

**PUBLIC JOINT STOCK COMPANY  
HOLDING «EDAS»**

**THEORETICAL AND PRACTICAL  
aspects of the system of integrative medicine  
«NATURAL DOCTOR»**

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## INTRODUCTION: TREATMENT BY HIPPOCRATES

The mankind has been searching for effective methods of treatment and prevention of diseases, unfortunately so far there are no medical technologies, which could provide effective, rapid and safe therapy (with no side effects), not leading to chronic outcome, addiction and "withdrawal syndrome".

In order to achieve optimal health care system and raise its development to a new quality level it is necessary to make professional expertise of the used treatment standards and medicines, which is based on up-to-date achievements of medical science and practice.

Modern medicine that mostly treats the consequences pays insufficient attention to elimination of the causes, which leads to chronic diseases. In addition, personalized approach is rather poor that in clinical practice results in treatment of the disease, not the patient

In order to answer the common question WHAT TO DO? we should look at the background.

***According to HIPPOCRATES: effective therapy is achieved by combined dual treatment of the patient:***

***- by the principle of opposites (allopathy method), where the treatment is mainly aimed at eliminating symptoms (fever, cough, pain, etc.) of diseases;***

***- by the principle of similarity (method of homeopathy), where the treatment is aimed at eliminating multifactorial causes of diseases.***

Ignoring the dual Hippocrates' approach eventually led to the systemic crisis of the world medicine and at the same time to the necessity of searching the turnout of the present situation. Therefore it is logic that over the past decades a number of European and American countries have presented a trend for introduction a dual approach in treatment and prevention of diseases by integration of different though corresponding to each other and the organism scientific methods.

Long-term research in leading clinics of Russia demonstrated the following advantages of the integrative approach:

- Reduction of the daily dose and course of allopathic drugs;
- Reducing the risk of side effects;
- Reducing the risk of drug addiction and the "withdrawal syndrome";
- Increasing efficiency, reducing the time and costs.

Introduction of integrative treatments of acute and chronic diseases requires the need to consider environmental characteristics of the residential area and the individual features of the organism.

Sharing allopathic (chemical) and homeopathic (natural) complexes in integrative treatment regimens can not only increase the effectiveness of treatment, but also neutralize the side effects of chemical drugs due to a number of homeopathic components. This reduces the single dose and course of allopathic agents, improves period of remission, and reduces the cost of course therapy.

Cases of intolerance to certain chemicals, allergic and other complications of their long or sometimes a single uptake, increasing resistance to treatment by common allopathic remedies lead to the need of substitution by safe and just as effective drugs. Many years of experience and clinical studies have demonstrated that homeopathic complex preparations of "EDAS" may be adequate and complete substitute for a number of phytopharmaceuticals.

During preparation for research, pharmacological standards recommended and used in clinical practice and preparations "EDAS" were tested for compatibility by modified method of electro-puncture diagnostic medical testing. Compatibility of different drugs in the integrative scheme has an additional positive impact on the efficiency and, accordingly, reduces the time and cost of treatment.

The use of integrative treatments is especially important for patients who are doomed to constant medication. Functional disorders of thyroid, pancreas and other glands, age-related decline of erectile ability in men make patients constantly use hormonal, enzymatic and / or stimulating chemicals. This therapy will inevitably lead to changes in the endocrine, cardiovascular, immune and other systems.

Adequately matched individual scheme of combined use of chemicals and the corresponding natural homeopathic complexes "EDAS" can not only reduce the dose of hormonal and enzymatic drugs, but in some cases lead to their reduced uptake, and sometimes completely abandon this medication. Such schemes are widely used in the treatment of hypothyroidism, diabetes mellitus type II, inflammation and age-related diseases of the sexual sphere, excess weight, etc.

However, the current conventional medicine has unreasonable negative attitude towards homeopathy and various non-drug methods, it requires a reasoned education of possibilities of the integrative medicine taking into account the latest scientific achievements.

## CHAPTER I.

# ALLOPATHY AND HOMEOPATHY – ARE BASIC COMPONENTS OF INTEGRATIVE MEDICINE

*Natura sanat, medicus curat  
(Hippocrates)*

### Iatrogenic diseases and methods of non-conventional therapy

Nowadays a new paradigm is developing in medicine. Over the years diagnostic and treatment methods of conventional (academic) medicine and methods of so-called non-conventional medicine have been developing in parallel, but at present we can speak about the trend towards their rapprochement, combination and integration.

According to the concept proposed by the British Medical Association (BMA) in 1993, non-conventional medicine includes "those forms of treatment that are not widely used in conventional medical specialties and which skills are not trained in students' educational programs of conventional medical centers and paramedical courses."

British Medical Association classifies aromatherapy, herbal medicine, homeopathy, acupuncture, various types of radiation exposure, numerous manipulations: chiropractic, kinesiology, osteopathy, Shiatsu acupressure, reflexology, etc. as methods of non-conventional medicine. This list can also include such methods of traditional medicine, used in Russia, as hirudotherapy, apitherapy, etc. At present arsenal of non-conventional medicine includes about 140 methods.

Nowadays there is an important problem to use the possibility of combining methods of conventional and non-conventional medicine, because each of these areas, along with the undoubted merits, has also significant negative aspects.

Therapeutic methods of conventional medicine have side effects. In particular, according to JAMA (2000), iatrogenic diseases rank third in the U.S. and sixth in the world for reasons that caused the death. As for the methods of unconventional medicine, their weak spot from the point of view of conventional medicine representatives is the weak scientific base of knowledge and stipulating therapeutic mechanisms.

However, despite the existing problems and skepticism, by the end of the 20th century unconventional methods of medicine have considered as methods of the complementary-alternative medicine (CAM), that is such that can be used both independently and in combination (as a complement) with methods of conventional medicine.

In this respect, a demonstrative example is the saying of 1998, of the president of the Fund of Integrative Medicine of Great Britain of Prince Charles, who supports the dialogue between various trends in medicine and believes that "both the dominant conventional medicine and complementary-alternative medicine, eroding intellectual rigor of conventional medicine, should learn from each other in order to maximize the benefits for the patient.

Practitioners, teachers and researchers of the complementary-alternative trend of medicine, for example, need to understand more systematically audit and rigorous study ... Doctors and researchers of conventional medicine, in turn, require understanding the approach, which is largely based on the improvement of the individual's condition (health) without the direct use of drugs or surgery. "

Today we can speak of the ever-growing interest in the method of non-conventional medicine from the part of the representatives of conventional medicine, and the general public. Belgian doctors use homeopathy in 84% of cases, acupuncture - 74% (Sermens R., 1993). In Holland, unconventional methods are used in 47% of GPs, 40% of them use homeopathy and 4% acupuncture. Homeopathy is popular in Asian countries, especially India, Pakistan, Sri Lanka (Bellavite P., Signorini A. 1995). In the U.S., many doctors have specialized and major in homeopathy (Ullman D., 1991).

Interest in methods of unconventional medicine among physicians and population is seen in many countries. This is proved not only by an increasing number of medical professionals, in addition to their major field, mastering different courses of homeopathy, herbal medicine, osteopathy, etc. in public and private institutions, but also by numerous scientific and practical seminars and conferences on practical use of unconventional methods of medicine in the treatment of various pathological manifestations

To answer the question about the possibility of a combined treatment of patients, such as allopathic and homeopathic methods, it is necessary to discuss a number of fundamental ideas and, above all, the concept of disease from the standpoint of modern science.

### Disease from the perspective of modern medicine

So far dozens of definitions of "disease" have been proposed - from the shortest such as "life under abnormal conditions," by R. Virhov and "disruption, due to which there is a threat to life" by L. Ashoffa - to the broader length with attempts to bring definition to deep biological nature of the disease.

One attempt is to identify the disease as "a state resulting from destruction of the structure and functions of the body and its response to these disruptions" (Sarkisov DS, MA Paltsev, Khitrov NK, 1997). As noted by many specialists, "the basis of the state are certain disorders of homeostasis, i.e. balance of all vital processes in the body and its relationship with the environment. "

It should be noted that a very widespread current understanding of a homeostasis means, above all, constant chemical composition and physical chemical features of the internal environment of the body. The expression homeostasis is a number of certain biological parameters, i.e. stable quantitative indicators of the normal organism.

These constant parameters of the internal environment are the blood mass, content of blood forming elements, body temperature, blood concentration of sodium, chlorine, as well as proteins, glucose, concentration of hydrogen ions, etc.

The above parameters of the internal environment present the so-called "substance homeostasis", which is based on direct material substrate, for example, glucose concentration in blood, or the indicators that are directly related to the substrate: value of the osmotic pressure, blood reaction, etc.

However, modern science and practice suggest that the concept of the internal environment or homeostasis can not be entirely reduced to the substance homeostasis.

It is well known that normal body functioning requires not only proper metabolism, but also an exchange of energy, and these processes are interrelated. Any changes of the substances in the body are associated with various chemical, mechanical, thermal, electrical and other phenomena.

***Metabolism and continuous circulation of energy are inseparable from each other. There is no change in the substance without transformation of energy and there is no exchange of energy without metabolism.***

In recent years, researchers' attention was drawn to the study of physical fields, which the body generates during functioning. The existence electromagnetic and acoustic fields round a man has been established. In particular, there are 4 main bands of electromagnetic radiation and 3 ranges of acoustic emission (Fig. 1).

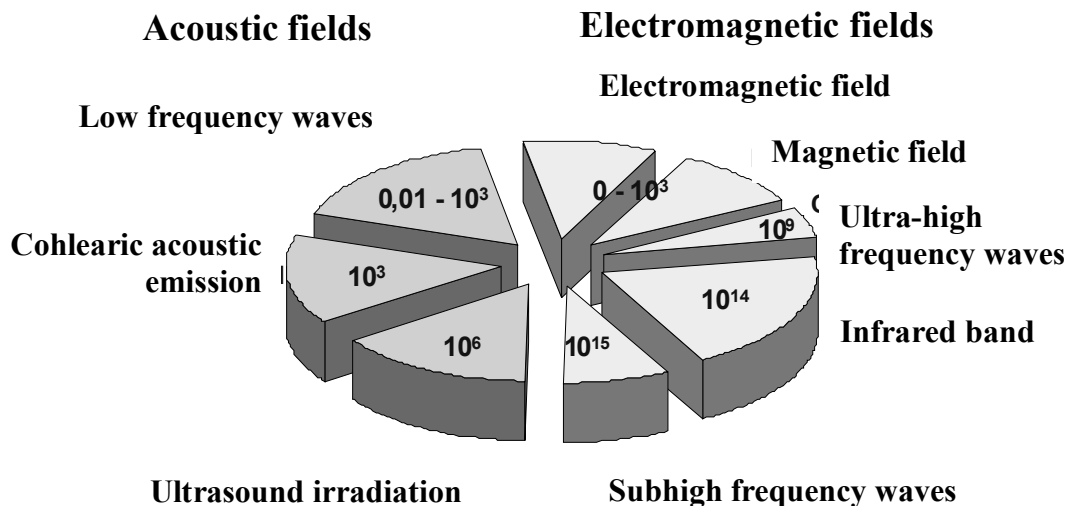


Figure 1. Scheme of electromagnetic fields and human self-fields

Sources of electromagnetic fields in different frequency bands are different. Low-frequency fields are generated mainly in physiological processes involving the electrical activity of the organs: heart (the time of the process is about 1 sec), brain (0.1 sec), the intestines (1 min), peripheral nerves (10 msec). The irradiation in the ultra-high frequency and infrared bands (from  $10^9$  to  $10^{14}$ ) – this is thermal electromagnetic irradiation.

