MONITORING ENERGY LEVELS DURING CAM TREATMENT WITH GDV TECHNIQUE

1 author:

Konstantin G Korotkov
St Petersburg Universities
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K. KOROTKOV

Abstract

In the history of Science developing of a new instrument always resulted in new understanding of Reality. Microscope, telescope, X-rays, tomography, ultra-sound - without these instruments modern science is powerless.

Now a new instrument came to being - Computerised Gas Discharge Visualisation technique, based on well-known Kirlian Effect. Modern scientific means: electronics, optics, CCD matrix, image processing with powerful computer - created a new base for introduction this technique into scientific practice. This is a first tool that let us to visualise the distribution of human's fields, and to make it easily, reproducibly, graphically and, the last but not the least, inexpensive.

GDV technique proved to be effective in quick diagnostic evaluation of the health and psycho-emotional state of patients in conventional and complementary medicine. This coupled with the ability to identify the grounds or indications of developing diseases, monitor the influence of different drugs, medicine, exercises, meditation is of great importance. Promising results were obtained in express-diagnoses of cancer by evaluating the dynamic of changes of the pictures. In the paper technical background, examples of experimental results and conceptual scientific approaches are presented.

INTRODUCTION

Complimentary, energy, vibration medicine, various forms of healing are inevitably becoming one of our life issues. Serious debates on the efficiency of the given "non-chemical" methods of the influence on the organism are gradually coming down due to the statistically valid clinical data[1], conceptual approaches and practical applications of acupuncture, homeopathy, Systematic Medicine[2] and low-energy treatments[3]. The process of CAM treatment may be very complicated having several different phases with often worsening of symptoms in the process of treatment and slow improvement of overall patient's condition[4]. During this process it is very important to have means for objective monitoring of patient's condition. This may help both in correction the

treatment process and in demonstrating the positive effect of treatment to the patient. The latter would help to encourage the patient in effectiveness of the CAM therapy that lead to better results due to the influence of positive mood and belief of a patient. Surprisingly, but in modern medicine we have quite a few instruments which allow constant monitoring of patient's condition in non-invasive, non-expensive way. Mostly in use are instruments for monitoring the activity of a cardio-vascular system. Other means may be extremely useful for analysis but for the monitoring purposes they are either invasive (X-ray, ultrasound, blood tests) or very complicated and expensive (computer tomography). New technique of human functioning analysis – Gas Discharge Visualization (GDV) Technique based on quantum biophysical approach offers a set of unique opportunities for CAM practice.

METHOD

The GDV camera is presently the state-of-the-art in bioelectrography[5]. It utilizes a high frequency (1024 Hz), high-voltage (10 kV) input to the finger (or other object to be measured), which is placed on the electrified glass lens of the GDV camera. Because the electrical current applied to the body is very low, most human subjects do not experience any sensation when exposing their fingertip to the camera. In practice, the applied electric field is pulsed on and off every 10 microseconds, and the fingertip is exposed for only 0.5 seconds. This causes a corona discharge of light-emitting plasma to stream outward from the fingertip. The light emitted from the finger is detected directly by a CCD (charge-coupled detector), which is the state-of-the-art in scientific instruments such as telescopes to measure extremely low-level light. The signal from the CCD is sent directly to a computer, and software analysis is done to calculate a variety of parameters that characterize the pattern of light emitted, including brightness, total area, fractality, and density. The software can also provide color enhancement to enable subtle features such as intensity variations of the image to be perceived. The underlying principle of camera operation is similar to well-known Kirlian effect[6] but modern technology allows to have reproducible stable data with quantitative computer analysis. Purposeful investigations allowed to find the parameters, optimal from the point of obtaining the information on the biological object state with the minimum of invasivity. These findings are described in more than 200 research works in the international scientific literature, 12 patents, 6 books in English, French, German, Italian, Russian, and Spanish.

