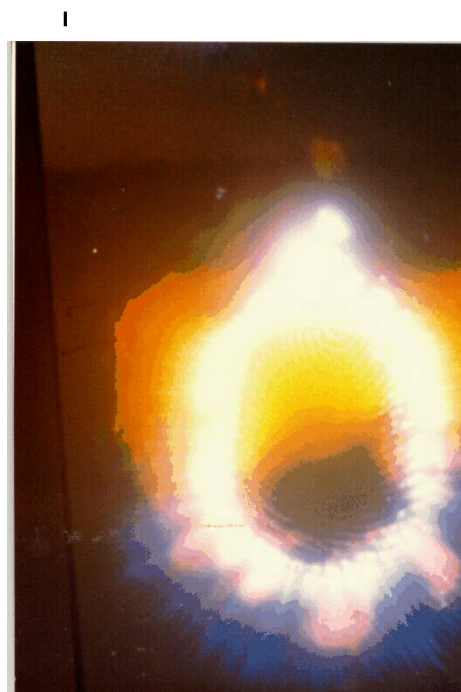


Photo 4 -

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THE BASIC POSTULATES OF GENERAL THEORY OF PHYSIOLOGY OF CONSCIOUSNESS

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The huge volume of researches of functions of a brain, mechanisms of memory and recognition of images spent by various scientific schools all over the World till now has not resulted in understanding physiological essence of consciousness as such. There is an impression, that this area could not become known in general, or it is required some re-comprehension of the saved scientific data. Just the untraditional analysis of results available neurophysiological, psychophysiological, linguistic and biophysical researches has allowed to formulate four basic postulates of the general theory of physiology of consciousness.

1. Everyone sensory system (sense organ) perceiving a kind of an information signal (a sound, light, smell etc.), specific to it, is capable to generate (to reproduce) an image similar to an information signal or its fragment under influence of stimulus.
2. The information image of the phenomenon in specific form to every sensory system is fixed and is kept (is remembered) in structure of this system; the code designation of the phenomenon is fixed by a steady sequence group interaction of muscular groups of the speech device and is reproduced as a verbal image.
3. The long-term memory of an image of the phenomenon is formed by training at the expense of gradual organization of differentiated neuron networks that create steady interrelations between sensory organs and proper muscular ensemble of speech device.
4. The consciousness is a dynamic process of reproduction under influence of endogenic and exogenous stimulus of the generated images, concepts and representations about the phenomena of a Nature and their logic correlation among themselves.

The first postulate specifies presence of inverse function of sense organs, second - on their ability to keep the information, specific to them, third characterizes the mechanism of memory as integrated function of sensory systems of a brain and of the speech muscular device. It is necessary parts of uniform physiological system of process of thinking and consciousness as a whole.

From stated follows, that the memory as such is not especially function of a brain. In formation of memory of sensory organs participate probably steady conformational reorganization of protein molecules, intercellular contact networks and holographic mechanism. Last, apparently, occupies a general place in a storage of the visual information.

It is necessary to note, that the formulated above postulates have experimental confirmations. Besides on their basis there are explained many “mysterious” phenomena of human mentality, including such as genius (artists, composers etc.), hypnosis, dream etc.

Thus, the consciousness and thinking process of the man is natural property of high organized biosystem, its physiological function, which is carried out on a basis of general physiological principles of the feedback, minimization of energy loss, system organization.

RADIONICS & KIRLIAN PHOTOGRAPHY

V.M. Rao

USE OF KIRLIAN TECHNIQUES FOR VERIFYING RADIONIC RATES.

Radionics is a non-invasive method of treatment at a distance accomplished by transmitting digital information through the medium of an instrument to a witness (a photograph for example, of the patient). For diagnosis, the dowsing faculty is used. All objects emit polarised waves which have a digital equivalent. The digital rate for a healthy organ is used to remind the patient what his organ should actually emanate. In case of infection or other disturbances from the normal state, a therapeutic rate is used that brings back the organ to its normal state. These instruments are of various types and can be either passive or active (active using electrical energy or light rays etc.). In all cases, the rates (usually consisting of 6-9 digits) are transmitted through the instrument. The theory of torsion fields developed by A.A. Akimov explains this phenomena [1].

In this Century, many experts like Dr. Albert Abrams, Turenne, Ruth Drown, George de la Warr, David Tansley, Malcom Rae etc. have contributed to the development of the subject [2,3,4]. The main problem has been to establish correct rates. Two sets of numbers having different digits can give almost similar results as far as the dowsing faculty is concerned. However, only the correct set of digits can effect the cure in a very short period of time and permanently.

Recently I have found out that rates have to be made from neutral samples (neutral - means free from electro-magnetic influences) - most important of which are those at 1680 Mega Hertz i.e. the OH radical transition frequency. As almost all objects contain some small traces of water, it is most important to correct them to be neutral. The fact that the digital rate of a sample, is increased by positive radiation (right polarized) or decreased by negative radiation(left polarized) has not been recognised in the past to the best of my knowledge.

KIRLIAN PHOTOGRAPHS TO SHOW EFFECT OF ELECTRO MAGNETIC RADIATION.

Diverters or more properly neutralizers R.H.S (Right Hand Polarized) and L.H.S (Left Hand Polarized) have been developed. A further development has been the oxygenator which improves the quality of water as several tests on plant growth have shown. They are basically passive, highly tuned, lens, antennas that pick up cosmic radiation of the opposite frequency to that being corrected. Photographs taken on a grape exposed to these diverters one after the other show clearly the effect of these diverters on the aura and validate the assumption of 1680 MHZ as the rate that is important.

VALIDATION OF RADIONIC TREATMENT RATES BY THE G.D.V. TECHNIQUE:

The G.D.V. Technique is used for monitoring the improvements as a result of treating patients using radionics. G.D.V.- grams photos of some persons treated using radionics have shown that the energy distribution in the aura has been normalised due to the treatment.

The treatments included are: (a) Correction of Lymph (b) Correction of DNA and Non-DNA miasms present in the major Chakras (c) Correction of diseases in the Mental Body and (d) Correction of DNA and Non-DNA miasms in the minor Chakras in the Etheric Body.

The use of the G.D.V. technique enables non dowers or healers to use radionic instruments and rates successfully.

The steps followed in the treatment and the G.D.V.- grams photos before and after treatment are discussed in detail in the paper presented.

RATES

Even for a common body fluid like blood, there is a wide variation of rates De.La.Warr 409, Vernon D. Weathered 4434, Yvon Combe 156982, Rao 611666166. A method that can be used to determine the correct value of the blood rate is to dowse using a witness of urea to obtain an individual's blood urea value. The value can be checked in a Laboratory. Such a test repeated by several dowers gives you a rate which is more accurate. Validation of this rate for blood can be observed from the following GDV photographs taken of a witness treated radionically using this rate for blood on the Pegotty Instrument and subjected to potency of a medicine like Pycnogenol. The instrument used is a simple one called a Pegotty Board (invented by Mr. Butcher, an Aircraft Engineer for Boeing Company 1950s in the US).

Pegotty Board:

Pegotty Board has equally spaced holes which actually represent numbers from 0 to 11. The middle hole for number 5 is skipped. The black pegs are placed from left to right - for example, the rate of blood is 611666166. The Pegotty Card is a representation of the Pegotty Board and similarly, numbers are marked on the card. The card is kept in the slot and the photograph of the patient is kept at the bottom. A bottle of potensized medicine is also kept on the board. With this simple machine, the treatment of the patient's blood is done through the patient's aura from the photograph.

The rate for blood is shown on the instrument. This instrument can also be used with a pulsating field. Various treatments have been done and the GDV - grams show the influence of the radionic treatment for various items described. The pegotty board is used in the following manner:

- The rate for the organ is set on the board.
- The photograph or a witness of the person being treated is placed at the bottom.
- The rate of the location of the organ (Physical Etheric Body) is marked on to the Pegotty Card and inserted in the Pegotty Board slot. The potensized medicine is put in a bottle after the card.

The rates of organ and medicines can be obtained from suitable samples and can be optimised after several trials by getting dowsing rates (using them radionically) and testing in a Laboratory patient's reaction. However, there is no way of verifying the rates for Chakras in the Etheric Body and rates for other bodies except through the GDV apparatus. One obtains rates by dowsing and radionic treatment is carried out on several patients using the

various rates obtained by the same dowser or different dowsers. The rate which gives the best improvement in the shortest possible time is closer to the absolute one (if it is possible?).

This technology is now being tried out in two Hospitals in Vijayawada, AP for the treatment of Type II Diabetes and Asthmatics (not due to allergens). Preliminary results are very encouraging and I hope that in the next conference one of the Doctors will be able to present data on a large number of patients and case histories.

References:

1. Akimov A.E., Shipov G.I. 1998 - Experimental Manifestations of the Torsion Fields and Torsion Model of Consciousness - Consciousness and physical reality Vol.1, N.1, P.42-63.
2. The Practice of Medical Radiesthesia - Vernon D Wethered.
3. Dimensions of Radionics - David V.Tansley.
4. Report on Radionics - Edward W. Russel.

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DIAGNOSIS OF THE FUTURE ?

Bernie Rowen

For centuries man has understood that the human body consists of a complicated system of paths of electrical energy. Acupuncture and allied therapies have relied on identifying and using these paths to reduce pain, cure illness and disease and determine what type of medicinal or herbal cures should be prescribed. Westerners tend to deride this type of diagnosis and treatment and often label it as esoteric claptrap. Witches and Wizards were burnt at the stake in the Middle Ages for far less crazy theories! Modern science has far outstripped the ancient arts and sciences and after all, the sum of our knowledge doubles every five years at present. Now, by reading the auras round each finger we can determine the malfunction of any organ in the body, often long before physical symptoms become evident.