The acoustic field sources are also different. In particular, low-frequency irradiation is generated by physiological processes such as breathing movements, heart beat, blood flow in the blood vessels, etc., accompanied by fluctuations of the human body surface in the range of 0.01 - 103 Hz (Antonov, VF, et al. , 1996).

Considering human electromagnetic and acoustic fields, Einstein's saying should be noted about "human incorporation in the space-time continuum", and thus about the inevitable energy and information interaction of man and environment.

Thus, at the turn of the 21st century, conventional medicine presented understanding of the need to expand the concept of homeostasis including not only the constant physical and chemical parameters (well known "substance homeostasis"), but also the constant level of energy information processes in the body and its parts, i.e. homeostasis of energy and information.

Information processes play the crucial role in the normal functioning of the body. These include: obtaining information from multiple receptors about the state of internal constants ("substance"), complex information processes related to coding important blood parameters in CNS, information about the work of executive mechanisms, etc.

The importance of information for the normal functioning of the body is confirmed by numerous examples of receptor system, a variety of projection areas of the internal organs in the skin, iris, etc. The result of this is to ensure the reliability of homeostasis. This explains why the contemporary researchers try to present different forms of life activity and the disease condition at the information level. Information approach can reveal new aspects of the phenomena, which are based on physical-chemical processes.

In the biological world, the exchange of information is an integral part of life - at the molecular level the order is presented in the form of given exact association of atoms in molecules (amino acids, proteins, lipids, nucleic acids, etc.). At the cellular level, the order is expressed in regularity and reproducibility of cell organization in the biosynthesis, transport and traffic.

To "restore the order", that is to reduce the entropy information is required. Therefore, the following definition of information are known such as "the possibility of establishing order» (Harold EU, 1986) or, in the famous phrase of Jacob (Jakob F., 1973), the "power to control

what is done." The importance of information for the normal functioning of the body can be considered an integral part of homeostasis, which in the current understanding includes the homeostasis of substances, energy and information.

The disease is essentially an information disorder. Striking confirmation of this are genetic diseases, when a change in the genetic code means that the disease lies in the information store. Genetic diseases can also be the result of minor errors of transcription in the "library" base of the cell.

Even in acquired diseases or diseases due to the mixed effect of the genetic and environmental factors (and there are a lot of diseases), "information clutter" exists at different levels of physiological systems. This is not only changes of the molecular DNA ordering, but also information "disorder" at the levels of supramolecular systems.

Disease is the disorganization, but, nevertheless, it is subject to certain laws and thus includes some elements of order. Homeostatic functional systems that make health, can cause many pathological manifestations in cases of inadequate reinforced and inappropriate use. On the other hand, it should be noted that a number of phenomena that are considered abnormal, are in fact, biologically useful (even if they cause pain), as these are a stage of the body move to a greater life stability, energy and resistance to pathogenic factors.

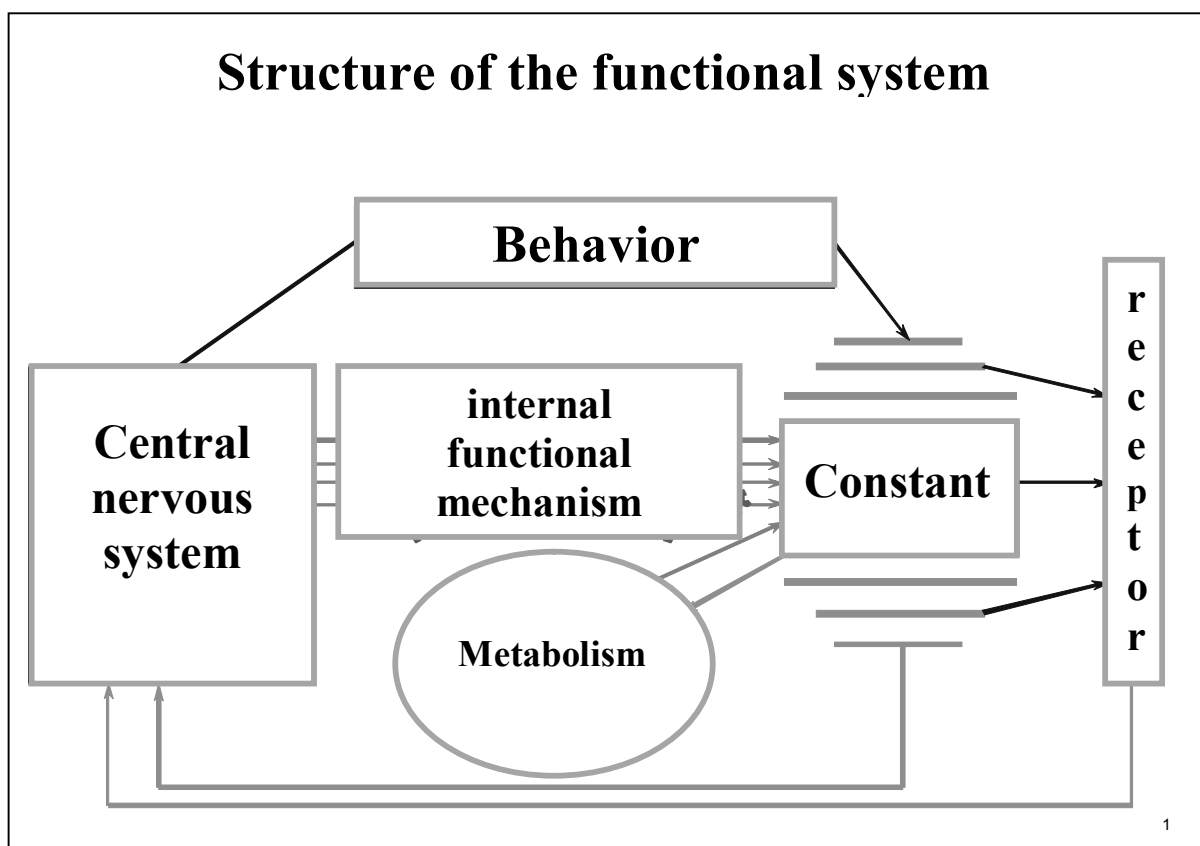
In this connection inflammation should be mentioned, as well as certain immune reactions, relative-FNF to pathological processes and that, despite some subjective symptoms, and possible organ changes, actually serve for reconstruction, security and strengthening resistance.

Any approach to the concept of illness will be closer to reality, if it is more integrated in the sense that all possible levels at which the pathological information clutter appears, will be covered by the definition. In this respect, an effective approach to the disease is from the perspective of the theory of functional systems by PK Anokhin, as it allows you to create a network of interactions, including molecules, cells, organs and systems of the horizontal (e.g., from the molecule to molecule) and vertical ways of conveying information between organizations of different levels (e.g., from the molecule to the cell from the cell to the body, from the body to the interaction with the environment) (Fig. 2).

Neither biological functional system exists in the body in isolation because otherwise it would have been "captured" by entropy. This in turn means that the disease can not be considered in isolation, as a self-sufficient phenomenon. "The disease - is not just a freak of nature, but only one of the ways of life, the value of which is far from understanding» (BellaviteP., Signorini A., 1995). Assuming that the basis of the disease is certain violations of homeostasis (substances, energy, information), it is clear that at least one of the directions of the disease treatment is the normalization of homeostasis of the organism.

As it is well known, the one who was the first to initiate the creation of a scientific medicine, was the Greek physician Hippocrates, who stated the main tasks of a physician as the preservation of health (disease prevention) and treatment of patients. He also postulated two principles of treatment: «similes similibus curantur» - similar cures similar and «contraries contrarius curantur» - opposite cures opposite.

The prominent scientist of antiquity Claudius Galen played an important role in the development of scientific medicine. In addition to anatomy and physiology, Galen dealt with drugs, but his attitude to the drug was different from the Hippocrates's medical approach. Hippocrates used the whole plant for the treatment, while Galen believed that we should use their parts, hoods, and that not all the substances of the plant were useful.



*Figure 2.* General architectonics of the functional system (by PK. Anokhin)

#### Methodological features of conventional and non-conventional medicine

Galen based his treatment on the principle of opposites - the principle, which is still dominant in conventional scientific medicine in Europe and America. Samuel Hahnemann later called treatment on the basis of the opposites as allopathic. However, not all the methods used for medicinal purposes, can be attributed to the field of scientific medicine and not all clinical methods are based on the principle of opposites.

The close relationship of conventional (academic) medicine with the latest technology determined the success in the field of cardiology, genetic engineering, molecular medicine, etc. in recent years. However, one of the limitations of conventional medicine include the use of only one of the Hippocrates's principles - "the opposite cures opposite" and lack of attention to the life-important principle of self-regulation - "similar cures similar."

It is well known, that conventional medicine has a triple approach consisting of etiological, pathogenetic and symptomatic treatment. Etiological or causal therapy is aimed at elimination of the causes of disease, pathogenetic therapy effects the course of the disease in order to interrupt or reduce it, symptomatic treatment is aimed at eliminating burdensome of disease manifestations for the patient. The methods of conventional medicine also include measures aimed at restoration of disease disturbed functions (rehabilitation) or their replacement (substitutional therapy).

The situation is different with the methods of unconventional medicine. Unlike conventional medicine, which methods, in particular, are aimed at elimination of the causes of the disease (etiological therapy), the vast majority of unconventional medicine approaches are directed inside the body to activate its defense forces and mechanisms of self-regulation. The possibilities of self-correction mechanisms are the main points in the use of unconventional medicine.

Non-conventional medicine (therapy) includes homeopathy, which is based on the prin-

ciple of similarity, "similar cures similar", postulated by Hippocrates and stipulated by Hahnemann. This principle allows treatment of the disease and choice of the means returning health from a totally different point of view than in conventional medicine.

Unlike conventional medicine, a number of methods of unconventional medicine, for example, homeopathy, acupuncture, bio-energy techniques, etc., in the base of their therapeutic effect have restoration of such body homeostasis parameters as energy and information.