This biophysical concept of the principles of GDV measurements is based on the ideas of quantum biophysics[7]. This is further development of well-known ideas of A. Szent-Györgyi about the transfer of electron-excited states along the chains of molecular protein complexes[8]. This

transfer is provided by feeding mitochondria with electrons. Mitochondria, in turn, convert energy conserved by electrons into ATP energy. In this form, energy may be utilized by organisms to perform work. Therefore this is a concept of the biophysical mechanism of energy storage and transfer in the biological organisms. This idea of energy transfer is the basis of traditional oriental medicine, but still is not accepted by the western scientific paradigm. Electron-excited states may be stored in any group of albumin molecules, i.e. in any system and organ of our body, and in an appropriate moment may be transported to the particular place needed to generate energy and perform work. The most probable transport path is through connective tissues and bone marrow, but this theory needs additional exploration.

Therefore, the GDV technique is measuring the level of functional energy stored by the particular systems of an organism. This level is defined by the power of the electron-excited states and the character of their transport along the chains of albumin molecules. The level of functional energy is correlated with health status, but is only one many of the components that define health. It works together with genetic predisposition, psycho-emotional states, environmental loading (food, water, air, ecology) and other factors. This approach may be associated with the oriental notion of the energy transfer along meridians.

In assessing human subjects, the BEO-grams (GDV emission patterns after computer processing) of all ten fingers are made and analyzed. A typical measurement from a normal healthy subject is shown in Fig. 1. All 10 BEO-grams from the fingers then undergo analysis via another software program creating the model of Energy Field around the body and the diagrams showing the energy distribution in the various organ systems (fig.2, 3). This is based on the map correlating the human fingers with different systems and organs of the body in accordance with Traditional Chinese Medicine (TCM) approach. This map was first proposed by Peter Mandel[9] in Germany and then further developed by Korotkov. Another software analysis computes the relative energy flow in the 7 chakras. Fig. 4 depicts typical data obtained in the chakra analysis program for a normal health human.

The reproducibility of the GDV patterns of emission and the calculated diagrams is about 10% for human fingers, and about 3% for materials[10]. The 2-3% variability pertaining to materials testing is considered to be random error. However, the 12% variation with respect to human fingers reflects not only standard error, but the fluctuations in the energy dynamics of a living being, i.e., the "flicker of the flame of life."[11] As it is shown in numerous studies, the pattern of emission, which determines the relative energy distribution in the person's organs, remains constant from day to day. That is, each adult displays an "energy pattern signature" in this method of testing.

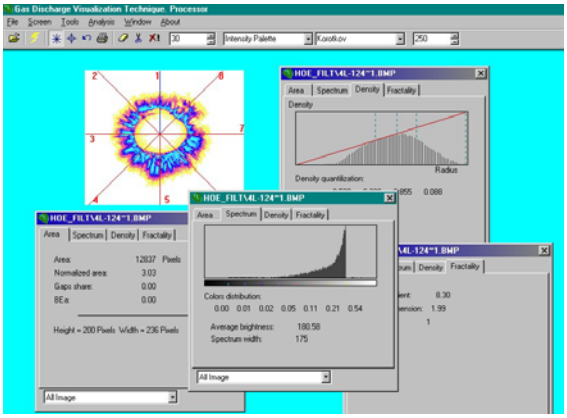

Fig.1. BEO-gram of a finger with calculated parameters.

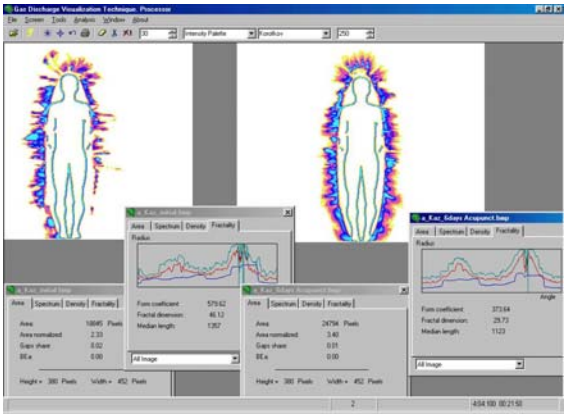

Fig.2. Images of the Human Energy Fields before and after acupuncture treatment with calculated parameters.