A far back as 1850 it was found that the electrical field surrounding every living entity could be measured. Cabbages, trees, dogs, leeks, human beings, in fact everything emits this mysterious force field. The first real breakthrough came in 1940 when a Russian foreman Semion Kirlian whose job was the repair of medical equipment accidentally found that this enigmatic glow could be not only measured but photographed. He was astonished to find that the electrical crown around the fingers changes colour and size depending on the psycho-emotional condition. Early photographs were time consuming and primitive.

Over the past twenty years much research has been done regarding the accuracy and fine tuning of the Aura glow analysis and recording. Professor Konstantin Korotkov, the

world leader in bio- electrography research at St Petersburg University in Russia and his team have studied the Auras of thousands of subjects, and from the results of his findings and research developed the Gas Discharge Visualization (GDV) machine.

No more hit and miss but a scientific process of recording and analysing that elusive field of energy that surrounds all living entities. Every physical organ, every function of the mind and body has its precise effect on the human aura, and this can now be recorded using bio – electrography.

A process of computerised analysis follows which produces a full body aura both in front view and profiles. Each finger reading and full body reading is analysed in detail and the results are remarkable. Bernie Rowen of Durbanville in the Cape is an experienced alternative health practitioner. She is qualified in Ayurvedic Primary Health Care, Iridology, Acupuncture, as well as Aromatherapy and Reflexology, and recently underwent a course of instruction in London with Elena Tchernychko who heads the Kirlian Research Institute in the United Kingdom and is a protégé of Professor Korotkof and now Bernie has the first of these machines in South Africa.

Scientists in many countries, including Russia, Brazil, and Germany, having analysed the results of many clinical trials, argue that bio- electrography is the most advanced medical diagnostic system on planet Earth. It has many other advantages, one being that it is possible to measure in very short time periods, the efficacy of any particular treatment given. As the aura changes so rapidly, the response to treatment, whether it be meditation, flower remedies, herbal treatment, homeopathic remedies, crystal healing, yoga, or more conventional methods of treatment will show a marked response in the aura. As Bernie says “ what other system can, in one operation provide comprehensive and reliable information about the entire mind and body system? We can now determine which area of the body according to the Chakra system is out of balance. If, for instance the throat Chakra shows under or over functioning, we can increase our Vitamin C intake to prevent a sore throat from developing. If we find the solar plexus Chakra is out of balance this may indicate problems in the digestive system which can then be treated accordingly. This treatment may include meditation on the colour yellow which is the colour of the solar plexus Chakra. Lack of self esteem may also be indicated by a lack of balance in this Chakra.

This is certainly the ultimate in preventative medicine as our biography becomes our biology – or what shows in the Aura will show in the Organs! “

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INVESTIGATION OF ENERGY-INFORMATIVE INFLUENCE OF WORKS OF ART BY MEANS OF INFRA-RED SPECTROSCOPY TECHNIQUE

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Throughout centuries, works of art from the primitive ones (idols, totems, icons) and up to the works by modern artists, have been ascribed the possibility of influencing a human being, i.e. realizing energy-informative influence (EII).

In spite of existing a number of techniques of EII effects registration, there is actually no universal method that would let us identify rather than register specific kinds of influence.

We have worked out a complex of methods for investigating the EII processes based upon the unique property of water of changing its state because of the EII, i.e. of creating energy-informative “portraits” of the influences tested.

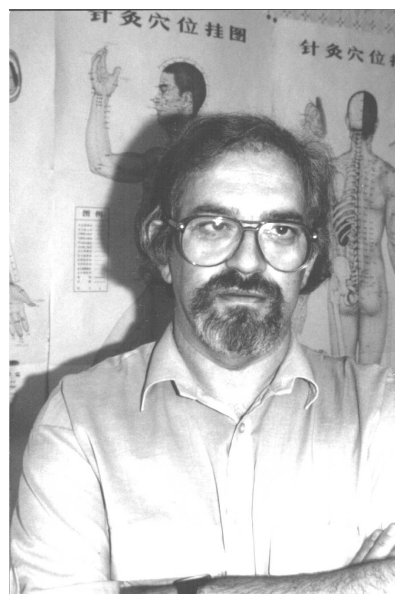
Water has been chosen for the following reasons:

1. Its global role in the noosphere.
2. The results of water investigation may be readily extrapolated upon blood, lymph and other biological liquids of human body.
3. In all the main esoteric schools water is used for registering and storing the EII.

EII evaluation has been conducted in the following way. The object whose influence is to be evaluated is placed next to pure water for a while, usually for about an hour. Then dependencies of absorption stripe maximum change versus temperature are plotted (the stripe is chosen in the nearest infra-red area of the specter, as a rule, of about $5\ 180\ \text{cm}^{-1}$). The analysis of changes in the graphs of temperature curves before and after the influence allows us clearly identify the EII.

As a result of investigating numerous works of art, we can come to the following conclusions:

1. Works of art create real physical fields directly influencing biological objects.
2. The influence of the above fields may be both positive and negative.
3. The suggested method of investigation allows us to identify the EII of different works of art.



GDV-GRAM IN THE EVALUATION OF BRONCHUS' INFLAMMATION ACTIVITY

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The work was aimed to evaluate the influence of bronchus' inflammation (its activity and type) on GDV-gram.

162 people from 17 to 50 years old were checked. 20 of them were healthy and 142 had bronchial asthma (BA). All the patients were studied and treated in the clinics of hospital therapy n.a. M.V.Chernorutsky of St.Petersburg.

State Medical University named after I.P.Pavlov. The patients included 32.4% (46 people) with atopic variant of BA pathogenesis, 10.6% (15 people) - with hormone dependent BA variant, 8.5% (12 people) - with aspirine BA, 7.0% (10 people) - with infection dependent variant, 1.4% (2 people) - with oxalate BA, and 40.1% (50 people) did not have any revealed dominance of any BA pathogenic variant, they had a BA of mixed character.

The most number of the people - 75% (107 people) had an average form of the illness' course; severe and light forms were noticed in approximately equal number of cases (12% both (17 and 18 people). 27.5% (39 people) of BA patients had a remission of a disease.

All the tested patients were conducted a GDV-gram for 10 hand fingers with "Crown-TV" instrument. The results of cytologic examination of sputum were analysed for 80 patients. 12 people were evaluated the level of histamine and serotonin in the exhaled air moisture condensation (EAMC).

Besides, the data of EAMC's laser correlational spectroscopy were analysed for 23 cases. The statistical analysis of the received results was conducted with "OMIS" software complex of "Intellectual systems" firm.

During the studies it was revealed that the GDV-gram of hand fingers of healthy people is characterised by a bigger area of radiation, higher noise level and fractal coefficients of the picture. The closest to healthy people parameters of GDV-grams were noticed for patients with atopic variant of BA pathogenesis. In other variants of pathogenesis, especially for people BA, and also as the form became more severe or the disease turned to acute condition, it was noticed the decrease of radiation area, of noise level and fractality of hand fingers' GDV-gram's picture.

During the studies it was also revealed the decrease of radiation area, noise level and coefficient of GDV-gram picture form when increasing of leucocytes' level in native sputum preparation. Thus, if leucocytes of 0-9 cells were kept in the field of vision (insignificant inflammation) the largest area of radiation (> 12345 pels) was observed in 58% of cases on average (for 5R, 4L, 5L fingers). If the number of cells was more than 10 (moderate and severe inflammation) such area could be seen on the same fingers in 23% of cases on average. High noise level (> 7083 pels) was observed in 88% and 56% (4R) respectively, and

excessive form coefficient - in 77% and 35% of patients (4L) $p=0.004$. Thus, as the form of bronchus inflammation becomes more severe it can be seen the tendency to decrease of hand fingers' GDV-gram picture's parameters.

In the analysis of eosinophilic inflammation form influences it was revealed the increase of noise level and the picture form coefficient with the eosinophiles level increase in the sputum cytogram. Thus, when eosinophiles increased from 20% and more (acute eosinophilia) high noise level was generally noticed in 75% of cases (4R, 5R, 2R, 2L), and when eosinophilia was less then 19% the same noise level could be noticed on the same fingers in 28% of cases approximately; and for the form coefficient - in 89% and 36% respectively (4L) $p=0.004$. Thus, the processed data of sputum cytology, correlated with GDV-gram, acknowledge the results of analysis of BA clinical form influence on GDV-gram, i.e. as the form of eosinophilia becomes more severe it can be seen the tendency to noise level and hand fingers GDV-gram picture form coefficient increase.

In evaluation of the GDV-gram picture parameters' coherence with the level of neutrophils in sputum cytogram, there was not revealed any single tendency of results for different fingers, as it was in leucocytosis and eosinophilia evaluation. When neutrophils were of less then 45%, the higher noise level was noticed for 5R in 74%, when they were 46% and more, the same noise level for 5R was noticed in 31% of BA patients. The opposite situation was for 3R - with neutrophils before 45% the high sound level was noticed in 35% of cases, and when neutrophilesis was of 46% and more - in 71%. The same ratio was received in the analysis of radiation area (for 2R the bigger area was noticed with the level of neurophils up to 45%, and vice versa for 3R and 5R) $p=0.004$. Such a result might be connected with different sectorial projection of organs on hand fingers GDV-gram and different reaction of the organs on neutrophilic inflammation in bronchus.