## **Homeopathy as a method of energy information medicine**

Homeopathy, which refers to unconventional therapies, has a number of specific features that define its uniqueness. According to the concept of prominent specialists in the field of homeopathy (Coulter HL, 1976, Vithoulkas G., 1980, Charett G., 1982), "homeopathic medicine is a clinical-pharmaceutical system that uses small doses of substances from plant, mineral or animal origin in order to stimulate natural therapeutic response » (Bellavite P., Signorini A., 1995).

Homeopathy emerged in the late 18th and 19th centuries as a new therapeutic system, and despite various difficulties, mainly related to rejection by the representatives of conventional medicine, it developed, improved and became common in the last decade.

Considering homeopathy as a basic method of non-conventional medicine, we will try to answer reasonable questions of representatives of the conventional (academic) medicine: How can be considered the principle of "similar cures similar" from the point of modern medical science? Couldn't we refer positive effects of homeopathic medicines to placebo phenomenon, What do we know today about the mechanisms of therapeutic effects of homeopathic medicines?

## **Modern interpretation of the principle of similarity**

Hippocrates who pointed to the therapeutic use of the principle of similarity, as already mentioned, believed that "the disease originates from similar, and the patient restored his health by similar ... Fever is destroyed by its origin, and is caused by that, which destroys it... Patient is cured by nature, and a doctor must serve the nature - *Natura sanat, medicus curat* ».

The importance of the principle of similarity was noted by an outstanding physician of the Middle Ages Paracelsus. "The name of the disease - Paracelsus wrote, does not mean indication for the drug. It is similarity, which should be compared with its similarity, and this comparison leads to the discovery of wonderful compositions for treatment... No hot disease can not be cured by cold nor cold one – by the heat. But it often happens such that similarity cures its similarity "(quoted in Lipnitsky TM, 1992).

However, in the atmosphere of absolute dominance in medicine of Galen school with the Galen/s contrariety treatment system "the opposite cures opposite", Paracelsus's progressive ideas were rejected. And thanks to S.Hahnemann Hippocrates and Paracelsus's ideas were implemented in real practice, forcing doctors to take a fresh look at the patient as a person, and to methods of treatment.

Long-term S.Hahnemann's observations allowed to formulate the following important conclusions:

- Drugs that can cure disease, can also cause a similar disease in a healthy human body.
- Drugs capable of causing a disease in a healthy human body, can also cure similar disease conditions that occur from other causes

S. Hahnemann further developed these conclusions that were based on his early publications in his classic work "Organon".

S. Hahnemann believed that in order to cure it was necessary that:

a) natural and artificial diseases complied with each other as much as possible;

b) high strength of drugs poses a vital source in conditions similar to the conditions of the natural disease: the latter, being obscured by it, disappears completely "Organon, № 3 4."

In recent years, there have appeared studies, where authors shift the focus of S. Hahnemann's conclusions that homeopathic medicines have an impact on internal "source of life" of the body, and that the treatment according to the principle of similarity - the result of the "battle" between two similar stimuli.



A growing number of researchers emphasize the features of the mechanisms of "internal" effects of homeopathic remedies, using the results of achievements in other fields of science and technology, in particular - Biocybernetics.

This explains why modern researchers attempt to explain S. Hahnemann's conclusions about the "self-healing" of the patient under the influence of homeopathic preparations on the basis of objective data about the processes of self-regulation that occur in humans and animals.

In Russian Physiology the concepts of systemic approach is correctly associated with the name of IP Pavlov, who discovered the principle of self-regulation in a general way in the study of the heart and circulatory system.

Later IP Pavlov extended this principle to the activity of the organism as a whole, noting in "Physiologist answers to psychologist," that "man is, of course, the system (roughly speaking - the machine), like any other in nature, that obeys the inevitable and the same for the whole nature laws, but the system in the horizon of our modern scientific view, is the only highest self-regulating one... The system is highly self-regulating, supporting herself, restoring, directing, and even perfecting. "

The principle of self-regulation has become - by PK Anokhin - the guiding principle in the work of functional systems of the body, i.e. "Dynamic self-regulatory organizations, all the component parts of which interact and provide achievement of useful results" (PK Anokhin, 1968).

It is the result, thanks to the constant afferentiation about its condition, performs a kind of "mobilization" of central and operating mechanisms into a functional system, and thus, is a system forming factor.

Special feature of the theory of functional systems is that unlike many other theories of systemic nature, it offers an operational scheme of self-regulation, which includes such necessary elements as "useful result", "receptor link," "central part of the system", "executive mechanisms, "etc. (Fig. 2). We will use this scheme to explain the principle of similarity in the action of homeopathic medicines.

It is well known, that the "golden" rule of self-regulation reads: any deviation from the vitally important level of a physiologically significant factor is the signal for the immediate mobilization of multiple components of the corresponding functional system, which restore the vital factor of the body.

This rule allows a different perspective to explain the basic statement of homeopathy, "similar cures similar." Indeed, it is just further deviation of the disease modified constants that a homeopathic remedy causes for the purpose of further enhancing the body's defenses, implemented through a variety of mechanisms of the appropriate functional system.

In this way, as Hahnemann and later many homeopaths noted, there may be "primary exacerbation" of the patient's condition, which is followed by recovery (recovery of normal levels of homeostasis with the elimination of the subjective complaints). This determines the basic task of the doctor of homeopathy: to find a remedy, which is to the highest extent "similar" to the change in functional state of the organism, as well as the dose (level of dilution of substance), in order to reduce to a minimum the subjective symptoms of the primary stage of exacerbation.

Thus, the therapeutic effect of homeopathic remedies is explained not by creation of "artificial" disease and its "war" with the natural one in the body, but activation of relevant internal self-regulatory body's defenses.

## **Do the therapeutic effects of homeopathy refer to placebo phenomenon?**

It is well known, Hahnemann introduced low doses in clinical practice significantly later than discovery of the principle of similarity. Initially S. Hahnemann used higher doses, consistently stating the patient's status exacerbation till the period of remission. As a result of these observations, S. Hahnemann made a second discovery, offering he way of consistent, stepwise reduction of substance doses.

At first, S. Hahnemann was concerned that with dose reduction and decreasing period of disease exacerbation the healing effect would disappear. However, to his surprise, S. Hahnemann noticed that the more he reduced the dose, the less were the symptoms of the disease strengthening and the faster was the recovery, given the right homeopathic remedy. In his practice he widely used decimal, hundreds and even thousands dilutions of "parent" drugs.

In modern homeopathy, there are different ways of dilutions (potentiation) of drugs. It is important to note that when preparing the solutions of homeopathic medicines repeated shaking of the tubes is necessary, and in cases of manufacturing insolubles (triturations) it is necessary to make intensive grind-

ing of drugs with chemically pure lactose.

Not mentioning other dilutions - "thousands", "Korsakov's", etc. – we note the important fact that when diluted 24X or 12C, homeopathic preparation does not contain the "parent" molecules. Dilutions 30x, 12c, 30c, etc. are widely used in practice. The representatives of conventional medicine consider the fact that there is the lack of active principle (the "parent molecules") in homeopathic preparations, a weak point in homeopathic treatment, and positive therapeutic effects observed in these cases, they associate with the phenomenon of placebo.

It is clear that the problem of homeopathic treatment effectiveness is extremely important and that it can not be considered in isolation from the placebo treatment. It is well known that the phenomenon of the placebo-effect was observed with the use of methods of conventional medicine, and it is one of the main problems of research in the field of clinical pharmacology.

Special feature of homeopathic methodology is that the doctor focuses on patients' complaints, individual patient's characteristics and family medical history, when patient - physician relationships are important, as well as numerous sociologic-cultural factors, and the effectiveness of homeopathic therapy is heavily influenced by subjective factors. However, today there is much evidence that the placebo effect is not the only possible explanation for the action of homeopathic medicines

It is clear that the answer about the effectiveness of homeopathic treatment can only be given by strictly controlled clinical studies using double-blind control, and adequate statistical methods to guarantee the result.

It is important to emphasize the individual character of homeopathic therapy - that is, the possibility of treating patients with the same pathology by different homeopathic remedies, which determines the specific nature of these clinical studies compared to routine research on the effectiveness of pharmacological agents in conventional medicine.

The first observations of this kind, made with the support of the British government, refer to the period of the Second World War. They were carried out by volunteers who suffered from burns of the skin. The studies were conducted in two different centers (London, Glasgow) using a double-blind, placebo – controlled trial and yielded statistically significant results of significant patients' improvements when homeopathic medicines were used.

An overview of the Dutch authors analyzed the results of 107 homeopathic tests carried out on the basis of the evaluation criteria of orthodox medicine (Kleijnen J. et al., 1991) is of great interest.

On the basis of this analysis, the authors concluded that "the results presented in this review, are sufficient to be considered by regular homeopathic treatment in a number of cases." As for the "number of cases", the authors present the following chart of the efficacy of homeopathic therapy in the treatment of various diseases (Table 1).

**Table 1**

**Clinical research in homeopathy (Kleijnen et al., 1991)**

<b>Diseases</b>	<b>Number of studies</b>	<b>Positive results total number</b>
Diseases CCC	9	4/9
Lung infections	19	13/19
Other infections	7	6/7
Diseases of GIT	7	5/7
Post-operative ileus	7	5/7
Pollenosis	5	5/5
Rheumatic diseases	6	4/6
Trauma and/or pain	20	18/20
psychiatric and psychological disorders	10	8/10
Other diagnoses	15	13/15

So far, effectiveness of homeopathic medicines in the treatment of inflammation, infection, trauma and in relieving painful symptoms of various origins can be considered as proven.

The results obtained by different authors in double-blind controlled studies, lead to an important

conclusion that the effect of homeopathic therapy is higher than that of a possible placebo effect.

Many of the examples of the use of homeopathic medicines for therapeutic purposes indicate that the positive results were observed when homeopathic remedies contained single "mother" molecules, or did not contain them at all. This leads to a conclusion that homeopathic therapy is not therapy of "substance", which is typical especially for drug therapy, the basis of the conventional ("academic") medicine.

One can agree with the statement that "homeopathic medicines are not medicines" in common sense. They are not used to kill germs or suppress their activity, they are not used for any replacement - the missing substances such as iron, calcium, iodine, etc., or any relief - or pathological symptoms, such as cessation of pain, itching, insomnia. Homeopathy has no sleeping, no pain, no laxatives, no fixing remedies. Homeopathic remedies are the regulators of the body, they help restore self-regulation "(Vavilov, NM, 1992)..

A natural question arises - In what way can homeopathic medicines have the body regulating effect, especially if the drugs are used in high dilutions? The only conclusion that can be made is information impact of homeopathic medicines.

"In homeopathy the remedy provides information, given in extremely small doses" - notes NM Vavilova. But how is this done, when high dilutions of homeopathic remedies do not contain the "parent" molecules, and the observed positive effects of homeopathic therapy can not be limited to the placebo effect?