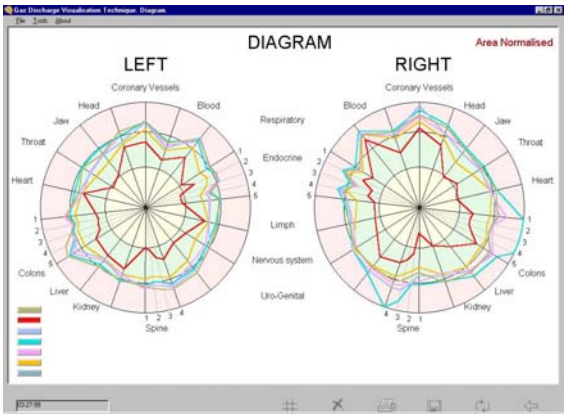

Fig.3. Diagrams showing the energy distribution in the various organ systems.

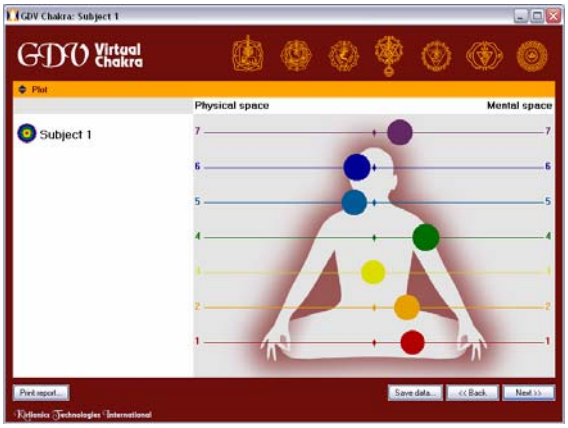

Fig.4. Relative energy flow in the 7 chakras.

At the present moment four main spheres where the GDV technique can bring unique information have been established:

- medicine;
- sport[12]:
- consciousness research[13],[14]
- investigation of water and materials[15],[16]

Let us outline some of the studies in CAM.

GDV APPLICATIONS IN CAM

Scientific research in GDV carried out in medicine revealed correlations of GDV parameters with other measurable characteristics of the organism. Quite a few of such correlations have been found: first of all, with age; with the level of blood pressure and blood formula; with cardio variability indices, and others. Reliable statistical differences of GDV parameters of groups of healthy individuals and groups of patients with various nosologies have been observed.

THE EXAMINATION OF THE BRONCHIAL PATIENTS OF VARIOUS COURSE OF DISEASE[17].

362 patients have been examined at the Clinical Therapy department of St. Petersburg State Medical University n.a. I.P.Pavlov on a clinic treatment: 295 bronchial asthma **(BA)** patients, 20 pneumonia patients, 27 hypertonic and afflicted with the ischemik heart disease patients, 20 patients afflicted with chronicle pathology of the hepato-biliar system (hepatitis, holicistitis).

The afflicted with the Chinese pathological syndromes of “emptiness” and “fullness” differ in the BEO-gram parameters. Among the pneumonia and bronchial asthma patients (BA) the changes in the lower sector of the 5th (little) finger BEO-gram – meridian projection of the respiratory system - were registered. Among the patients afflicted with the heart disease the outburst of glow in the upper sector of the 5th finger BEO-gram – projection of the coronary vessels – was observed. This confirms the possibility of a pathology diagnosis basing on a BEO-gram, according to the meridian projection of the functional systems. Among the BA patients the emission and form coefficients of the BEO-grams were considerably lower than those among the healthy. The increase in the severity of BA was followed by the decrease of these parameters and correlated with the dysfunction of the lung perfusion according to the scintigraphic data, prothrombin indices and thrombin time. These data give evidence for the considerable role of the micro-circulation dysfunction in the pathogenesis of the BEO-gram changes. With the dysfunction of perfusion of one of the lungs the decrease in the parameters of the 5th finger BEO-gram in the corresponding area was

registered. Among the patients afflicted with chronicle pathology of the hepato-biliar system (hepatitis, holicistitis) the correlation of the BEO-gram parameters dynamics (emission and form coefficients) with biochemical markers of the liver functional state during the monotherapy with the galsten homeopathic preparation was found.