Analysis of the patients' hystamin and serotonin levels in exhaled air moisture condensate and hand fingers GDV-gram revealed the following regularity: with serotonin level increase radiation area decreased, and noise level increased. Analogical GDV-gram changes were noticed with hystamin increase in exhaled air moisture condensate. These data show that if the degree of inflammation activity increases, radiation area decreases (it was also revealed in the previous data), increase of serotonin and hystamin level is accompanied by increase of noise level which might be connected with increase of cells' metabolism activity.

Similar results were received by correlation of lazer correlational spectroscopy with hand fingers' GDV-gram. It was noted the increase of noise level with infectional process' increase and decrease of fractal deviation with activation of catabolism products removal per lungs.

Conclusions:

1. Hand fingers GDV-gram of healthy people is characterized by the bigger radiation area, higher noise level and fractal picture coefficient.

2. The closest to healthy people's parameters of GDV-gram were revealed for atopic BA patients. The patients with other variants of BA pathogenesis (especially people with infection dependent BA) were noted the decrease of GDV-gram picture indicators.

3. The noticed decrease of radiation area, noise level and fractal indicators with increase of disease form gravity or its transfer to the acute phase can be also seen with bronchus inflammation increase (by leucocytosis level in native sputum preparation).

4. Marked (severe) eosinophilia in sputum, as well as atopic BA, was accompanied by higher noise level and hand fingers GDV-gram picture form coefficients.

5. Higher noise level in the picture was also characteristic for serotomine and hystamin level rise in exhaled air moisture condensate. It is known that eosinophilic and noneosinophilic inflammation in bronchus flows with a great amount of cytokines taking part in regulating of functions of eosinophils, neutriphils, lymphocytes and other cells. Characteristics of GDV-gram in atopic and nonatopic BA forms can be connected with various spectrum of cytokines, extracted in different cellous variants of inflammation, nature of these inflammatory variants' flow. The link between hand fingers' GDV-gram changes in bronchus inflammation with its biochemical markers calls for further investigation.

DIAGNOSTICS AND TREATMENT TACTICS CHOICE WITH HELP APPARATUS “GDV-CAMERA”.

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The diagnostics of patient's state, the choice of individual therapy and monitoring of state in the process of treatment are very important objectives in medicine..

For this goal apparatus “GDV-CAMERA” is used in our clinic which allows to diagnose the condition of organism's general energetic, to reveal preclinical and stabilized processes in organism, and when possible to determine the latent causes of diseases. The main is to select the optimum therapy (psychotherapy, aromatherapy, colortherapy, musictherapy, autogenic meditative psychotherapy — AMP), and to control the treatment conducted.

It has been recognized in the process of research that when the energetic condition of a patient is taken into consideration while choosing the treatment tactics the result of the treatment become apparent in shorter period among larger patients and has been much more steady.

For example, 74 per cent patients felt better after energetic selection of medicinal herbs, they restored their energetic potential and showed the reduction of some pathological

symptoms. Within 2 or 3 weeks 90 per cent patients showed the significant improvement or full recovery, proved by clinical methods of investigation in control group where the selection of herbs was only after the provided according diagnoses, improving process started only after the third week (40 per cent), and considerable improvement became apparent at 60% patients by the end of the second month.

The similar results has been of therapy achieved, when applying aromatherapy. If energetic state of health was taken into consideration when selecting ethereal oil, it effected the result of therapy treatment 2 or 3 times quicker than in the group where treatment went on according clinical diagnosis.

At applying autogenic meditative psychotherapy “GDV – Camera” allows not only to select, individual therapy, but also to control the patient’s state in the process if treatment. After the general course of treatment we may provide the supporting treatment on the base of data obtained on apparatus “GDV – Camera” exclusively, and long before the appearance of clinical symptoms.

72 children and 28 adults were examined here who went in for sports (badminton, volleyball, gymnastics). After measuring their energaphysiological state the disbalance of energetics and latent pathological processes in an organism have been revealed in 42 per cent.

After physical loading 92% of those examined showed redistribution of energy in an organism: there appeared a prolapsus in such zones: of liver – 24% of patients; kidneys – 37% of patients; bronchi – lungs system – 40%; rhespiratoric system – 46%; small intestines 53%; uro-genital – 62%. Energetic splashes and the signs of aggression were fixed in zones: respiratory system – 38% of those being examined, liver – 48%, kidneys – 52%, heart – 67%, blood circulation – 70%, large intestine – 72%. Full recovery of energetic and functional state of an organism was observed within 4 or 5 hours at 67% of patients, 5% those examined attained full recovery after 24 hours’ period. 11% of patients showed a considerable improvement after 3 or 5 minutes of autogenic meditative psychotherapy (AMP), and 87% showed full energetic functional restoring an organism. Correspondingly children and adults felt much better, they felt fresh surge of energy, rejoice, cheerfulness.

It allows to use the given method for controlling energetic restoration of equilibrium and organism’s functional state after physical and emotional loading.

The trustworthy meaning full influence of various operators and psycho-emotional state of certain operator on an energetic system of those examined has been revealed in the course of investigation. This exerts influence on an accuracy of diagnosis and correspondingly on a selection and quality of treatment, and for sure demands special training for specialists in the sphere of diagnostics and therapy.

Summary:

1. Apparatus “GDV-Camera” allows to determine quickly the general energetic state of organism to reveal steady preclinical pathological processes, to diagnose and to select optimum therapy and control treatment.

2. Therapy selected with due regard for energetic state of patient under the “GDV-Camera” control allows to obtain more stable effect of the applied therapy, and psycho-emotional loading.
3. “GDV-Camera” can provide the selection of the restoring methods of psycho-physiological state of person after physical and psycho-emotional loading.
4. Operator’s psycho-emotional state exerts influence on the procedure of investigation and the accuracy of diagnosis, and certainly demands specialist’s special training.
5. “GDV-Camera” indubitable has been the possibility to store the results of examining in computer’s memory, their comparison in the process of selecting therapy and treatment it self.

FROM CHIZHEVSKY CHANDLIER TO THE ELECTRONIC MEDICINE

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As devices for the local aeroion therapy it is proposed to make use of chroral generators made of various species of wood. For the sake of aeroionization effect increase the electric microcurrents are exploited. The devices simulate healing effect of the live trees, producing ions and energy fields.

It is known that ions and ozone are formed in time of the thunder -storm (powerful lightening discharge in the air) and in the pure forest (there is no ozone smell here.but the air is saturated with ions and energy fields of the plants). Consequently it is possible to create devices that in principle do not generate ozone and obviate unwanted effect of the dusty ionized air on the breathing organs, but producing ions and healing energetic fields.

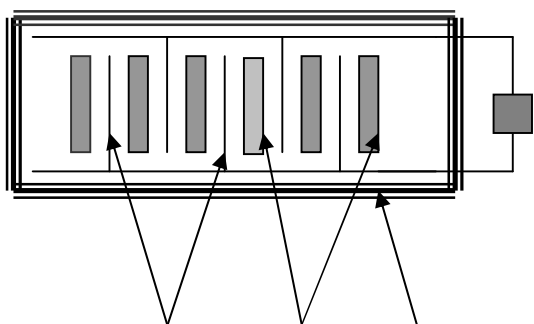
For the purpose we propose for use the chromal generators, producing aeroionization effect. A number of original designs is proposed with the main elements made of various species of wood and metal plates. For amplification of the aeroionization effect the electric field is set up between the plates and electric microcurrents are used.

Efficiency of action on the distilled water for a day period of Chizhevsky chandelier ("Elion - 131" apparatus) and generators made of a spen, ash and oak on the "Crown -TV" instrument was studied. The parameters of water emission area, taken by "suspended drop" method have been compared. The reference is Chizhevsky chandelier. The generators are made of aspen, ash and oak. Comparison of data made apparent the higher efficiency of developed devices on the value of water "charge". The same conclusioins are supported by the fact, that the water samples "charged" by the chandelier exhaust after 2-3 hours, while the samples

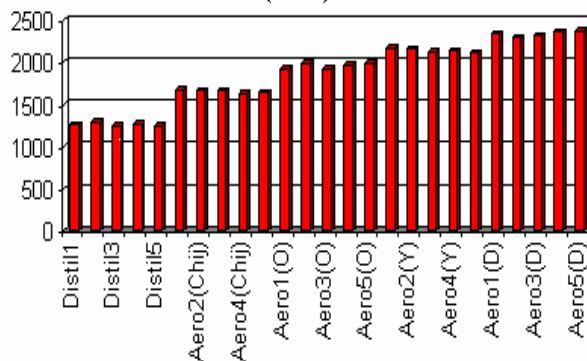
charged by generators exhaust after 3-7 days and more depending on their design that may be also explained by the "wood effect".

Schematic diagram of the device is given below. The action on the patient is produced by the fringe effect when the voltage is applied to the metal plates (1), separated by dielectric spacers (2). With spacers between the plates about several millimeters the desired ionization intensity is produced at the voltage between the plates in the region of 5-15 V, that completely eliminates striking action of the current as opposed to electrofluveal chandelier where the voltage used is of order 25-50 KV. Besides, the local effect of the electric field and ionization produced to the patient with allowance made for the time of existing of the ions developed provides the possibility to use alternative current instead of direct one. The field produced by different generators depends upon the shape of metal plates and upon dielectric material separating the plates as well as upon the material of the device body (3). The shape of the plate is selected so that the mutual shielding should be excluded and the maximum external electric field through the fringe effects should be provided. Basically the design is a chromal generator consisting of alternating layers of metal and dielectric. As a material of dielectric various wood species are used, which as it known, differently influence the health of the human being.