### **About information effects of homeopathic remedies**

Considering mechanisms of action of homeopathic drugs, we should note that re-decisive importance in the positive therapeutic effects of homeopathy belongs not so much by the dilutions (decimal, hundreds, thousands, etc.) as a method for their preparation. S. Hahnemann still strongly emphasized the necessity of multiple, up to 100 times shaking homeopathic drugs at every stage of their breeding. It follows that the solution to the mechanisms of action of homeopathic drugs lies not in the degree of dilution, and in the processes occurring in step with the dynamization of energetic influences on the solution by shaking.

It is important to notice that during automated preparation of homeopathic drugs with the necessary shaking electrical current occurs as a result of the friction of the liquid molecules on the glass vessel wall and the intensity of the electric field increases at every stage of potentiation.

What changes do highly diluted drugs cause in the complex structure of the solution during potentiation?

According to G.Resh and V.Gutman (1994) the solution in the water shows the greater similarity to the "clean" water, the less the concentration of dissolved substances is. When the so-called "mother tincture" is dissolved in pure solvent, two similar systems come into contact, namely a more differentiated solution with its more advanced structural statistical aspects and less differentiated and more dynamically active solvent.

More "openness" and more advanced dynamic aspects of the pure liquid make it possible to integrate structural information of mother tincture in a diluted solution. And further: "At each stage of dilution concentration of mother tincture is reduced, however the information is not lost, but is distributed throughout the more dilute solutions. With the improvement of the dynamic aspects the original information from the material tincture is integrated into the vibrational pattern and becomes a part of it, which dynamically increases by higher hierarchical levels.

At each stage of dilution less differentiated system (pure solvent as the medium) is modified by structural aspects of a more differentiated system (solution). Thus, the internal structural information of the solution is distributed through the new system, and this process is facilitated by shaking the solution. "

Processes occurring during shaking in the technology of stepwise solution dynamization during preparation of homeopathic remedies are now extensively studied. So, if we shake strongly a water solution before crystallization, the thermoluminescence energy released by such crystal will be much higher than the energy of the crystals obtained without shaking (Gutmann V., 1989). This means that part of the energy generated during shaking is captured by solute particles and kept in the process of crystallization.

System organization of the new solution is enhanced by shaking, which provides a greater ability to support integrated configuration and functionality. "Thus, the original drug information is integrated and maintained in a more diluted solution" (Resch, G., B. Gutman, 1994).

Contemporary views on the biophysics of water suggest that the process of potentiation leads to significant improvements in the systemic organization of water, which, in turn, means that in the high potencies (dilutions) "information of the drug is dynamised completely, more active and has a higher accuracy and it does not affect the molecules of mother tincture" (Resch, G., B. Gutman, 1994).

S. Hahnemann's use of alcohol-water mixtures for production of potentiated homeopathic remedies gave impetus to studying the features of water by adding alcohol.

It was found that the addition of alcohol to the liquid water two different, yet similar system organizations come in contact. The molecules of water and alcohol are very similar because of well-developed donor and acceptor characteristics, which leads to the formation of a network of hydrogen links (Fig. 3).

### Formation of tetrahedrill

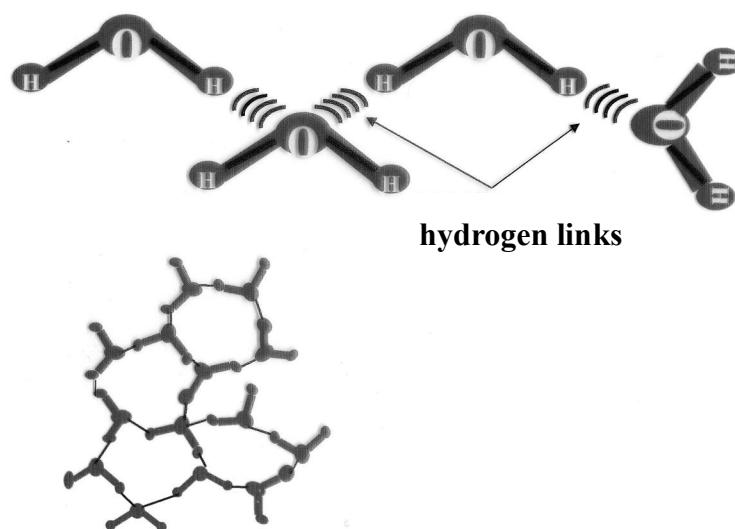


Figure 3. **Structure of the water** (A – hydrogen links between water molecules; B – tetrahedral and irregular polyhedral structures in liquid water)

It should be noted that among the existing differences better development in water is seen for donor and acceptor links, which results in stronger hydrogen links in liquid water than in liquid ethanol. The presence of a hydrophobic alkyl group in place of one of the hydrogen atoms leads to the fact that the network of the alcohol molecules in the liquid ethanol is less developed than in the water. Because of these differences, liquid ethanol is less "structured" and dynamically better developed than liquid water.

During the dynamization process of the entire system alcohol molecules integrate into the lower hierarchical levels due to the similarity of hydrophilic properties of the molecules of water and alcohol. In turn, the enrichment of the upper layers by water molecules provides better conditions for the dynamic properties at all levels. As the authors noted (G. Resch, B. Gutman, 1994), "an improved system organization was formed..., the mixture becomes more differentiated than any of its components in pure form."

This explains the ability of highly diluted drugs in water-alcohol solutions to contain and keep the information for a long time with great accuracy that can be recognized by the water component of the body, carrying all the information about the person.

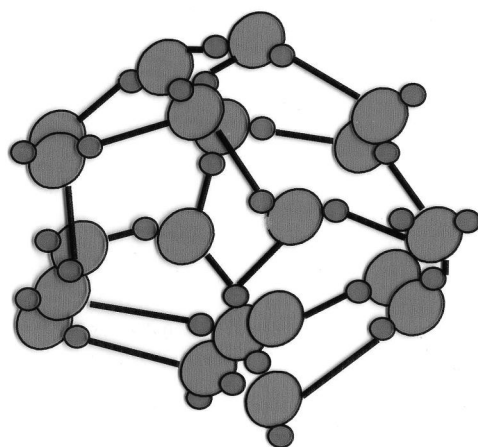
Ability of a solution to keep information characteristics of solutes is determined by short-term interactions in the form of hydrogen links due to van-der-Waals forces, which form a kind of network of water molecules.

According to the concepts of C. Smith and G. Anagnostosa "memory of water" is provided by special aggregation of water molecules in the form of clathrates. The term "clathrate" (from Latin *clathrus* - grid) was been proposed by G. Anagnostosa to refer to celloid cover of the solvent round the molecules of the initial material or cavity (Fig. 4).

The possible existence of "cavities" in liquids is generally recognized as, in particular, in water its molecules join into pentagonal or hexagonal forms due to hydrogen links. In addition to hydrogen links, dipole relationships affect the formation of cavities, as well as surface tension, which causes an inside negative pressure.

It is important to note that clathrates are formed not only around the molecules of dissolved substance, but also they can exist and maintain stability in the case when the substance leaves the niche. "The sequential dilution and dynamization forms new clathrates around nuclear clathrates, which eventually are also structured solvent" (K. Smith, 1994).

## Electromagnetic biotransformation and water



**Dodecahedron cluster  
of water molecules  
interacting by H links  
(clathrate)**

*Figure 4. structure of clathrate*

S. Zenin (2007) gives a similar conclusion about the information phase state of water that is provided by the presence of information cells with strictly determined location of structural elements. He believes that "the cell is able to reflect any external influence in its structure, producing a kind of encoding properties of the object affecting it, i.e. thus carrying out the transformation of information. Becoming a target for the neighboring cells, information transformed cell is able to perform retranslation of its characteristics to all cells of the medium, thereby shifting the medium to a new phase state. "

However, there are other explanations of the effects of high dilutions of homeopathic remedies, which are based on the physical phenomenon of isotopic differences (isotopics), i.e. on a well known fact that most of the chemical elements are a mixture of stable isotopes (atoms with a fixed number of protons but different numbers of neutrons in the nucleus).

These were, in particular, the understanding about the role of positronium, as an important mechanism of action of high dilutions of homeopathic medicines. Positron - electron-positron ( $e^-$ ,  $e^+$ ) is an atomic system, opened indirectly, and is an analog of the hydrogen atom (Williams WF, 1962). In the hydrogen atom one electron revolves around a single proton, while positron plays the role of proton in positronium. Thus, positronium can be seen as a very light isotope of hydrogen.

It is believed that some of positronium can form specific complexes of positronium with identical arrangement of electrons in the immediate vicinity of the drug molecules and their molecular fields. These complexes can act as light isotopes of the original molecules of the drug, while maintaining their properties, even if in subsequent dilutions of the drug no molecules remain in the solution (Dutta AC, 1983).

At some stages, the molecules of light isotopes function as autocatalytic agents and lead to the formation of new generations of isotopes that proportionally increase with dilution and thus making homeopathic potencies more powerful. It was mathematically determined that catalysis does not happen at the beginning of the reaction and that its rate is directly proportional to the concentration of the final product of the reaction.

Thus, the notion that homeopathic potencies are associated with the formation of light isotopes, are in line with modern concepts of physics. The future development of biophysics of water will clarify whether the transfer of information in highly diluted homeopathic preparations is due to clathrates or lighter isotopes with positronium, but it is already obvious today that the homeopathic therapy is, above all, the information treatment.

At present the first attempts have been made in the field of experimental physics to assess homeopathic treatments using Raman laser absorption in the infrared irradiation and technology of nuclear magnetic resonance.

As we know, when a laser beam effects an object a small part of the light rays is scattered, and their wavelength is different from the wavelength of the main stream. Analysis of the emission peaks of the scattered light (Raman effect) gives description of the physical condition (viscosity, dielectric constant, etc.) of the studied liquid. To date, there are data showing that homeopathic dilutions of various plants (*Aesculus*, *Bryonia*, *Rosmarinus*) in 70% ethanol solution change Raman spectrum. This is manifested in a significant decrease of the spectral peaks in the range of different frequencies.

Various discussed aspects connected to information, make us come back to the concepts of health, illness, etc. again and again. At present a living organism is considered to be an open system far from equilibrium, which regulation can not be reduced to linear equations due to variety of processes of interaction with the environment.

It was found that a living organism is sensitive to very weak electromagnetic fields, and especially to their specific frequencies. At the same time, the study of the physical properties of water suggests that water itself can be a source of electromagnetic waves..

This, in turn, means that the disease can be seen not only as a result of functional or molecular structural damage, but as a result of disorder throughout the network of electromagnetic communication based on long-term relations between the elements (molecules, nerve centers, authorities, etc.), vibrational frequencies, which are coherent and specific and, therefore, capable of resonance. That is, the disease can be treated as a "disorder of internal oscillators and communication» (Bellavite P., Signorini A., 1995).

The harmony of oscillations and their associated relationships can be brought back to balance by changing the frequency during interaction with other oscillators. According to these ideas, homeopathic medicine can act on the patient, as an external source of frequency effects.