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

There were registered different time periods of the energy-informational and clinic-pharmacological effects of broncholitic and anti-tonsillitis medicines among the patients with the combined pathology: BA and heart disease. The most positive energy-informational effects of the acupuncture treatment were observed among the patients with the syndromes of “emptiness” and a small area of the BEO-gram. Fig.2 demonstrates example of patient’s Human Energy Field (HEF) Beo-grams with calculated parameters before and after 6-days course of acupuncture.

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

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

ENERGY STATE CHANGE DUE TO AN ACUPUNCTURE TREATMENT[18]

In this study, 33 randomly-chosen, clinically healthy subjects were utilized in a self- control fashion. Data from MSA-21 and GDV devices were gathered before and after double-blind needling at both true and sham acupuncture points. The study required two visits by each subject for needling at five different acupuncture points, one for true and one for sham needling. Indeed, the GDV instrument passed this test with flying colors and provided much useful adjunct information as well. Both of the MSA-21 and the GDV devices, as seen by the results of this study, can be used to conduct a comprehensive meridian stress assessment and to determine appropriate ways to achieve healthy energetic balance. The GDV instrument was able to distinguish authentic acupuncture needling from sham acupuncture needling. For healthy subjects, the GDV instrument detected a larger response to authentic needling compared to sham needling on the right side of the body relative to the left. This body asymmetry effect could be related to the direction of Qi-flow through the body and the relationship between the mental physical manifestation through the right and left hands.

EVALUATION OF PATIENTS AFTER ABDOMINAL SURGERY WITH GDV[19]

GDV technique application for the investigating of functional state of patients with abdominal surgery in pre- and post operative period have been studied under Russian federal research programs. Bioelectrographic examination was carried out for 96 patients with different abdominal surgical pathology (63 women and 33 men). GDV parameters demonstrated pronounced dynamics with age in the majority of cases. With age increase of GDV Area, a decrease of density and brightness, and flatness of outside contour was statistically significant ($p < 0.01$). This may be correlated with an increase of organism entropy with age. The most significant changes in bioenergy homeostasis took place in an early postoperative period within the first day (Fig.5). A reliable increase of all GDV-gram parameters in comparison with the initial level (the day before operation) was disclosed. These changes were specially pronounced in the first hour after surgery. The degree of changes depends on the extent and character of surgical intervention undergone. Thus, changes of GDV parameters were significantly lower for patients who underwent laparoscopic cholecystectomy than for patients after stomach and intestines' surgeries. The initial values of bioenergy status restored faster for patients who experienced less traumatic surgeries. Most of the GDV parameters restored within 2-3 days, and some – within 3-4 days for patients who had undergone extensive surgeries. GDV parameters for patients who experienced intestines surgeries, i.e. the most difficult

and traumatic surgeries, recovered very slowly. Some of the patients in this group had negative complications in the recovery period.