Схема устройства



BEO parameters of distilled and aeroionized water
(Area)



Method of the local transpercutaneous aeroion therapy with chromal generators was applied for the local treatment of rheumatic arthritis (RA). It was proved that at rheumatic inflammation the intra-articular pressure is increased and the local hypoxia arises inducing the failure of synovial tissue of the joint. Thus, eliminating of hypoxia is of vital importance for restricting cells damage and inflammation development. That is why in pathogenetic therapy of RA we propose for use the method developed. It is conceivable both quantitative and qualitative combination of generators of various designs to increase their power and to control the spectrum of their emission. Due to possibility of individual selection of generators with different parameters of emission it is possible optimally increase efficiency of their therapeutic effect. Biological Optical Emission technique in the field of gaseous discharge was used as a method of device selection and dynamic control for the patient. The methods of therapeutic effect for

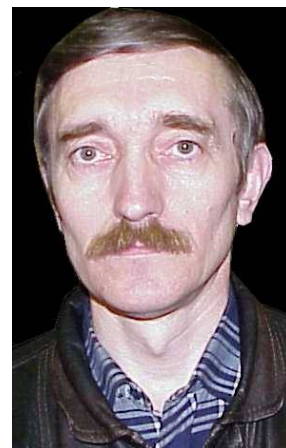
devices being developed in principle are similar to techniques of medicinal donor activity of plants. Design of the device incorporate widely distributed species of trees growing in the middle zone of Russia.

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BIO-ENERGY-INFORMATICS OF HEALTH OF THE PERSON AND SOCIETY

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Faith and knowledge, religion and science are different paths of comprehension of TRUE, ways of creation of the purposes, tasks, motives and acts of the people. The fullest interpretation of concept of health of the man, family, kind, society is their potential ability to survival and continuation of life. The history of mankind displays, that the mechanism of reaching of health is retrieved a long time ago.



A faith and repentance are the basis of the mechanism of reaching of health. In religion the bio-energy-informative process providing health is named as a repentance and pray. It is possible to speak both about the process, and about a specific state of a pray, both for the separate man, and for the society as a whole. The most essential moment in this state is the information openness.

It is possible to tell, that the composite bio-system for maintenance of the normal operation in essence should periodically use special adjusting modes, at which one there is a refinement and mutual coordination of parameters of separate devices of the system. During such set-up not only the destroyed links are restored, but also the indispensable units are synthesized.

The similar state of “set-up” can be reached is more lighter and more correctly during a pray, but also and other ways. The healers of the most different schools are use transition to such state of the bio-system of the man for restoring vital activity of separate organs, functional subsystems and organism as a whole. Thus they as go into this state, and originate it for the patients. For this purpose they are use or purely pray, or other techniques (bio-energy-informative simulation, different meditative technique etc.).

One of main indices of health of the society is the crime rate. Existing in the society the religious-moral principles , acceptance of aim of a faith and repentance are promote lowering of this level.

There are facts fixative possibility of obtaining of the hidden information. Probably, it is possible to show by scientific methods, that this is one of fundamental properties of the information in our world - its principled uncloseness, unvanishness, keepness. Let's accept a

working hypothesis about existence of “a universal conservation information law”. It is possible to suspect, that there is certain eternal inexhaustible its definite size flowing from one form in another. A consequent of this law is that after birth (manifestation) of the information in our material world, it never can not vanish any more. And after destroying material tracks of the any sort information, there are principled possibilities of its restoring.

The majority of crimes are committed in presume that the criminal guesses to hide the involvement in a crime, to hide the evidences. From it their are dramatic problems of extremely aggravating and an increase weight of crams by elimination of the attestors. And any other violations of law, misconductes against conscience and morals are based on possibility of an information cover-up.

Let's present a world in a situation, when it is considered scientifically demonstrated that it is in essence impossible to hide the information on the involvement in a crime, as well as any other information. The criminality in general becomes impossible in a considerable scales. The separate cases will stay only. Thus the relationships of the people become absolutely diverse. The set of negative events will vanish. It will be possible to speak about is nonmeasurable more excellence of health of the society.

Thus, the bio-energy-informative processes are major at the analysis of mechanisms of healing both man, and whole society. But it is necessary to note, that the laws of development and existence, as well as property of these processes have weakly studied at now. There are many ways and methods of learning of such processes in composite systems. A widespread scientific method is usage of simulation.

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GENERAL THEORY OF A RISE OF DISEASES

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At all times since the civilization was born on our planet the Humanity has been facing the same question: what is the reason for old age, why does a man fall ill and why he dies, what is the source of human ailments and diseases?

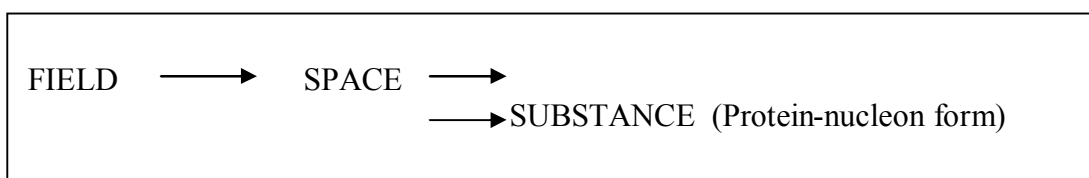
Today it is a certainty that all the diseases of the Humanity arise and develop as a result of the change of an information-effecting total signal (field), individual for each of us, by which we are influenced throughout all our life.

- General scheme is the following:
- The Universe is eternal and everlasting;

- The Universe develops according to its own laws;
- These laws are the informational energetic relations, which exist objectively and independently of our consciousness;
- Our planet, being a component part of the Universe, develops according to the laws of the Universe, too;
- The Humanity, being a constituent of our planet, is developed and controlled by the information-energetic flows (signals) in full measure, too;
- Therefore, both the state of each individual in particular and the state of socio-ethnic groups in general depend on either command of informational space of the planet, the Solar system, the Galaxy and the Universe.

As far as today we can not deny the influence of solar activity and geomagnetic storms over the somatic state of the Humanity, we will not deny the influence of other factors, little-known to the modern science: geomagnetic anomalies of the Earth (M. Kurri and A. Hartman grid), local geomagnetic zones, technothronic radiation, torsion fields, waves and particles insufficiently explored by the modern science.

A striking causal-investigatory relationship arises:



According to our conception of a rise of diseases (E.S. Stepanov, U.S. Pimenov, N.I. Zatulina, 1995), one of the sources of this rise is the deformation of human thin-material body, in consequence of which the body's protective function on the level of solid physical body (immunity) is reduced, and as a result of genetic factors determined by heredity state either pathology of solid physical body appears and develops.

The deformation of a thin-material body occurs owing to the total effect of the wave-field structures of space, determined both by a person's environment (ecological and social) and by his or her own behavioral line of life (i.e. by the actions: both good and bad).

As a result of these deformations the immunity starts to suffer, and it can be corrected both by the method of medicaments (peptide bioregulators – sytomedines, etc.) and by the wave-field method (“Gamma 7-N”, “Gamma 7-A” neutralizers and activators, “Scanner” and “Aura” hardware-controlled complexes).

However, a temporary improvement on account of using the above stated means does not eliminate the main source of the disease, its starting point – personal relation towards the environment: nature, society and the interaction with these.

Thus, summing up the aforesaid, we consider that the breach of those moral and ethnic precepts (there are 10 of these in Orthodoxy) by the Human Being leads to a launching of the mechanism of informational and energetic influence upon human thin-material body, upon his immunity and the development of disease in general, as well as upon his ageing.

This conclusion is based on a deep analysis of the present-day science achievements. The following are related to these:

1. Aurophasometer device (Ufa, U.P. Kravchenko) able to register the deformations of human thin-material body;
2. IGA – 1 instrument (indicator of physical anomalies, created at the same place) designed for the determination of geopathogen anomalies in- and outdoors.
3. GDV device and method (gas discharge visualization, St. Petersburg, K.G. Korotkov) which give an opportunity to record the state of human thin-material body in a colour image;
4. “Aura 001-015”, “Scanner”, etc. (Moscow, “Binar” Institute, A.A. Kruk, S. Urdanov, etc.) which enable to diagnose and influence on human thin-material body;
5. “Gamma 7-Neutralizer” and “Gamma 7-Activator” devices for individual use (Moscow, A.F. Okhatrin) protecting human thin-material body from geopathogenic, technothronic and social negative radiation and restoring the deformation of human thin-material body;
6. “Hepler” medical and diagnostic apparatus (N. Novgorod, V.G. Vogralik) able to determine the total state of human immune system very quickly and correct it if necessary;
7. RAYOCOMP PS 1000 (N. Kempe, Australia) a universal high-performance bioresonator for the integral vibration therapy and diagnostics;
8. CESH diagnostic system (computer electro-structurography, Tolyatti, V. Kudelkin) making possible to visualize in dynamics the quality of medical procedures including the biofield influence over a patient.

In conclusion it is worth mentioning that:

- energy-informational medicine is becoming a competent branch of medical science opening rich perspectives for the forthcoming future.