It is considered that "dynamized and potentized homeopathic remedy can be presented as a small amount of a substance containing elements oscillating in phase (coherent) that can convey these frequency vibrations through the process of resonance to the complex of " metastable " structures, to the object of the nonlinear behavior, which is able, in turn, to make fluctuations (macromolecules, alpha-helix, membrane, fibrous structures, receptors). Thus, the connection can be made between the frequencies of medication and oscillators that are in living organisms affected by the disease » (Bellavite P., Signorini A., 1995).

Signals, even very weak, but endowed with highly specific frequency of information that can sound in unison with the perceived system (recipient) may act as the regulators, especially when the system is misaligned like a crossroads ("bifurcation" in terms of the theory of chaos), and when the choice to move in one direction or the other is associated with the minimum of effort at the boundary between order and chaos.

The study of the electromagnetic spectrum of homeopathic preparations depending on the potency allowed a new explanation of their action in cases of ordinary dosage. The differences

can be explained by a shift of the resonance frequency information wave to the higher regions of the spectrum of electromagnetic waves during potentiation (ultra high dilutions ) of product (AV Samokhin, Gotovsky Y., 2001).

The most logical and consistent with the recent data of basic science in the field of natural science is the hypothesis of Yusupov GA (2000), which states that during the energy information interaction the result is determined by the resonance (when the frequency and phase of the wave coincide) or interference (when the frequency coincides with antiphase wave) at the intramolecular links, leading to structural and functional changes in the biomolecules. More information about the GA Yusupov's hypothesis can be found in the section "About energy-information mechanism of therapeutic action of homeopathic remedies" (Appendix).

### **Modern understanding about therapeutic mechanisms of homeopathic remedies**

In the middle of the XIX century the classic of world's physiology Claude Bernard said: "The constancy of the internal environment is a necessary condition for a free and independent life." What exactly is this "internal environment" the constancy of which, that is, the homeostasis of substances, energy and information is necessary to maintain for normal livelihood.

According to A. Pishinger, the father of modern histochemistry, the internal environment of the body means, in particular, the condition of the extracellular matrix. This in turn means that all the efforts of the doctors of conventional and unconventional medicine aimed at supporting man's health should ultimately be aimed at the normalization of metabolic processes in the matrix to ensure its permanence

#### **A. Extracellular matrix and its organization**

The major structural components of the extracellular matrix (ECM) are proteoglycans, glycosaminoglycans and structural glycoproteins (different types of collagen, elastin), and binding glycoproteins. The relationship between these structural components with molecules of low molecular weight substances (water, cytokines, hormones, peptides, neurotransmitters) is called matrisome.

It is here where there occurs the movement of tissue fluid between the cells of organs and matrix which regulation is performed by the active role of the ECM polysaccharide network and fibroblasts. Glial cells take their functions in the central nervous system. For a short time, fibroblast processes all information available to it (metabolites, neurotransmitters, neuropeptides, changing pH, etc.) in complex with the adaptive synthesis of the main components of the substance.

It is believed that fibroblasts do not differentiate between "good" and "bad", and this means that, under the influence of any long-term stimulus, there occurs considerable desinformation of numerous feedback circles that can lead to "pathologically adapted» (maladjusted) matrix . Coordination and control of the fibroblast activities is provided by neuronal (autonomic nerve fibers), immune and endocrine impact.

A.B. Schechter and V. Serov (1995) point to the "cooperative interaction" of connective tissue cells (fibroblasts, macrophages, lymphocytes, endothelial cells) with each other, with the extracellular matrix, blood cells and parenchyma elements, which act on the feedback basis.

The authors look at the connective tissue "as a self-regulating system under the control of the higher regulatory systems - nervous, endocrine, immune," noting that autoregulation takes place at different structural levels - from the functional element (histone) to the level of the organism.

As a coordinating structure the cytokine network, that permeates the entire body, perform a rapid feedback between cells and the axon terminal. Cytokines are low-weight molecular cell mediators that are able to participate in all cellular reactions, as they have auto-, para-, and endocrine control (Abbas A., Lichtman., Poher JS, 1997, Assadullah K., 1997).

Processes which occur in the matrix are complex and difficult to predict. Thus, "each cytokine

can affect different types of cells - targets, however, cytokine action may be just the opposite depending on the type and concentration " (M. Finger, 1995). And "different groups of cytokines have a similar impact on a specific type of cell. However, the effect on the cell - a target of two or more cytokines sometimes leads to qualitatively different responses "(M. Finger, 2003).

Cytokine network forms in ECM a space - time information structure, which is involved in the fine tuning of all the features in the interaction of cells in the ECM.

Molecules of proteoglycans and GAG receptors act as receptors, protectors, inactivators and storage of cytokines. H. Heine (2008) suggested that fibroblasts (astrocytes in CNS) as major cells synthesizing ECM, close the regulation loop, which is controlled by cytokines.

A detailed study of the role of neuro-, immuno-, endocrine components in unconventional and conventional medicine is hindered by existing mutual influence of these components at various structural levels in the body (VA Chereshev et al., 2002).

### ***B. Immune mechanisms in maintaining the constancy of extracellular matrix***

The rapid advances in molecular biology and genetics, biotechnology and biochemistry, cell biology, accompanied by the discovery of cytokines, growth factors, adhesion molecules, extracellular matrix proteins, help to clarify the cell and cell-matrix interaction in the case of physiological and pathological processes

This explains why in recent times, when considering the disease, that is, disorders of the ECM, emphasis is made on immunologic regulation, important components, such as T-lymphocytes, a variety of cytokines and other factors.

Immune processes in the extracellular matrix with the direct regulatory effect of the nervous and endocrine systems, became the focus of attention of both representatives of conventional medicine, studying the pharmacokinetics of various drugs and supporters non-conventional medicine, especially specialists in the field of homeopathy and homotoxicology. This allows us to address common issues of immunology.

Immunology describes T-helper cells (TH) - special subpopulations of CD 4+ T cells, which assist other immunocompetent cells to realize immune responses by cell activation or release of cytokines. TH - cells are divided into three categories: TH-1, TH-2, TH-3. TH-1 cells are responsible for cell-mediated immunity. They activate natural killer cells (NK - cells) and macrophages. TH-2 cells control humoral immunity. They are able to stimulate production of antibodies B - cells, plasmic cells, resulting in destruction of antigens outside the cells (humoral immunity). TH-1 and TH-2 cells are pro-inflammatory lymphocytes. Their main task is to activate and promote the protection of a particular agent. TH - 3 cells are regulatory cells, reducing inflammation. Their main mediator that regulates inflammation, is a transforming growth factor - beta (TGF- $\beta$ ). They inhibit the function of the cells TH-1 and TH-2, thus reducing their activity. It should be kept in mind that the TH-1 function inhibits the activity of TH-2 and vice versa. In a healthy body there is a balance of TH-1 and TH-2 cells.

Blocking the system in status TH-1 causes TH-1 rigidity. Typical rheumatoid conditions are diseases caused by the immune system functioning against its own tissues (cell autoimmunity): rheumatoid arthritis, and multiple sclerosis. A variety of chronic inflammations present another example. In particular, cardiomyopathy and Crohn's disease are caused by TH-1 rigidity.

Blocking the system in the status TH-2 causes allergic diseases of different organs. The consequence of this rigidity is cellular dysfunction, chronic fatigue syndrome, advanced AIDS, cancer (Table 2).

Maintaining equilibrium TH-1 and TH-2 – which is the basis of health – is supported by numerous factors, in particular, cytokines that play a special role. They are divided into 2 groups. One group causes inflammation, and tissue damage. It includes: interleukin-1, interleukin-6, interleukin-8, tumor necrosis factor alpha (TNF- $\alpha$ ). The sources are: macrophages, TH-1 cells, chondrocytes, fibroblasts. The other group blocks inflammation, promotes tissue repair. Sources: TH-3 cells, other cells of the body (Table 3).

Immune responses are regulated by a large number of mediators. Despite the fact that both sides of the equation TH 1 / TH 2 make different actions, both of them are capable of mutual "control" and inhibiting their actions. Reaction mediated by TH-1 inhibits the way TH-2, by secreting interferon - gamma and vice versa: TH-2 cells inhibit the TH-1-dependent process by



secreting IL-10. Above the cells TH-1 and TH-2 there is the regulatory system (TH-3, or regulatory cells), which can inhibit the both reactions mediated by TH-1 and TH-2 as a result of transforming growth factor - beta production. (Fig. 5).

Table 2

### Switch Th1/Th2

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Th1-rigidity             <ul style="list-style-type: none"> <li>○ The cell autoimmunity, such as rheumatoid arthritis, multiple sclerosis</li> <li>○ Chronic inflammation                 <ul style="list-style-type: none"> <li>• tendinitis</li> </ul> </li> <li>○ Cardiomyopathy</li> <li>○ Crohn's Disease</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Th2-rigidity             <ul style="list-style-type: none"> <li>○ Allergic diseases                 <ul style="list-style-type: none"> <li>• Asthma</li> <li>• eczema</li> <li>• Allergic rhinitis</li> </ul> </li> <li>○ Cellular immune dysfunction                 <ul style="list-style-type: none"> <li>• chronic fungal disease</li> <li>• chronic fatigue syndrome</li> <li>• cancer</li> <li>• the last stage of AIDS</li> </ul> </li> <li>○ Recreational Drugs                 <ul style="list-style-type: none"> <li>• ecstasy</li> <li>• alcohol</li> </ul> </li> </ul> </li> </ul> |
|--|---|

Table 3

### Inflammation: mediators

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• cause inflammation</li> <li>• destruction of tissues</li> <li>○ interleukin-1</li> <li>○ interleukin-6</li> <li>○ interleukin-8</li> <li>○ tumor necrosis factor</li> </ul> <p>sources:</p> <ul style="list-style-type: none"> <li>○ macrophages</li> <li>○ Th1-cell</li> <li>○ chondrocytes</li> <li>○ fibroblasts</li> <li>○</li> </ul> | <ul style="list-style-type: none"> <li>• block inflammation, promote tissue repair</li> <li>○ IL-10</li> <li>○ TGF β</li> </ul> <p>sources:</p> <ul style="list-style-type: none"> <li>○ Th3-cells</li> <li>○ other cells of the body</li> </ul> |
|--|--|

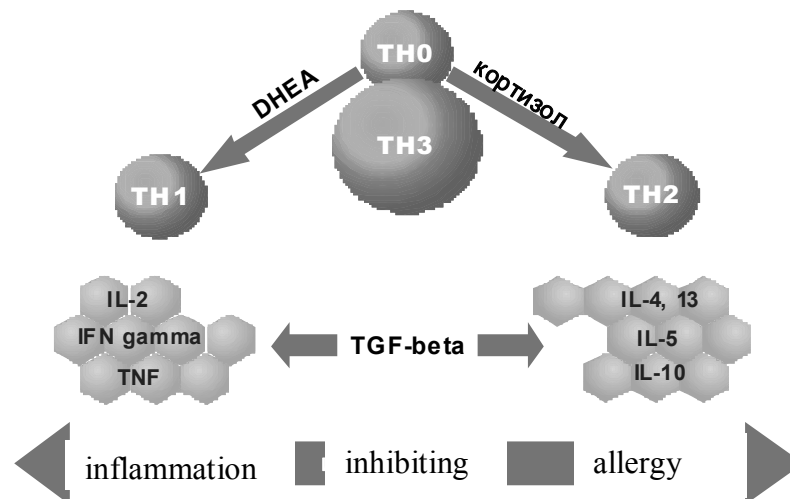


Figure 5. Regulation of the immune response

Immune lymphocytes are activated within cellular or humoral immune defenses. In both cases, the last cell of pathway affects the input of the action of the mechanism. Macrophages stimulate the TH-1-dependent function by production of interleukin-12, but they are activated at the same time by the production of interferon-gamma (IFN- $\gamma$ ) and tumor necrosis factor - beta (TNF- $\beta$ ), which are produced by Th-1 cells. Thus, there is a closed loop.