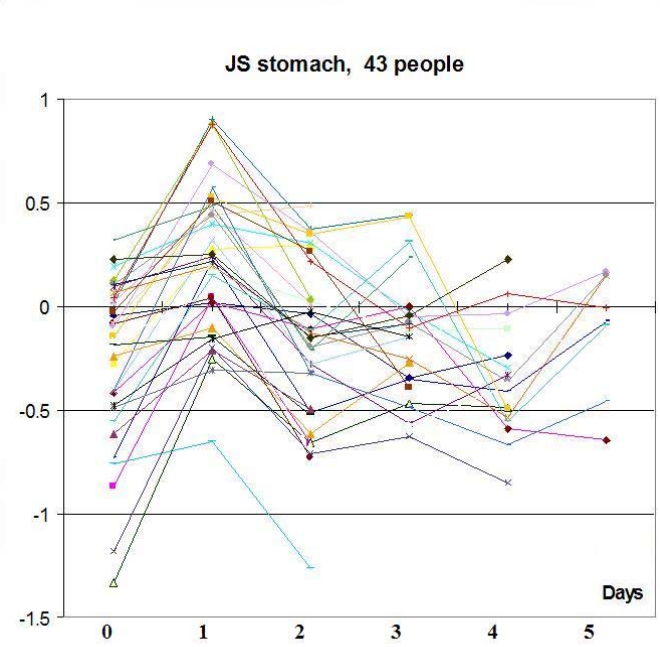

Fig.5. Dynamics of GDV-gram parameters of systems in perioperative period for 43 people. (0 – before surgery, 1 – first hour after surgery, 2-5 days after surgery).

PHYSICAL EFFECTS OF HYRUDOTHERAPY TREATMENT[20].

A typical picture of change of GDV parameters under the influence of medical leeches from many patients examined, an irregular dynamics of change of GDV parameters in the process of leech therapy on the human organism was found. (Subjects were 240 patients, including 56 men (23,3%) and 184 women (76,7%)). This process had several stages, quite typical for a whole series of patients, which allowed proposing a hypothesis on trigger character of observed effects of leeches, which cause specific reactions in the organism of patients. Thus, that involves the change of GDV glow and classical parameters, registered by other techniques.

Fig.6 demonstrates the statistically significant effects of hyrudotherapy treatment to people of different age. As we see from this diagram both increase and decrease of the HEF Area may be observed which in most cases may be interpreted as normalization of energy condition. For more than 85% of people this effect was statistically significant.

This effect was tested in the experiment with white laboratory rats. 10 selected rats of the same breed were randomly divided to two groups. During several sessions for every rat in one group a leach was applied for 10 minutes while for rats in another group 10 ml of blood were pumped out with syringe. GDV parameters from the rat tail were measured 1 and 2 hours after the procedure. As we see from the graphs in the first three procedures the difference between experimental and control groups was statistically significant (the level of variations is about 13-15%) while after a month

there were no difference. This confirms data of multiple observations that leach therapy has significant influence for the people having problems and practically no influence to healthy organisms.

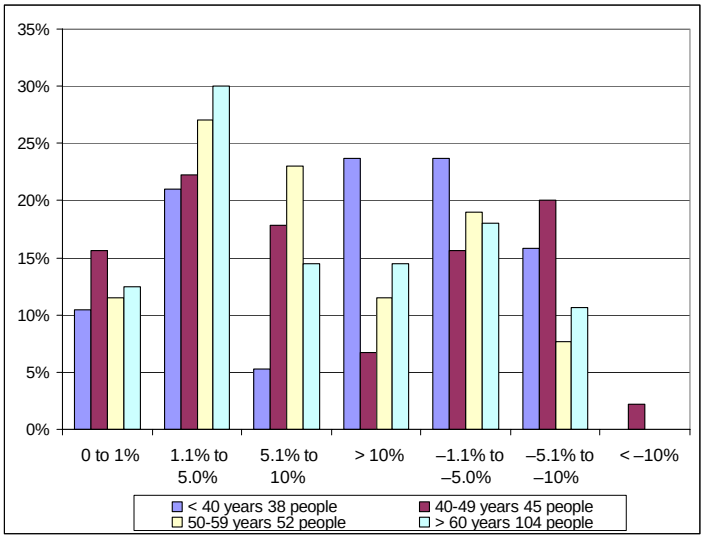

Fig.6. Influence of hyrudotherapy treatment to people of different age.