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PRANIC HEALING & GDV

Dr. Sundaram,

Vrunda Janardhan Pimpalkhute

We studied the human bioenergy field by manual method and by Gas Discharge Visualization (GDV) techniques to evaluate changes associated with various physiologic activities. In the resting state, manual and GDV methods were found to be complementary in the information provided. Physical exercise resulted in closure of the ‘gaps’ in the field and increased activation of some organ areas. Meditation and chanting a prayer / mantra resulted in increased dimensions of the overall field with better balancing of fields from right and left sides. Smells of aromatic oils had varied effects. Pranic Healing, a form of energy therapy,

caused changes suggesting activation of specific organ areas. in which we treat the human aura. To document the effects of our healing GDV is one of the ideal or rather “a instrument specially made for Pranic Healing”. In Addition to the aura photography, GDV helps us in deciding the exact procedure of healing process & amount of Healing done. The results of healing process and efficacy also can be ascertained exactly, immediately by GDV.

GDV TECHNIQUE APPLICATION FOR TESTING BIO-CORRECTORS.

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There are a lot of evidences of negative influences of technogen Electromagnetic Fields (EMF) to the health of people, in particular pregnant women and children. It was developed a set of devices in different countries that are claimed protecting from EMF and correcting bio-field of a person. These devices usually cost some money and need regular usage. As a rule, inventors tell some misty words about principles of their construction. Whether it is possible to test protective effect of such devices?

Based on GDV technique we have developed practical method for testing effects of different bio-correctors to the particular person. The situation is one and the same device may have positive influence for one person, neutral for another and negative for the third. At the same time it is known that the worst influence from the computer comes from the monitor, so in our technique the source of EMF usually is normal computer screen. Method works as follows.

1. Take BEO-grams of a person in initial relaxed state sitting before the computer monitor with screen off. (We are using second computer for BEO-grams registration).
2. Turn monitor on and immediately take BEO-grams.
3. Apply the Bio-corrector in operational position in accordance with its Instruction.
4. Wait 10 minutes.
5. Take BEO-grams of a person.
6. Compare all three BEO-grams using GDV-Processor or GDV-Diagram programs.

An example of this analysis is presented at the Picture. Curve 1 – initial state of a person; 2 – after turning on monitor (in this particular case all GDV parameters worsen, the same as for most people); 3 – after 10 min with Gamm-7 bio-corrector (parameters come back practically to initial state).

It was tested 9 different models of bio-correctors, 3 of them was found effective to different extend, others had practically no influence. With most effective bio-corrector it was analyzed 123 person of different age and sex. 112 of them demonstrated negative reaction to the computer monitor. When applying bio-corrector for 99 people is was found restoration of

the GDV parameters, 11 people demonstrated no effect and for 2 persons it was found worsening effect.

We can conclude that GDV technique may be applied for testing effectiveness of different bio-correctors and EMF protectors.

THE BASIC ROLE OF THE PROCESSES WITH INVOLVEMENT OF REACTIVE OXYGEN SPECIES IN LIVING FUNCTIONS REGULATION

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Reactive oxygen species (ROS), the products of one-electron oxygen reduction, are represented by superoxide anion radical ($O_2^{\bullet-}$), H_2O_2 , hydroxyl radical (OH^{\bullet}), hydroperoxides (ROOH), and their radicals (ROO^{\bullet}). They are able to initiate uncontrolled chain processes in which multiple organic molecules are involved. Reactions of ROS are up to 10-fold more exergonic than ordinary biochemical reactions. ROS interact non-specifically with many organic molecules. Due to all these properties ROS are extremely strong oxidants and in contemporary biochemistry paradigm they are considered to be the universal pathogens. Their generation in living systems is looked upon as grievous though inevitable price for aerobic respiration that had emerged in the course of the evolutionary process consequently to the appearance of atmospheric oxygen – the by-product of plant photosynthetic activity.

However this concept ignores a lot of hard evidence showing that ROS are absolutely necessary for normal vital activity. If air is deficient of superoxide anions (Chizhevsky's «air ions») human beings and animals become sick and can even pass away. On the other hand, more than 10-15%, and under the special conditions up to 30% of oxygen consumed by animals goes to ROS production. ROS are continuously generated in our body by ubiquitous specialized enzymes, by the enzymes performing other primary functions, and also non-enzymatically. Thus, ROS should play rather important physiological functions.

Living cells are known to react to external stimuli in one of the following ways: they either perform their specialized function, or change their specialization (differentiate or dedifferentiate), or proceed into the mitotic cycle, or, finally, proceed into the so called «programmed cell death» – apoptosis. It turns out that in most cases ROS determine the outcome of cell reaction upon specific extracellular biomolecular regulators. Besides, ROS themselves may imitate the action of certain hormones, neurotransmitters, cytokines upon particular cells. Biomolecular regulators may, in their turn, modulate ROS production by the cells. Thus, ROS may be looked upon as universal information messengers. But if ROS are devoid of specificity attributed to biomolecular regulators, how can they provide a precise regulation of cellular functions?

Though a considerable part of consumed oxygen is used in the organism for ROS production, the average levels of free radicals and other ROS in cells and extracellular fluids are extremely low. The so called «antioxidants» of enzymatic and other nature set a very high rate of their recombination and transformation into another compounds. Thus very slight variations in the rates of ROS production and/or consumption may result in drastic spikes and oscillations of their immediate levels. It should be stressed that the processes of ROS metabolism, and in particular the reactions of their recombination are accompanied by the generation of electron excited states. Our and other authors' results suggest that due to cytoplasm organization energy of electron excitation is unlikely to dissipate into heat. Rather it may accumulate in molecular and supramolecular ensembles, and redistribute among them by radiative and radiation-less routs providing intracellular and intercellular cooperation. How can it be done?

Is more and more recognized that biological reactions proceed as non-linear oscillatory processes. In particular, as we and others have shown the processes involving ROS are oscillatory as a rule. We speculate that the mechanisms of biological action of ROS are dependent upon the structure of the processes in which they participate, rather than upon the mean concentrations of these particles. By the «structure of the processes» we imply the frequency-amplitude patterns of the reactions of ROS recombination and their interactions with other partners, taking into consideration that these processes supply energy of activation for the numerous specific biochemical reactions. Periodic as well as non-linear oscillations emerge in the processes of ROS metabolism, but they decay without re-priming with periodic external signals. Hence, for the effective ROS production the organism should be «sparked» from the outside. «Sparks» may come in the form of air- or hydro-ions (external $O_2\bullet^-$), or by virtue of ROS generation in its aqueous medium by high energy photons (UV- and lower short-wave range), or by beta-particles produced by ^{14}C and ^{40}K , that represent natural radioactivity in all the organisms.

Oscillations that arise in the course of ROS metabolism in the organism, and that in their turn determine and/or modulate the rhythms of biochemical and physiological processes are more or less dependent upon certain external oscillators, in particular upon oscillations of external EM- and magnetic fields. ROS reactions may be very sensitive to their influences, because they are intrinsically the processes of electron transfer in electron-excited media. Such processes, as it follows from the current concepts of the physics of non-linear autostochastic systems are highly sensitive to weak resonance interactions.

Let us consider now how ROS can regulate biological functions at the level of the whole organism. It is well known that blood neutrophils can efficiently generate ROS, which in this case are considered to be used for virus and bacteria «burning out». However, it turns out that lymphocytes and trombocytes, that do not participate in direct elimination of microbes also produce ROS. Fibroblasts, endothelial and smooth muscle cells also possess highly active ROS-generating enzymes. ROS production by connective tissue, to which both blood and «ordinary» connective tissues belong is of particular interest in the light of pre-

sumed energy-informational role played by ROS metabolism. ROS are generated not only by cellular elements of connective tissues, but also by extracellular proteins (though in the latter case at much lower rate). Plasma proteins and collagen become sources of ROS due to their glycooxidation (Maillard reaction). It should be stressed that all the collagens and many plasma proteins have fibril helix structure and are able in principle to transfer EM-waves for long distances. It is interesting to speculate that extracellular connective tissue elements perform besides their structural function another important role in all the organisms – the role of channels for information transfer that join together all the tissues and organs and that also expose to the periphery (say, in the form of acupuncture points). Cellular elements of connective tissues play in this case the role of re-translators, decoders and amplifiers of the incoming signals. Needless to say that all the living things possess connective tissues or their analogs even if they are devoid of blood and nervous systems.

If ROS play such a fundamental role in vital functions of all the organisms, they should play it throughout the evolutionary process. But it is a common knowledge that free oxygen appeared due to photosynthetic activity of green plants, and that the long period of living forms evolution was anaerobic. It should be pointed out that this «knowledge» is just the plausible speculation, while the direct experiments demonstrate now that under the influence of such common factors as sound, filtration, freezing-thawing, etc., water may be broken down to hydrogen atoms and oxygen radicals, the latter recombine to form hydrogen peroxide that eventually gives birth to molecular oxygen. Estimates show that the rates of these reactions are such as to provide atmospheric oxygen building up to concentration similar to the current level within only several hundred thousands of years. If so, than the development of organic life on Earth was taking place in the presence of free oxygen and its reactive species from the very beginning. Needless to say that the structure of the processes of abiogenic ROS metabolism was under the control of the external EM- and magnetic fields of cosmic and terrestrial origin. Undoubtedly, the processes involving ROS are not exclusive «antennas» for external regulatory signals. However, if for some reasons these processes deteriorate or fade away in the particular individual living system, its internal informational flows may suffer to such an extent that it loses its integrity and ability to receive external information by any other means.

PROBABLE INVOLVEMENT OF REACTIVE OXYGEN SPECIES IN THE REGULATION OF THE OXYGEN DELIVERING FUNCTION OF BLOOD

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Free radical oxidative reactions generating electron excited species are continuously running in living organisms. Relaxation of electron excitation may be followed with low-level luminescence. A well known example of such processes is chemiluminescence (CL) that accompany the respiratory burst (RB) in neutrophils. RB in neutrophils is induced by alien particles, such as microbes, and is characterized by many-fold intensification of reactive species (ROS) generation.