A similar circuit is observed in the cascade of reactions caused by TH-2. Mast cells stimulate the activity of TH-2, which, through the synthesis of interleukin-3, 4 and 10 activate mast cells.

Thus, both cascades of reactions TH-1 and TH-2 stimulate their own circuit by the positive feedback, which is inhibited only as a result of the interaction between TH-1 and TH-2, and monitoring regulatory impact of regulatory T cells (Fig. 6).

### Interleukins and other mediators

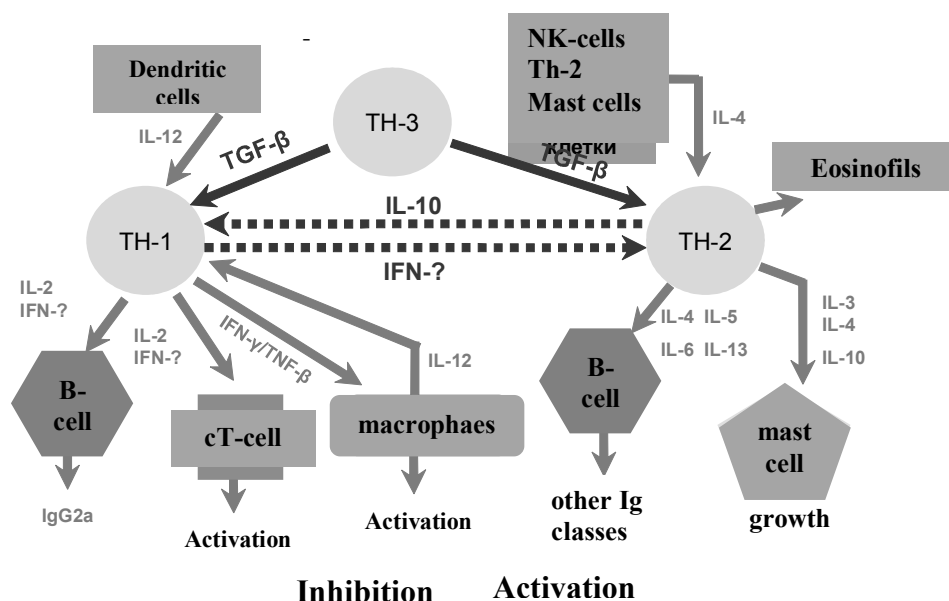


Figure 6.

Currently, therapeutic mechanisms of unconventional methods of medicine, associated with the processes in the extracellular matrix, are most studied for acupuncture (acupuncture) and homeopathy (homotoxicology).

Studies of recent years show that homeopathic products affect the cytokine network of the body and thus control the setting of immune tolerance. Some drugs have the effect of lowering the level of regulation of (immune inhibitors), and some stimulate protective response (immune stimulators). A number of drugs have two opposite kinds of regulatory impact, depending on the stage of wave-like self-regulatory process, where the patient is present. Drugs of this group are the true immunomodulators, because they are able to take corrective action in both directions.

H. Heine (2005) believes that in order to achieve the immunomodulating effect by activating TH-3 cells the drug must contain proteins in dilutions of  $10^{-1}$  to  $10^{-14}$  (homeopathic potencies D1 - D14 - the limit of the inhibiting inflammation tissue-derived growth factor - TGF- $\beta$ ). Concentrations exceeding the level of  $10^{-1}$  are likely to lead to the development of lymphocytes TH-1 and TH-2. Molecular protein concentration  $10^{-14}$  are no longer rich enough to make immunomodulatory effect.

It was established that potentiated (D2 - D6) substances of plant or animal origin *Aconitum napellus*, *Arnica Montana*, *Brionia cretica*, *Chamomilla recutita*, *Rhus toxicodendron* and others affect the synthesis of TGF- $\beta$  an important regulator of lymphocytes in whole blood cul-

ture. In these potencies Hepar sulfur promotes the synthesis of pro-inflammatory cytokines TNF- $\alpha$ , TGF- $\beta$ , IL-10, and Pulsatilla - TNF- $\alpha$ , TGF- $\delta$ , IL-10 and interferon - gamma (IFN- $\gamma$ ) (H. Heine, 1999).

Immunomodulatory effect of complex antihomotoxic agent Traumel C in vitro appears to inhibit pro-inflammatory mediators IL-1b, TNF- $\alpha$  and IL-8. The level of inhibition of secretion of various mediators was 70% for IL-1b, 65% - TNF- $\alpha$ , and 50% - IL-8 (Porozov S. et al., 2004). The data proved that complex preparation Engystol stimulates lymphocyte secretion of interferon-gamma (IFN- $\gamma$ ) by 24% and increasing granulocytes activity by 33% (Wagner H., 1986).

To fulfill high potencies which are mostly used per os and in very small quantities, intraepithelial gamma delta T cells of mucosa of the mouth are activated, which refer to the lymphatic tissue associated with mucous (MALT) (Abbas A. et al., 1997).

In turn, they activate all types of immune cells, which being triggered by the appropriate chain reaction, are capable of releasing cytokines for further development of the process. In addition, B cells are also stimulated to synthesize antibodies, leading to targeted immune response (H. Heine, 2008).

Thus, the therapeutic mechanisms and antihomotoxic homeopathic preparations, are only part of unconventional medical practices, as well as the method of conventional medicine (drug therapy) and they are aimed at restoring extracellular matrix affected by the disease.

Occupying 20% of the body weight, performing autoregeneration by fibroblasts, being a "battle" place of non-specific immunity, extracellular matrix almost completely determines the quality of life of a cell, tissue, organ, and organism.

### Conclusion

Based on the above written, we can draw two important conclusions: about the final use of therapeutic effects of the methods of unconventional and conventional medicine (therapy) and the possibility to combine methods of integrative medicine based on completely different principles: the principle of opposites, and the principle of similarity in disease treatment.

Long-term studies of pharmacokinetics of various drugs of conventional medicine, scientific research on medical effects of homeopathic antihomotoxic drugs led to the conclusion that the final point of their impact is the extracellular matrix, which constancy of composition is destroyed by the disease, and therefore it is restored by regulating nervous, endocrine and immune processes, in which local promoters cytokines play the important role. This makes clear the task of the doctor: having studied therapeutic mechanisms of various conventional and unconventional therapy methods, doctors should use their optimal combinations to restore health of the individual.

Presented information about the specific features of conventional and non-conventional medicine methods proves the possibility of their combined in the treatment of various pathological conditions. In favor of this statement we may present etiological treatment related to the methods of conventional medicine aimed, as a rule, at elimination of the "external" causes of the disease and methods of unconventional medicine, turned "inside" the body to activate its protective adaptive mechanisms. Such combination is not only relevant, but also feasible.

Annual scientific symposia and conferences organized by the Russian Scientific Center for Restorative Medicine and Balneology, Federal Research Clinical and Experimental Center for traditional methods of diagnosis and treatment, the Association of Rehabilitation Medicine (ASVOMED), Moscow Homeopathic Center (MHC), and other organizations acknowledge practitioners in a growing volume with examples of integrative (combined) use methods of conventional and unconventional medicine in the treatment and medical rehabilitation and disease prevention. This means that **the twenty-first century medicine gets a new paradigm, becoming integrative medicine.**

## CHAPTER II.

# STRATEGY AND TACTICS OF MEDICAL PROCESS IN INTEGRATIVE MEDICINE

Living organism, as part of the natural environment, is affected by the laws of universal development:

- the law of transition from quantitative to qualitative changes;
- the law of the unity and struggle of opposites;
- the law of negation of negation;
- the law of harmonious development.

On the one hand, the internal and external environment of the body are in dialectical interaction and under the influence of these laws.

On the other hand, the internal environment of the body is affected by the same universal laws of universal development. The mechanism of action of these laws on the process of the harmonious functioning of the body is the subject of this handbook. But, at the same time, it is evident that the dialectical (systemic) approach is needed in discussion of the strategy and tactics of patient care in the integrative therapy of diseases.

It should be noted that the body is the integrity of interrelated, interacting and interdeveloping components for the operation of which it is necessary to fulfill such functions as coordination, monitoring and regulation.

In a living organism two processes are in a dialectical interaction:

- stability (constancy) of homeostasis in a given time;
- variation (deviation) of homeostasis over time.

Harmonious development of the body is in the interaction of these two processes (functions) of homeostasis. At the same time, in process of a living organism functioning, a corridor variation of its constants (health index) is quite limited and is under the influence of these processes on the one hand - the constancy of homeostasis, and on the other - the deviation of homeostasis within certain admission, allowing processes to dominate the development process with conserving the consistency of constants in the admissibility of homeostasis constants.

Functioning of the body is a complex systemic process taking place at five levels of regulation of the body activities (Fig. 7).

***I. THE LEVEL of homeostatic regulation is incorporated in the genetic program of any cell in the genes of the nucleus. Each autonomous (blood) or tissue (cell bodies) cell has many adaptators - receptors that regulate the processes of cell nutrition and respiration, its protection, energy supply, and reproduction, etc. These membrane receptors are so exquisitely specialized that perceive and respond only to adequate signals.***

The genetic program of the organism is performed very accurately: it was not by chance that from the Precambrian period (the period of the origin of life on Earth), the salt concentration in the extracellular fluid remained stable and similar to the salt concentration in the oceans, where the cell structure originated in the process of phylogeny.