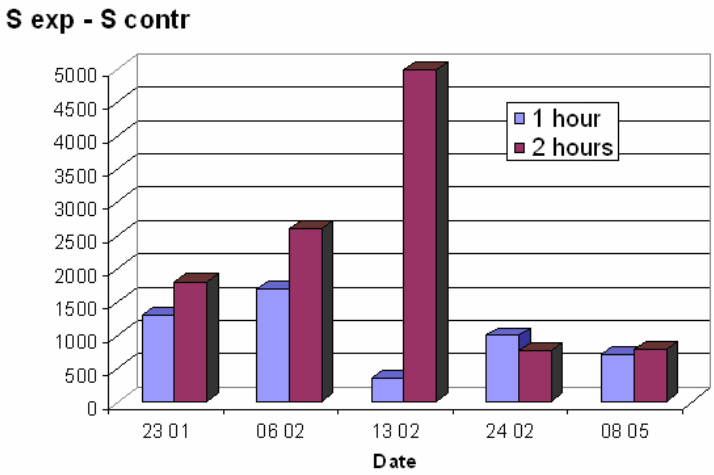

Fig.7. Relative changes of the GDV Area for the control and experimental groups of rats 1 and 2 hours after blood drawing-off for control group and leach sucking for experimental group.

MONITORING OF ONCOLOGY PATIENTS IN THE PROCESS OF TREATMENT[21].

For the statistical analysis the following subjects diagnosed with III stage of cancer 109 subjects of both genders with lung cancer and 140 women with breast cancer were selected; control group consisted of 44 practically healthy people and 54 women with different non-oncological conditions. All patients were diagnosed with cancer by conventional means including biopsy; GDV measures were taken from 10 fingers of both hands before any oncology treatment and 2 and 6 weeks after complex treatment including surgery, chemotherapy, irradiation and CAM psycho-rehabilitation. Blind study design. Statistically significant difference between GDV parameters of oncology patients and non-oncology groups was found for all studied cases. After treatment

statistical trend of GDV parameters towards healthy population parameters was revealed. Example of experimental data is presented at fig.8. The conclusion was that GDV Technique presents objective measures for evaluation of cancer state and monitoring the patient's condition after treatment. The method is easy for application, non-invasive, objective and cheap. From several years of experience a good potential for the development of a method of early evaluation of the probability of potential cancer is clearly seen. This approach should be based on computer data-mining multiparametric comparison with database of nosological cases.

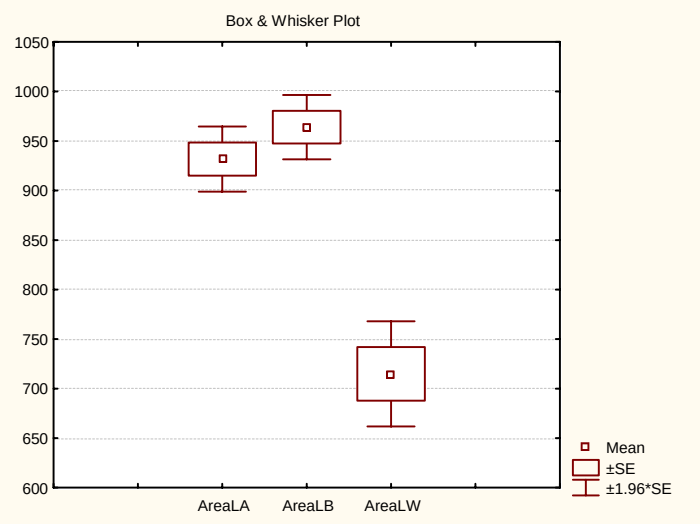

Fig.8. Averaged GDV Areas for the groups of patients with breast cancer before (B) and after (A) combined treatment and group of practically healthy women (W). Data are taken from the finger 5L.

STUDY OF BIOLOGICAL LIQIDS WITH THE GDV TECHNIQUE

The GDV technique enables one to identify specific reaction of antibodies with a complimentary antigen, called agglutination reaction. The technique is based on the registration of dynamics of parameters of blood samples GDV glow in time – from the moment of combination (mixing) of specific components (antigen and antibodies to it) to the moment of completion of their interaction and formation of the so-called immune complexes. As a results of such interaction, physico-chemical characteristics of the investigated material, and consequently, GDV-gram parameters change[22]. Fig. 9 demonstrates the example of GDV blood reaction to different allergens: 1 – initial blood plasma, 2 – blood plasma with egg albumin and 3 – blood plasma with marjoram flower essence. As we see from this picture, there was no reaction to albumin and significant reaction to the flower essence. The technique can be applied for the investigation of nontransparent biological liquids when it is not only difficult, but even impossible to implement the agglutination

reaction in its classical form (visual registration of results); for example, study of blood with the purpose of revealing etiology of human allergies.