Neutrophil CL is usually studied in the suspensions of isolated cells or in highly diluted blood. However, using highly sensitive photon detectors, we managed to demonstrate low-level luminescence of non-diluted human blood especially of blood of heart ischaemic disease patients. Photon emission intensity may be strongly amplified by addition of CL indicators such as luminol (LM – a probe for $O_2\bullet^-$, H_2O_2 , $OH\bullet$, OCI^-), or lucigenin (LC – a specific probe for superoxide radical, $O_2\bullet^-$) to blood. The levels of LM-dependent CL (LM-CL) in fresh blood of healthy donors in the absence of neutrophil activators usually slightly increases after LM addition and then declines to background values. On the contrary, LC-CL intensity in such blood rapidly rises up to values many-fold exceeding that of background and does not decline for many hours. CL patterns in 8-fold and more diluted blood and in purified neutrophil suspensions are very different from those of non-diluted blood: LC-CL is very low, while LM-CL intensity after neutrophil stimulation is much higher than in non-diluted blood. CL pattern in non-diluted blood depends upon a particular donor – in some donors' blood LM-CL levels may be close to that of. In cases of inflammation and in ischaemic disease patients' blood LM-CL may even highly exceed LC-CL.

High intensity of LC-CL in fresh non-diluted healthy donors' blood indicates that leukocytes, and in particular neutrophils continuously generate $O_2\bullet^-$. As more than 99% of oxygen in blood is bound to hemoglobin, leukocytes can get it only from erythrocytes. Interaction of white and red cells in blood may be under the control of various factors, it may depend upon blood state and may change under pathological conditions. Taking this into consideration we studied the effects of passive blood aeration vs anoxic conditions upon LC-CL and LM-CL. LC-CL levels and dynamics were the same in aerated blood and in blood isolated from the air. On the other hand, LM-CL begins to increase after addition to blood of neutrophil activators only in the aerated blood. However, when LM-CL intensity reaches some particular level, cessation of blood contact with the air does not significantly change the time course of LM-CL development. Thus, blood contact to the air is needed presumably only for the process of RB initiation, while after its «flaming up» it may be produced due to oxygen supplied by erythrocytes. We suggested that the «air ions» -- $O_2\bullet^-$ present in the ambient air,

may play this priming role. The importance of ROS present in the air for the RB was demonstrated in the following experiment. 10-12 hours after RB initiation in the passively aerated blood LM-CL in it declines nearly to the background values. Transient and weak elevation of LM-CL may be induced by passing 1-2 ml of the air through «exhausted» blood. However, 10-15 min after blood had been bubbled with only 10-50 mkl of O_2 obtained from 3% H_2O_2 during its decomposition the new intense wave of LM-CL was generated that lasted for many hours. It is most probable that the traces of $O_2\bullet^-$ in fresh O_2 are playing the triggering role for RB reinitiation.

LC-CL dependence upon oxygen supply from erythrocytes in non-diluted blood allowed us to observe a new phenomenon concerning physiological function of CO (carbon monoxide, coal gas) in oxygen supply to cells and tissues. It is known that in spite of high CO toxicity when it is present in the inhaled air this gas is produced in the organism as a normal product of the ubiquitous enzyme heme-oxygenase. CO as well as NO (nitrogen oxide) are considered to regulate the activity of the heme-containing enzyme, guanylate cyclase. The latter produces cyclic GMP – the regulator of blood vessel tonicity. However, this hypothesis overlooks that hemes are much more abundant in hemoglobin and that CO affinity to hemoglobin 220-fold exceeds that of O_2 . Thus CO generated by heme-oxygenase should in the first place stick to hemoglobin of erythrocytes. We have found that if several microliters of CO are passed through non-diluted blood a strong elevation of LC-CL is observed. On the contrary, when CO is passed through the suspension of isolated neutrophils both LC-CL and LM-CL intensity declines presumably due to blockade by CO of heme-containing enzymes responsible for ROS production. Sharp elevation of LC-CL after CO passage through blood indicates that this gas does not just binds to free hemoglobin molecules, but that each binding event triggers O_2 -heme dissociation in many other hemoglobin molecules.

In conclusion our results demonstrate that 1) neutrophils may have at least two different modes of ROS production revealed differentially by LC-CL and LM-CL; 2) neutrophils continuously generate ROS from oxygen supplied by erythrocytes in fresh non-diluted blood of healthy donors. We speculate also that endogenous CO stimulates the bursts of O_2 liberation by erythrocytes, that is needed for operative oxygenation of tissues with oxygen, and, in particular, for the intensification of ROS production by neutrophils, that is mirrored by LC-CL intensity elevation.

THE NEW METHOD OF BLOOD ANALYSIS – ESR-GRAPHY – REVEALS NONLINEAR DYNAMICS IN THE BEHAVIOR OF WHOLE BLOOD OUTSIDE AN ORGANISM

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Recently we have suggested a new test for blood investigation as of a holistic, non-equilibrium, biologically active system. The method represents a development of the widely used diagnostic test ESR («erythrocyte sedimentation rate», or «erythrocyte sedimentation reaction»). In our test the position of red cells/plasma interface is registered for example, each 30 sec that allows to analyze the dynamics of the process of red blood sedimentation. The process of red blood sedimentation turned out to be essentially non-monotonous: red cells/plasma interface moves with numerous accelerations and decelerations. The plots of the dependence of sedimentation rate vs. time of blood indwelling in the pipette (ESR-graphs) reflect the individual features of blood of each particular donor and their changes in the diseased states .

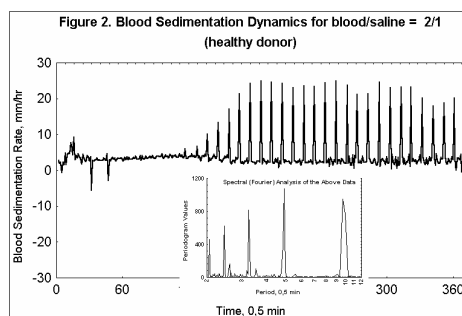
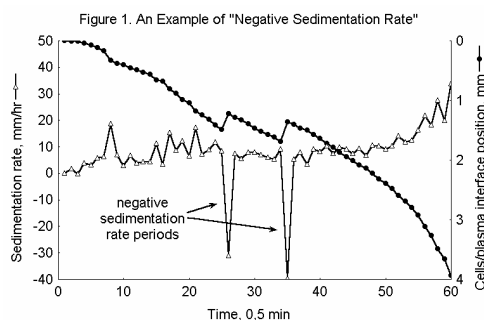
We constructed the devices for automatic ESR-graphy in several blood samples simultaneously. These devices allow to record the ESR-graphs with high precision and over any chosen periods of time. Vertically installed pipettes filled with blood are evenly illuminated with the light-diode sources over the whole height and tranmetted light is received by precise CEDs or the video-camera, coupled to a PC. The device sends information of the position of the boundary between relatively transparent plasma and optically dense blood to the computer each 30 sec or at any other time dwell. The device equipped with video-camera allows to observe all the capillaries in real time at the screen of the monitor. During the experiment it is also possible to observe the progress of blood sedimentation on the on the ESR-graphs which may be called out by an operator. After the experiment ESR-graphs as well as numerical data are stored in the archive and may be printed out at any time.

The results obtained with this equipment demonstrate non-monotonous character of the rate of red blood sedimentation; as well as several macroscopic stages in the whole processes. Amplitude and frequency of oscillations, duration of each stage are characteristic for blood of each particular donor. As data are saved in the data bank, quantitative analysis of them is possible. It allows to register the changes in the ESR-graphs in the course of patients' medical treatment. Possibilities are also open for the development of new diagnostic procedures, such as studies of particular drugs and other factors effects upon blood sedimentation dynamics of a particular person.

Our preliminary results had already revealed several peculiar phenomena in sedimenting blood. First, in many cases the unexpected «negative rates of sedimentation» were registered at the initial stages of the process indicating of the upward movement of a cell pile (Fig. 1). Second, low frequency (3-10 milliHz) oscillations were developing in blood moderately (10-

40%) diluted with isotonic solution. While in healthy donors' blood these oscillations were emerging after lengthy «latency» phase (dozens of minutes and more), and they were highly periodic and were lasting for many hours (Fig. 2), in patients' blood oscillations emerged much faster, sometimes immediately (depending on the disease ethiology and the gravity of a person's state), they were more chaotic and disappeared earlier.