***II. THE LEVEL of homeostasis regulation, supercellular, is created by hormones of endocrine glands, which coming into blood circulation, influence the activity of sensitive cells by a specific receptor. Parathyroid glands control the salt concentration of phosphorus and calcium, sodium and potassium and are regulated by the adrenal glands. These features do not change over a lifetime. Activities of other endocrine glands have a more free regime. But there are certain endocrine glands, coordinating the activities of all others. It is the pituitary gland that acts as a remote control.***

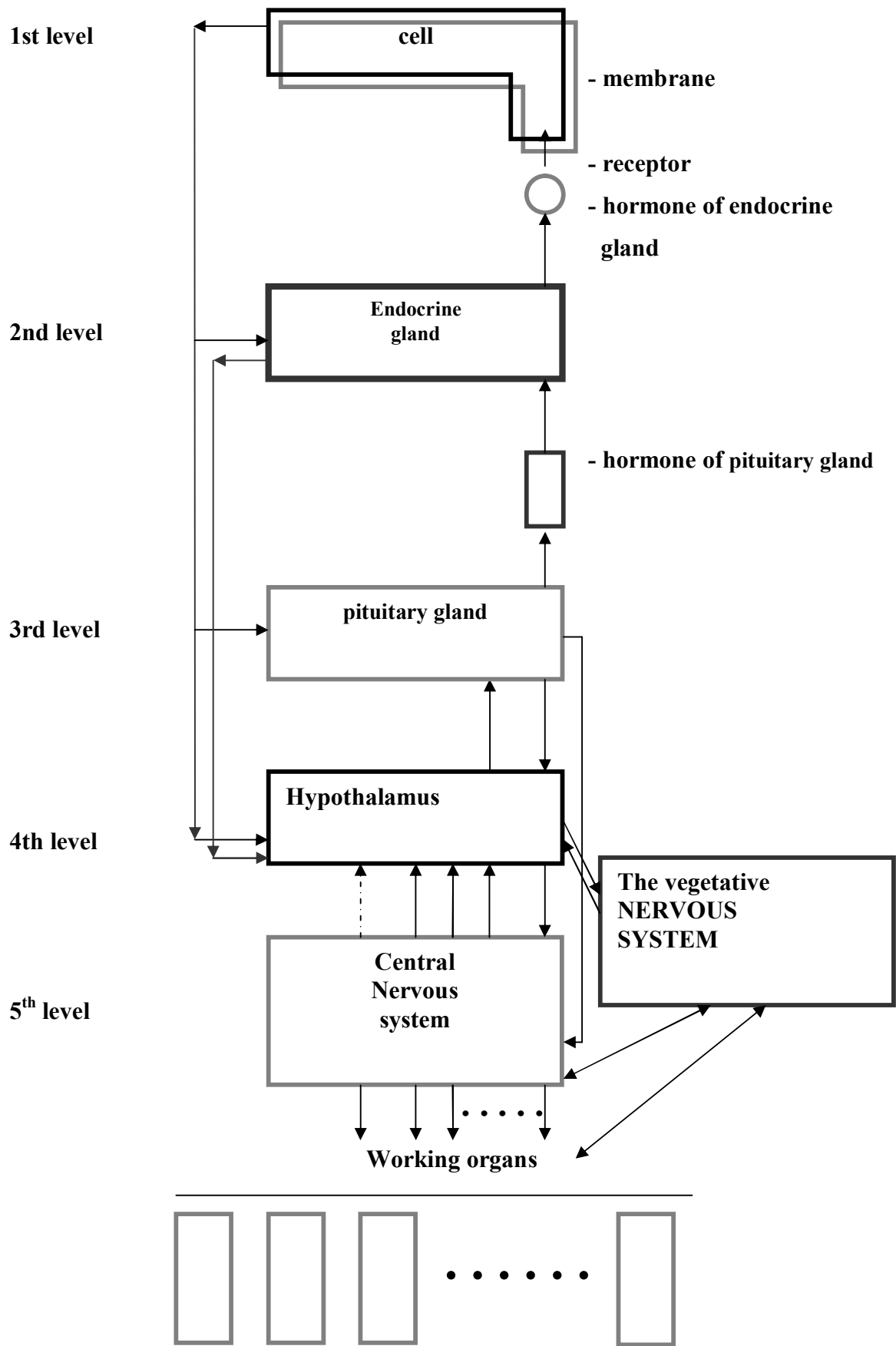


Figure 7. The scheme of multilevel regulation of the body function (by V.M. Dilmanov)

It is located at the back of the skull on its own bone bed - Turkish saddle. Such a deep and secure location indicates the special importance of the endocrine glands. Pituitary hormones form endocrine tracks: pituitary - adrenal gland, pituitary - pancreas, etc., thus regulating the activity of all endocrine glands.

**III. THE LEVEL OF HOMEOSTASIS REGULATION** is fulfilled by the pituitary gland. However, the nature of its interaction with the body components and its location make it blind to the organs of sense, and to the infinitely various external effects.

**IV. THE LEVEL OF HOMEOSTASIS REGULATION** is fulfilled by hypothalamus, which is an intermediary between these processes, and thus, is a brain structure, sometimes called the second brain. Originating in the phylogeny before the central nervous system, the hypothalamus combines the structure and function of both the nervous system and the endocrine glands. The structure of the hypothalamus is typical nerve cells with their processes - neurons, which network extends to all parts of the nervous system.

The network, on the one hand allows to receive and manage information from any part of the body, including the organs of sense. On the other hand, the hypothalamus is a functionally typical endocrine gland that forms and secretes hormones.

As a hybrid of the nervous and endocrine components of the body, the hypothalamus filters and transforms high-speed signals of the environment into slowly moving reaction of to the endocrine glands appropriate to this information and understandable to the body. The pituitary gland does not duplicate the hypothalamus function, but it creates the optimal conditions for its activity.

**V. THE LEVEL OF HOMEOSTASIS REGULATION** is the central nervous system where the organs of sense transform the signals of the environment into the signals for the brain, and these in turn – into the signals for the hypothalamus.

The pineal is a special endocrine gland, also located in the brain, changes the sensitivity (and the quality of response, respectively) of the hypothalamus to the hormones of other endocrine glands. The brain signals, transformed in the hypothalamus according to feedback, are filtered and pass to the working organs in the form of special hypothalamic messages.

In the 60s of the last century, numerous scientific studies confirmed that the hypothalamus is the major and the most important coordinator and regulator of the body functions and, above all, of the activities operating without the participation of consciousness and will.

Regulatory mechanism that specifies the functions of the central nervous system (mind, will, character, intelligence, etc.) and the hypothalamus (unconscious and automatic functions) is a flexible adaptation mechanism that protects the body against overloads.

Such processes as growth and development, reproduction, the thyroid gland (pituitary TSH), adrenal (corticotropin), breast (prolactins) functions are coordinated at the level of the hypothalamus - pituitary, bypassing the CNS.

The hypothalamus with the reticular formation of the brain controls centers of sleeping, emotions, heat production and thermoregulation, heart rate and vascular tone, fluid balance, automatic activity of the gastrointestinal tract, and in the autonomic centers - arterial and venous pressure, respiration, trophic, and lymph flow. Thus, the hypothalamus is the supreme organ of defense, adaptation and consistency of homeostasis.

However, consistency in any environment hinders its development. So there is a dialectical contradiction between the need for stability of homeostasis in a very narrow corridor of constants and life changes and deviations, which are a source of development.

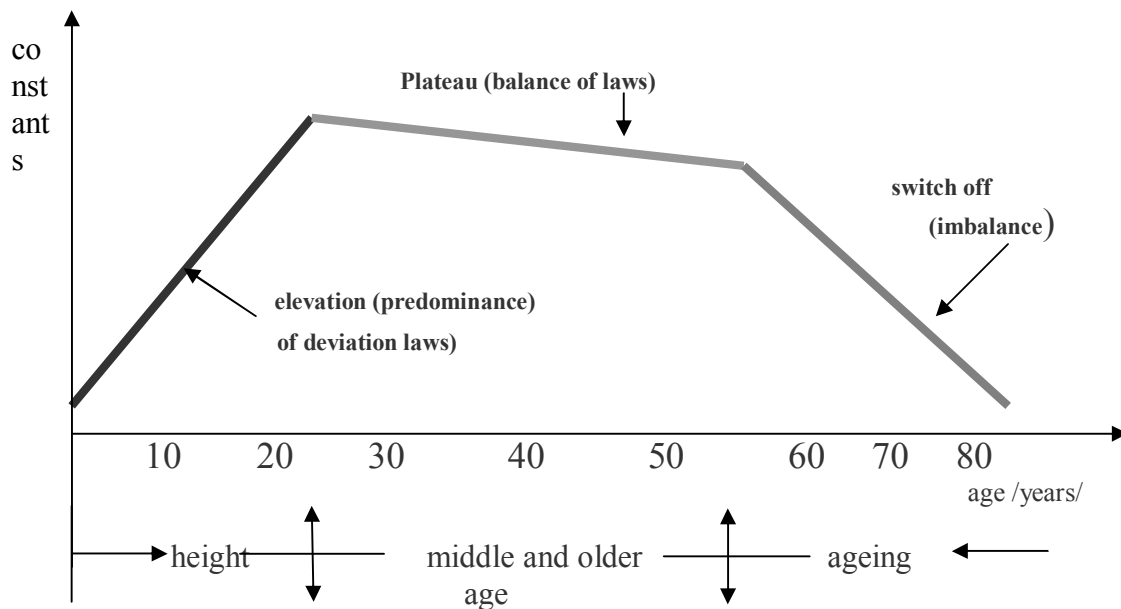
The pattern of necessary deviations of homeostasis needed for the development of functioning environment is a dialectical process of the existence and development of a living biological system, the human body, which is realized in the presence of 3 core properties of the body:

1. Metabolism with consumption of air, water and food that give energy to support the structure and functions of the various organs and the whole body.
2. Ability to adapt to environmental habitat.
3. Reproductive capacity, which ensures the safety of the species.

All these features and functions of the body are provided by the hypothalamus, which aims to implement the process of homeostasis stability, as the basis of existence, and the realization of process homeostasis deviations, as the basis of development. Indeed, the hypothalamus is a miracle of nature and it is difficult to imagine that this complex and multifunctional mechanism is just a simple product of evolution.

During the development process all the above-mentioned characteristics of the body are changing - energy production and consumption increases, reproductive capacity increased, adaptive capacity grows, reaching a maximum by the age of 20-25.

Whatever the constants characterizing the specified pattern are being analyzed, their dynamics universally fits the following graphical model, such as the one characterizing the dynamics of reproductive function of males and females (Fig. 8).



**Figure 8. Dynamics of reproductive functions**

At a certain stage of organism development, resulting from internal and external processes (especially stress), there arises a pressure of adaptive components of the body. To avoid their overloading, a program is genetically incorporated to reduce the sensitivity of the hypothalamus to the signals of the internal and external environment.

This process is always a two-stage one for any part of the body: first, functional and organic growth, increasing power and strength (e.g. age myocardial hypertrophy) and then overloading and reduced functional and organic capacities of the individual constituents of the body and a complete shut-down (e.g., reproduction).

This universal process of aging, fading, off, shutting down, which is always and for any part of the body is realized through the lack of harmony, balance, deregulation, the disruption of the dynamic relations in processes of stability and rejection of homeostasis.