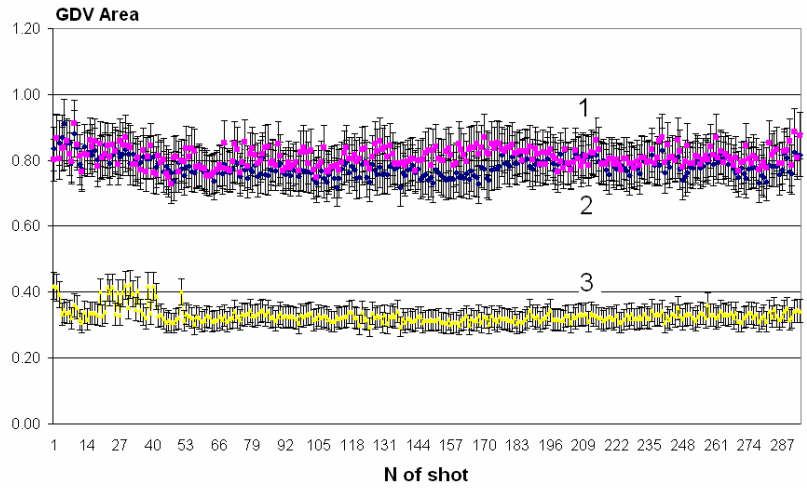

Fig.9. GDV blood reaction to different allergens: 1 – initial blood plasma, 2 – blood plasma with egg albumin and 3 – blood plasma with marjoram flower essence. Every point is averaged on 10 measurements.

Experimental approach to early cancer diagnosis has been developed on the basis of measuring GDV parameters of blood [7]. Comparison of concentration curves of GDV parameters of blood diluted with neutral solution from cancer and healthy patients demonstrated statistically significant reproducible difference between curves. This creates basis for the development of simple and fast technique of non-specific cancer markers in blood by measuring the GDV parameters.

Blinded, randomized assessment of four split samples of homeopathy preparations using GDV technique were conducted in Arizona University[23]. Subjects of studies were four split samples each of 30c potencies of three homeopathic remedies from different kingdoms, Natrum muriaticum (mineral), Pulsatilla (plant), and Lachesis (animal), dissolved in a 20% alcohol-water solvent versus two different control solutions (that is, solvent with untreated lactose/sucrose pellets and unsuccussed solvent alone). GDV measurements were performed over 10 successive images on each of 10 drops from each bottle (total 400 images per test solution per voltage). The dependent variables were the quantified image characteristics of the liquid drops (form coefficient, area, and brightness). Individual remedies showed lower image parameters compared with the solvent controls (fig.10), as well as differences from solvents in fluctuations over repeated images (exposures to the same voltage). As it was shown in this study, GDV technology may provide an electromagnetic probe into the properties of homeopathic remedies as distinguished from solvent controls.