The nonlinear dynamic behavior of blood is hardly explained in the frame of standard models describing the process of erythrocyte sedimentation in whole blood as a combined effect of sedimentation of individual cells and of their aggregates in the viscous medium. The phenomena of «negative rate of sedimentation» and rhythmic oscillations of the interface urge us to reject standard models based on the Stocks law. The behavior of sedimenting blood reflects, on the one hand, mutual interactions of red cells that associate in a 3D-network constructed of the so called «ruleaux» or «piles of coins» threads. Breaking down or shrinking of several or even one thread should be followed by a cascade of collapsing of several other threads, and this is observed as a downfall event of the interface. Then the system may rest for some time in a quasi-stationary state before the new cycle evolves. From this point of view the «negative rate of sedimentation» may be tentatively explained as the network swelling. On the other hand, white cells, as some of our observations suggest, also play a significant role in dynamic process. White cells need oxygen for their survival, and erythrocytes are the only oxygen source under the condition of ESR measurements. The major part of white cells is normally located at the top of the red cell pile, but as our observations show they from time to time immerse into the red cell mass, «breath» there and again dissociate from erythrocytes. Highly periodic dynamics in the healthy donors' blood shows that white and red cells interactions are well organized. Under pathological conditions this organization is distorted to a more or less extent. We suggest that the process of blood cells sedimentation reveals the active reaction of blood, as a surviving tissue, upon such stress factors as hypoxia, hypodynamia, action of gravitation, contact with the alien surface of glass. The parameters of this reaction depend upon the metabolic potential of blood, the functional state of all is cellular and plasma elements, and in a complex they reflect the physiological state of the individual. Thus, ESR-graphy may provide significantly more information of patients' state than the usual ESR test. Studies of blood sedimentation dynamics will allow also to get better understanding of the physiological as well as of physical-chemical processes that take place in blood – a surviving tissue outside an organism.



KIRLIONIC CORONA SPECTRUM

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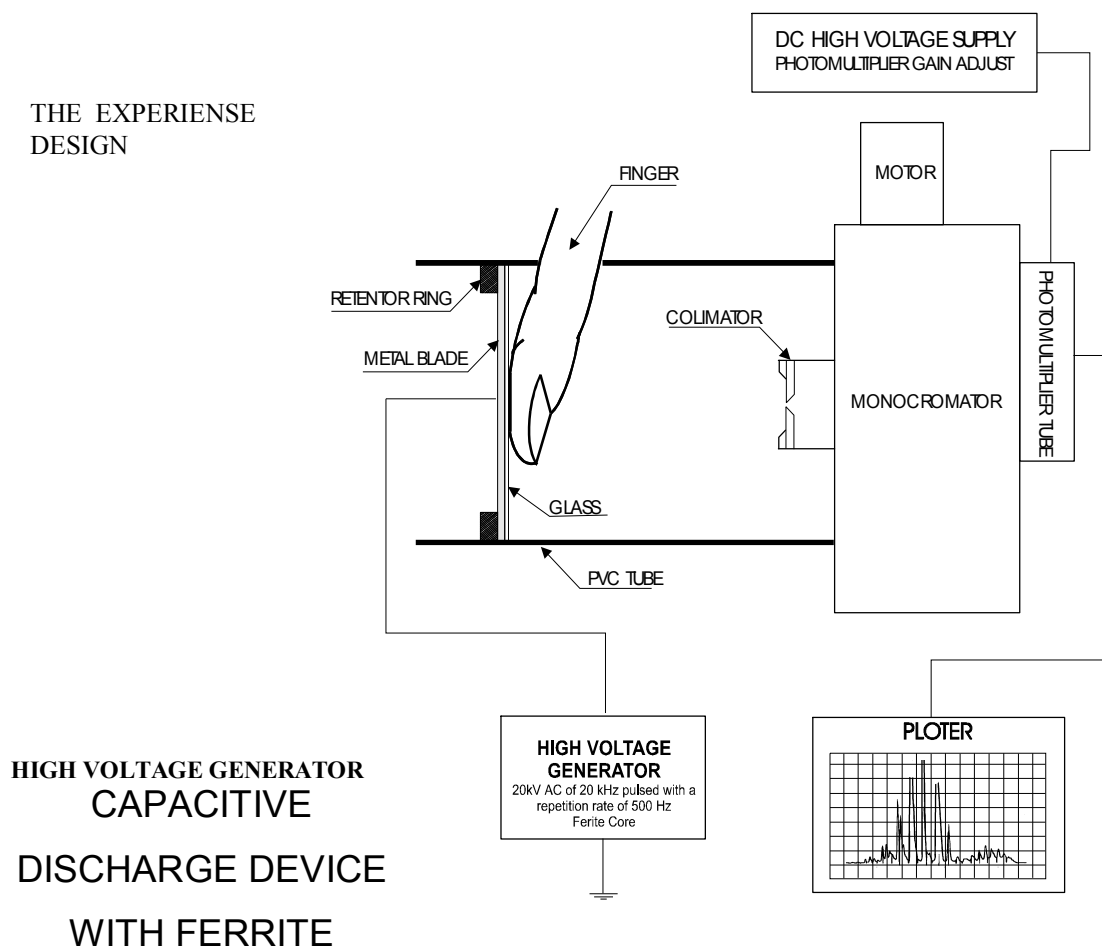
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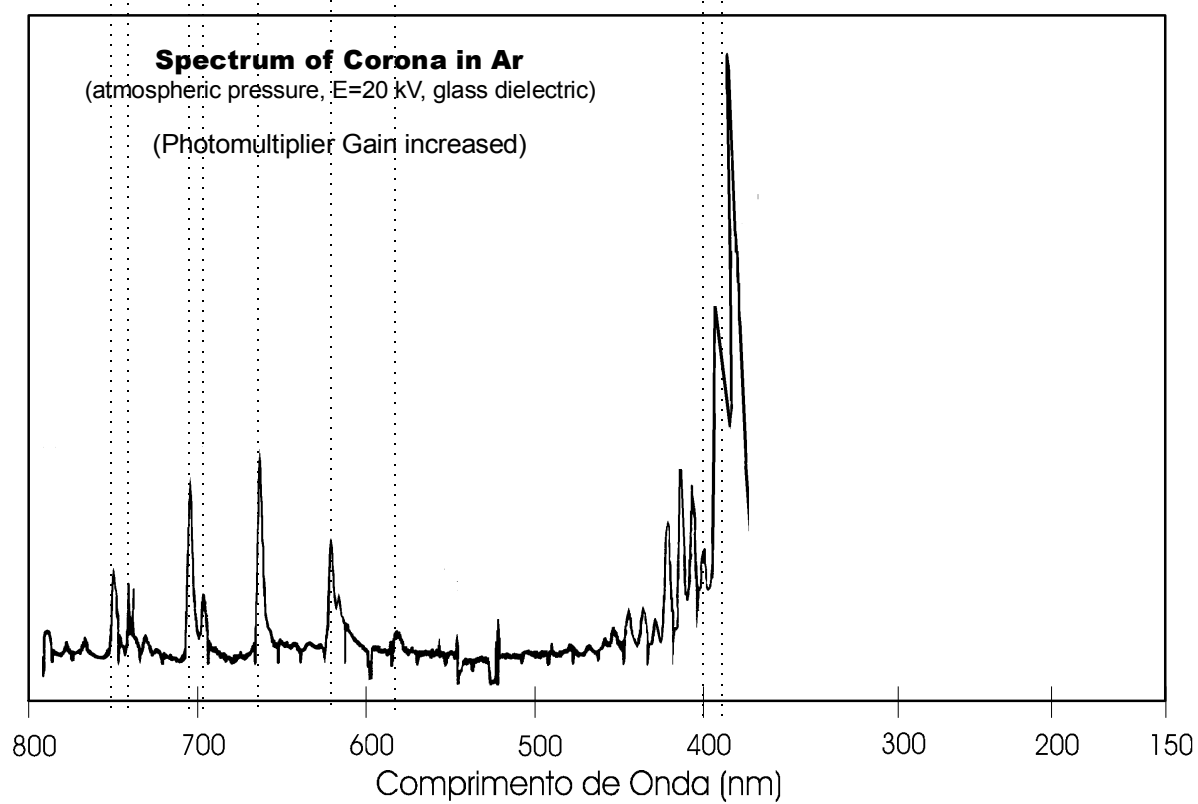
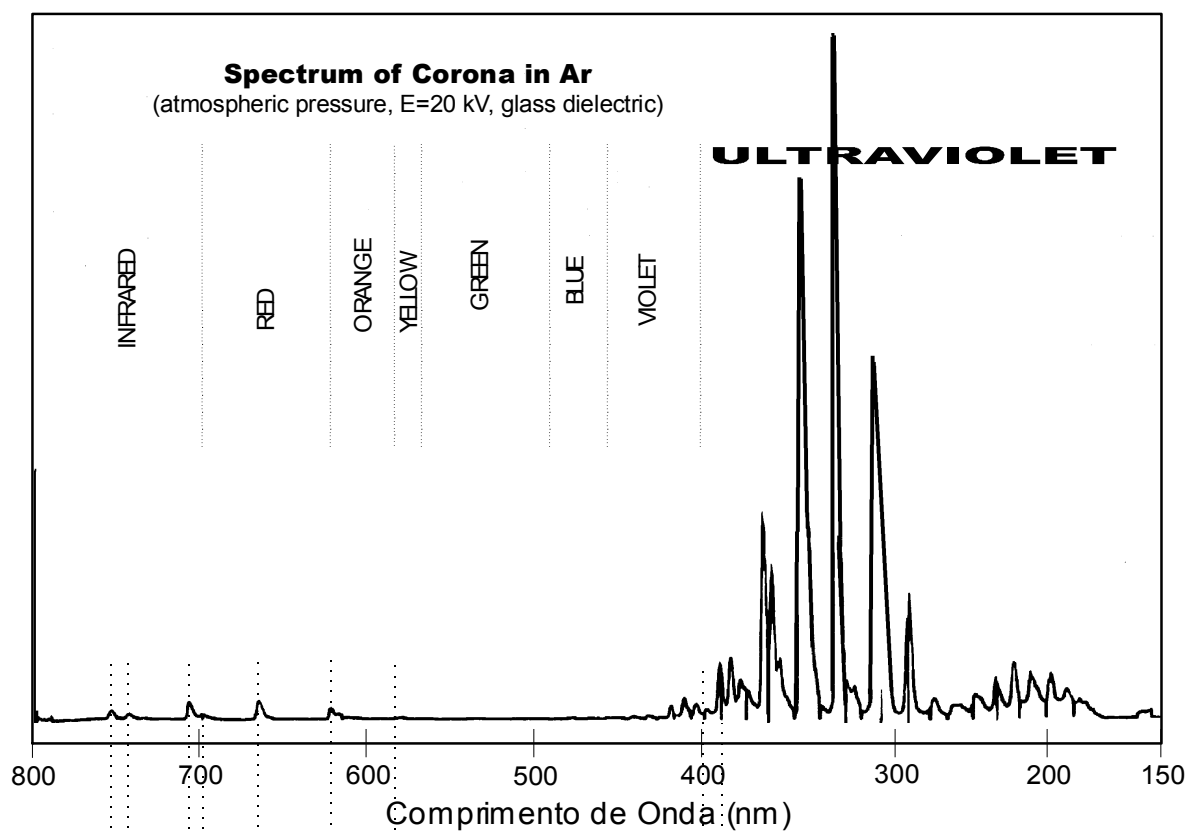
ABSTRACT