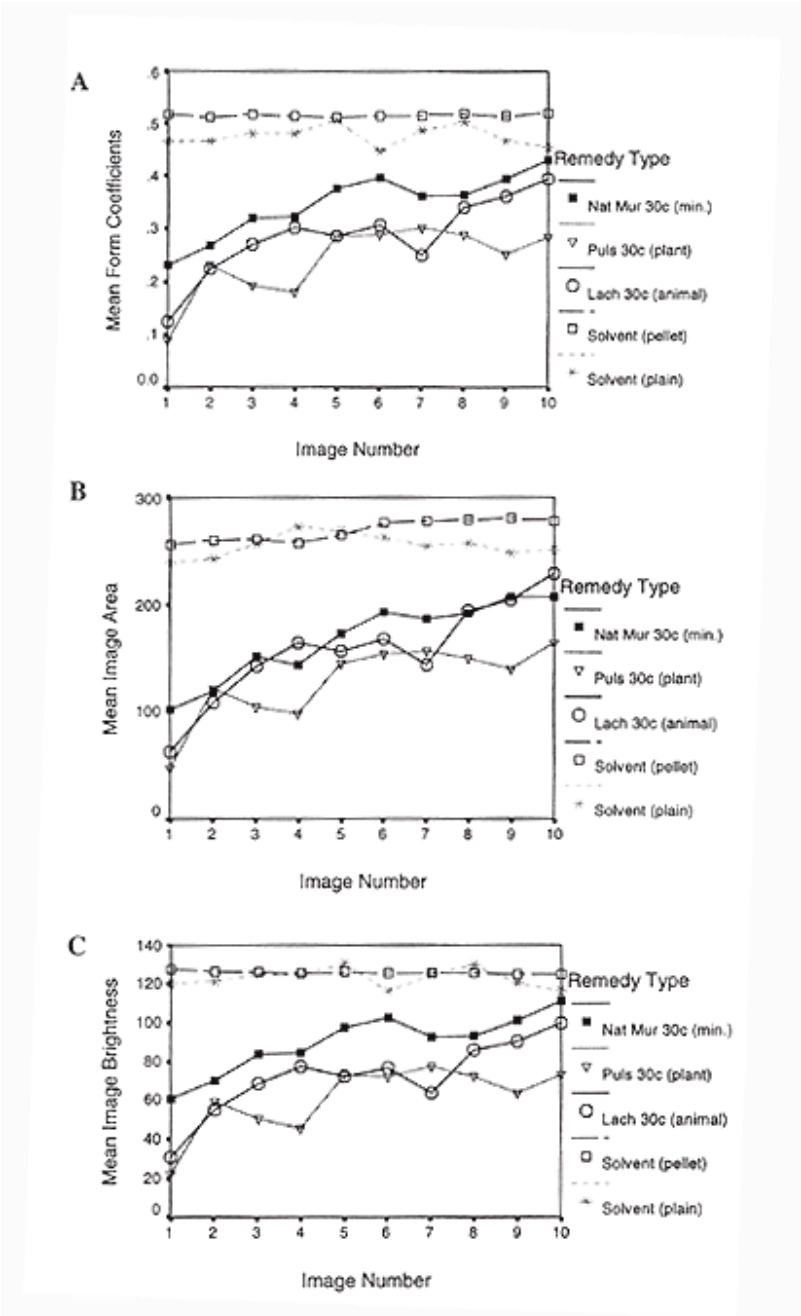

Fig.10. Different GDV parameters of the solvent (upper curves) and homeopathy remedies of 30c potencies of three homeopathic remedies from different kingdoms: Natrum muriaticum (mineral), Pulsatilla (plant), and Lachesis (animal). [23].

CONCLUSION

As we see from the presented data, GDV technique provides simple in use, non-invasive, convenient and objective tool for the human energy condition analysis and monitoring of individual reactions to CAM treatments. This approach is based on rigorous scientific analysis proved in numerous researches in different universities both in Russia, Europe and USA. At the same time the GDV analysis utilizes ideas of ancient wisdom of Traditional Chinese Medicine.

This is a breakthrough beyond Kirlian photography for direct, real-time viewing of the human energy fields. This new technology allows one to capture by a special camera the physical, emotional, mental and spiritual energy emanating to and from an individual, plants, liquids, powders, inanimate objects and translate this into a computerized model. This allows researcher and client to see imbalances that may be influencing an individual's well-being greatly facilitating the diagnosis of the CAUSE of any existing imbalances showing the area of the body and the organ systems involved. One of the greatest benefits to date is the ability to do "real-time" measurements of a variety of CAM treatments for such conditions as cancer to determine which is the most appropriate for the client. The GDV technique is accepted by Russian Ministry of Health as a Medical technology, more than 1000 doctors, practitioners and researchers benefit from using this technology worldwide.

The incredible implications for the diagnosis and treatment of physical, emotional, mental and spiritual conditions with applications in medicine, psychology, sound therapy, biophysics, genetics, forensic science, agriculture, ecology etc. have only just begun.

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