In Kirlian photography it is quite important to know the real spectrum of the CORONA radiation. So it is possible to optimise the devices design, seeking for better operational parameters, and also to develop new technologies. Thus the author, had conducted some spectral experiences with Kirlionic Corona at the Institute of Physics and Department of Electrical Engineering at the State University of Campinas (UNICAMP) - São Paulo State - Brazil. The results was very clear and helpful to understand the Kirlian Techniques and to avoid drawbacks in the instruments designs. The radiation spectrum emitted by the Corona in similar conditions to the Kirlian Photography presented a great amount of Ultraviolet Radiation (UV).

THE EXPERIENSE DESIGN

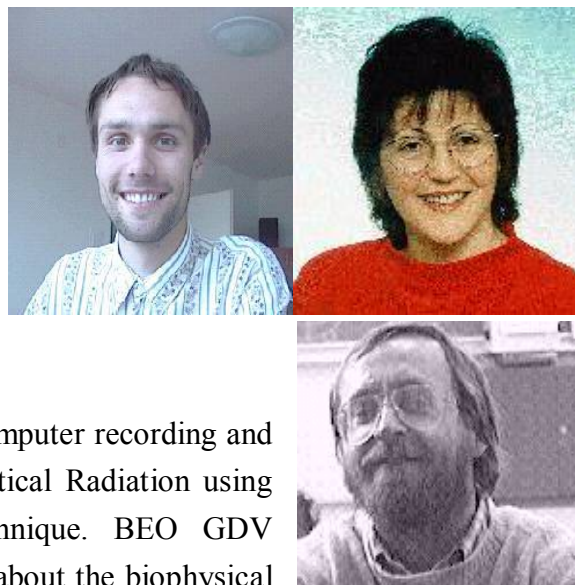


RESULT: THE KIRLIONIC CORONA SPECTRUM OBTAINED



CURRENT RESEARCH IN MACHINE LEARNING FROM BEO-GRAMS

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Extended Abstract

We present the ongoing studies with the computer recording and visualisation of the Biological Emission and Optical Radiation using the Gas Discharge Visualisation (GDV) technique. BEO GDV technology provides possibly useful information about the biophysical or psychical state of an object or a patient in a form of BEO-grams. The problem is how to interpret these BEO-grams (processed GDV images) and reveal the detected information in order to make use of it. We try to alleviate this problem by using machine learning technology which can transform training data into knowledge. Machine learning has shown to be successful on classification and prediction tasks in many real domains. Machine learning technology enables induction of general descriptions of set of preclassified examples and applying that descriptions to new data. In our research we are experimenting with different machine learning algorithms: Assistant-R, Assistant-I, (Cestnik et al., 1987), the naive Bayesian classifier and C5, that is an improved version of C4.5 (Quinlan, 1986).

Current studies with the Crown-TV

In our study we have developed, for practical reasons (performing experiments on different machines), a new piece of software that enables use of the Crown-TV with built-in video-input. With this program we have speeded up and improved the process of image acquisition.

Image analysis requires to formulate and describe visual information, such as what type of image features we can extract from the images, what properties those features are expected to have, and how they are related to each other. We use the GDV Analysis software developed by Korotkov's team and provided together with the Crown-TV equipment to analyse BEO-grams.

Currently we are performing several studies with the Crown-TV:

- **Diagnosis:** We are trying to discover the relation between the human BEO-grams and the diagnosis determined by an extrasense therapist. The patient's GDV images were recorded on his/her first visit to the physician specialist. The set of data from different patients with obtained image features and the diagnoses were used as input to the machine learning algorithm. Automatically derived diagnostic rules will be verified on separate 'test' cases.

- **Magic bowls:** We are measuring the effect of glass bowls, coded with a certain information by Vili Poznik from Celje, Slovenia, on the human aura and on the water. We are performing the experiment in a group of 30 people. Current results show the significant effect of holding the bowl in a hand for few minutes.
- **Color T-shirts:** We are measuring the effect of color T-Shirts, developed by dr. Tom Chalko from Melbourne, on the human aura. Current results show the significant effect of wearing the shirt for only few minutes.
- **Pyramids:** We are measuring the effect of pyramids on the human aura and on the water. Current results show the significant effect of the pyramid that is positioned near the person.
- **Water drops:** We are trying to distinguish different kinds of water: ordinary tap water, water from various springs, water charged by a healer and water charged with various vibrations.
- **Natural energy source:** We are measuring the effect of a natural energy source in Tunjice village near Kamnik in Slovenia on the human aura. Current results show the significant effect of walking near the natural energy sources for half an hour.
- **Double coronas:** We already recorded several persons that have on at least one finger obvious double corona and the recordings were repeatable. Besides, by recording coronas of some hundreds of persons we noticed that occasionally there appears a slight tendency of double corona (which however could be ignored as noise). There is no physical explanation for this phenomenon. We talked to one expert in gas discharge, and besides being confused he said that there should be some carrier of the charge on that destination from the finger. Our current hypothesis is that the Kirlian camera is able to record only the first-level etheric body while the others are too subtle. Only in special cases, when a person have a special state of mind with emphasis on mental or emotional body, the camera is able to record this. Indeed, from our experience as well as from the experience of some other researchers from Russia, Finland, and Canada, it seems that this effect shows one of the following. The person:
 - ❑ is under stress,
 - ❑ has some psychic problems,
 - ❑ took drugs or drunk alcohol or even inhaled bensin,
 - ❑ has very disordered health state,
 - ❑ is in some other way in disharmony (such as very mentaly oriented person),
 - ❑ is spiritually developed and is able to amplify other etheric levels.

One of our colleagues always had normal (single) coronas. Once he recorded double coronas on his fingers after one short treatment with color essences. After an hour the double corona disappeared and additional treatments with essences didn't show this effect anymore.
- **Recording coronas of apples:** We are trying to determine, whether Kirlian camera can record any useful information by recording coronas of apples. We decided to record the coronas of peels that were cut off from apples in a standardized way (four circular peels with diameter of 18mm, cut off from equatorial part of the apple skin and all equally oriented). We

used four sorts of apples of two different ages (one year difference). The central parts of coronas were manually deleted in order to adapt the records for the available GDV Analysis software. We tried to solve three different problems: classification of apples according to sort (four classes, 40 training examples of each class), according to age (two classes, 40 examples of each class), and according to the sun/shadow part of apple (two classes, 32 examples of each class). The training data was used with different learning algorithms. The average information score shows that parameters contain useful information for the first two problems while for the problem of separating sun/shadow sides of the apple there is practically no useful information. Among the three classifiers the naive Bayesian classifier achieves the best results.

Results

- The preliminary results show that machine learning algorithms can be used to detect whether the GDV records, the BEO-grams, described with a set of parameters, contain any useful information or it is only noise. In the case of apples it was clearly demonstrated, that for the two problems (determining the sort and the age of apples) the parameters that describe coronas of apple peels contain useful information while for the sun/shadow problem the parameters are not better than noise.

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PSYCHOPHYSIOLOGICAL CHARACTERISTIC OF SEASONAL WINTER DEPRESSION, ROLE OF LIGHT FACTOR

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Key words: seasonal winter depression, hemisphere lateralization, bright light

The purpose of this study was to examine language lateralization in S. patients when psychopathology was high and in remission after light treatment and in summer. We used dual task paradigm (manual-verbal interference) and dichotic listening procedure to infer hemispheric language lateralization. In winter depressed SAD subjects show symmetrical or inverted manual interference levels. Control showed asymmetrical pattern, great interference in the right-hand (left hemisphere) condition for verbal current task. Difference between

patients and controls was due to significantly ($P=0.003$) greater left hand tapping decrement in patients compared with controls. There was significant ($P=0.05$) negative correlation between differences in right - left hand tapping decrement and Hamilton Depression Rating Scale scores in depressed patients. Light treatment had no effect on either left or right tapping decrement in controls, but significantly increased left hand tapping decrement in patients. There were no significant differences in reduction in left and right hand tapping between patients and controls in summer. Dichotic asymmetry was not diminished in depressed patients. Dual task and dichotic listening are associated with activity in different brain regions. Shift in manual-verbal interference seems to be associated with change in frontal asymmetry. Thus, in SAD patients depression seems associated with frontal right hemisphere functions, but changes in the arousal status of that hemisphere rather than neurophysiologic disorder.