Both for every species and for every individual, there is a Big biological clock, which speed, course and duration of individual functioning is determined by the balance of two main components of homeostasis process, ensuring coordination, control and regulation of the body components.

Thus, the cause of natural death of living organisms (this pattern is universal for all species) is the loss of coordination, monitoring and regulation of life support.

Given that any disease is a deviation of adaptation processes, diseases of the aging organism occur in two stages: through strengthening and increase of the functions and structure to further weakening and decline.

It is here, at the border of the development and aging, where an endless source of optimism and activity of curative and preventive medicine is seen, the ability to slowing down of the individual Big biological clock is found, and if not the program immortality, but at least, the implementation of individual, genetically determined program of longevity is expected.

Currently, this program is fulfilled very rarely, because of the onset of an advanced period of life support deregulation process: stability and homeostasis deviation. Deep study of the processes of life support makes a storehouse of knowledge and discovery of causes of pathogenesis and individual dynamics of disease of regulation and on this basis, provision of preventive and curative therapy, which is etiologically based, reliable and friendly.

However, the current strategy of disease treatment, including the regulation of aging illnesses, is not always consistent with the above two processes of homeostasis.

Treatment for the most part is symptomatic, does not consider the chain of changes occurring in the body of an individual due to the imbalance of coordination functions through the use of synthetic drugs, which present three quarters of medical therapies, which composition is not adequate to the human nature.

The enzymes, hormones and other biologically active substances developed as a result of millennial human species phylogeny serve to assimilate their corresponding products from food, water and air. In the long history of phylogeny there is no signal from new, daily increasing in number synthetic compounds, and therefore, there is no means for the body to assimilate them.

Moreover, the epidemic of drug diseases is spreading and the widespread increase of the number of nosological and chronic diseases suggests that this treatment strategy itself is flawed: saturating the body by an increasing number of synthetic compounds, we roughly change constants of its existence.

Could this be the reason of a deep crisis of modern medicine, when more and more sophisticated techniques and methods of treatment not only promote healing and longevity of mankind, but also create conditions for the development of ever more dangerous diseases, to which mankind is powerless.

The way out of this deadlock is obvious and it goes towards a better understanding of the processes of life support and homeostasis of the body that are in dialectical interaction with the environment and under the influence of the laws of universal development.

Probably, only from this position we should consider the strategy of treatment of diseases and tactics of individual treatment. It is completely necessary to take into account in which individual period the person is - a period of growth and development and the prevalence of abnormalities or period of balance and the prevalence of homeostasis stability or period of deregulation, shutting down, aging.

In this regard, there are no and cannot be rigid treatment schemes of disease groups, because even for a single nosological entity - there should always be an individual treatment plan taking into account cooperation rather than counteraction against dual process of homeostasis.

In this context, it is reasonable the use the dynamic treatment matrix, medical rehabilitation and prevention of disease (Table 4), a kind of mobile, easily varying therapy system, which, taking into account the individual characteristics of age, and the patient's disease include the necessary tools and techniques, harmonizing individual homeostasis constants..

**When applying medical methods specified in the dynamic matrix it is preferable to use means of natural numbers, for which a person developed (during phylogeny and ontogeny) the ingredients and there are tools for assimilation, not rejection of therapeutic drugs.**

The number of medicines should be always, especially with long-term treatment, minimal, otherwise they will unpredictably slow down or change the paradoxical outcome of treatment. Polypragmacy becomes an increasingly widespread phenomenon and its long-term results are also unpredictable.

Therefore it is reasonable to follow the tactics of the wise Chinese doctors: not rejecting the possibility of allopathic medicine, they prefer the use of chemical drugs only in acute life-threatening situations, and only for a short period (2-5 days) and long-term and chronic diseases are treated by special kinds of natural products, food products, special treatment and physical culture complexes, the traditional means of Chinese physical therapy - acupuncture, moxibustion, massage.

The way out from the current crisis of the therapeutic medicine lays in the integration of different methods and remedies, to the use of potent synthetic allopathic medicines only in extreme cases and for recurrent chronic conditions, but for a short time; and the prolonged use of the homeopathy and naturopathy agents, which are adequate to human body.

The best permanent or lifelong medication for chronic-recurrent and lifelong disease (cardiovascular, endocrine, exchange, etc.) is the use of modern homeopathy, with its safe, not causing complications and effective multi-component homeopathic remedies. Such treatment is not only highly effective and available to any age and social status, but also is used in account of, not despite, the action of the dual homeostasis process.

Proposed by specialists of JSC "Holding" EDAS " and used in the out-patients' units and inpatient centers scheme of integrative medicine, allow to realize in practice the dual approach to therapy recommended by Hippocrates and to achieve high effectiveness of therapy, while reducing treatment duration and increasing safety.

Therapy program is designed for an adult who is in a period of "plateau" (middle and mature age), i.e. during balancing and harmonious balance of the process of stability and deviation of homeostasis (Fig. 8).



If the patient is in a period of dominance of homeostasis deviations process due to the age or other reasons, and even more, in a period of imbalance and homeostasis deregulation, then, depending on the level of the corresponding constants, there should be correction of the proposed schemes of therapy.

The dynamic matrix allows any treatment option: monoregime therapy according to the standards of medical care; monotherapy by only homeopathic complexes, integrative therapy with the use of strong allopathic drugs at the beginning of treatment, with a gradual reduction of daily dosage and course and the transition to the optimal combination of allopathic and homeopathic treatment (Table 4).

At the stage treating the acute or worsening chronic diseases - the stage of direct struggle with symptoms - in addition to standard drugs in the program of integrative courses we should involve complex homeopathic remedies. They include specific medications (pain relievers, anti-inflammatory, anti-spasmodic, herbal antibiotics, etc.), but at the same time detoxifying agents, improving drainage and anti-toxic functions of the body, as well as anti-stress drugs for elimination of symptoms of stress, which inevitably arises with the disease or is the major cause of the disease.

A particular advantage of this method is the possibility of simultaneous (not sequential as in allopathic treatment) detoxification, anti-stress and specific therapy. There is no controversy and complicating treatment polypragmacy: it has been established that for adopting each of homeopathic drugs the cell membranes have their own, very specific receptors and no mixing of wave (vibrational) characteristics of homeopathic components in the body occurs.

Usually the treatment of acute conditions is carried out within 3-4 weeks. When the acute symptoms disappear, the next stage of therapy starts, which is medical rehabilitation.

In accordance with the recommendations of Professor Y.M. Levin, in this period, as at stage I (acute treatment), if necessary, the endolymphatic treatment should be continued - stimulation of lymphatic drainage or slowing down, depending on the individual characteristics of the disease and the patient's constitution.

Proposed by YM Levin the levinasan, pektsikom and other herbal and synthetic drugs function essentially as sorbents, during their use the main chemical medicine may be neutralized, therefore endolymphatic treatment should be carried out in sequence (advanced or discreetly) to the main chemical and other basic drugs.

Table 4

**Basic structure of the dynamic matrix of treatment,  
medical rehabilitation and disease prevention**

stages	treatment			rehabilitation			prevention	
	<i>allopathic</i>	<i>homeopathic</i>		<i>allopathic</i>	<i>homeopathic</i>	<i>Drug-free</i>	<i>homeopathic</i>	<i>Dru- free</i>
methods	endolymphatic therapy	detoxification constitutional	antistress	symptomatic therapy	nosological complexes	Vitamin and mineral complexes	Lymphatic drainage, other drainage	Diet, table mineral water
	symptomatic therapy							

At the stage of rehabilitation the physician can select the best and most secure long-term - sometimes up to six months - treatment. As in the 1st period, it can only be the use of treatment with synthetic drugs, but with early endolymphatic scheme or monotherapy by homeopathic complexes.

In this period detoxification is usually not required if it was done at the 1st stage of treatment. In addition to the specific means of treatment, the treatment course should include agents that affect metabolic processes, harmonizing homeostasis according to the age, stage of individual development and the status of the individual components of the life-supporting body, which always require correction of the level of constants. It is here where the basis of a balanced homeostasis is built in.

Besides homeopathic remedies the best regulators of this balance are microelement and vitamin complexes, and certain food additives. At this stage, the role of drug-free forms of treatment is important, which are a balanced diet, specially selected medical and physical fitness programs, physical therapy methods and other methods, including massage, chiropractic, acupuncture, etc..

Consistent management of a patient with chronic disorders will require stage III - harmonization of the body on the basis of preventive activities. In this case we are talking about secondary prevention, i.e. prevention of relapse of chronic disease, however, these same measures are used in primary (the risk of occurring) prevention activities.

In this period of stage III, the implementation of integrative schemes when no symptoms or they are insignificant, there is no need for urgent action, and therefore there is no need for synthetic antispasmodic, anti-inflammatory and other allopathic drugs. It was during this period, with the weak rare manifestations of the underlying disease, it is possible to prescribe specific homeopathic prophylactic dosages (1/2 - 2/3 of the daily dose), and metabolic complexes in the form of dietary supplements containing vitamins, minerals, adaptogens.

In this period it is recommended to repeat the detoxification by 2-4-week courses 3-4 times a year, using the constitutional homeopathic complexes of lymphatic drainage or hepatoprotective nature. At this stage, drug-free methods also suitable, such as diet, exercise, physiotherapy, recreation, health resorts, spa treatments, etc.

Analysis of the effectiveness of integrative therapeutic regimens developed in accordance with the dynamic matrix, has been conducted and continues to be carried out by specialists of "EDAS". Studies are performed by an open comparative method using a random sample and the formation of 3 groups of observations. Thus the following parameters are analyzed: pathogenesis, particular individual course, clinical characteristics, the dynamics of subjective (pain, limitation of movement, etc.) and objective (blood counts, urinalysis, general health, etc.) criteria.

During on-week observation the dynamics of the resolution of acute symptoms and the main process, tolerance and complications of treatment, its long-term results are studied. Each such observation is performed for 4-6 weeks, followed by a six-month control in groups of 20-30 people, identical in age, sex and clinical characteristics.

Statistical evaluation of 10-14 parameters showed that the timing of the normalization of the parameters in groups of homeopathic treatment reduced by 2 - 3 days compared to the control, and the term of relief of symptoms of acute exacerbation is reduced compared with the control by 3 to 5 days.

Comparison of the effectiveness of homeopathic monotherapy with integrative program (allopathy + homeopathy) shows a statistically significant superiority of the latter.

The positive dynamics of specific and general (fatigue, decreased performance, anxiety, depression, sleep disorders, etc.) health parameters during the period of observation allows either to cancel, or reduce 2-3 times the dose of allopathic drugs without affecting the duration and success of therapy while reducing the risk of complications.

This is especially important with the use of toxic, synthetic hormones and antibiotics, for example, in the treatment with the use of L-thyroxine, corticosteroids, broad-spectrum antibiotics, NPVP. Thus, non-specific anti-inflammatory drugs, which are widely used for hypertension, coronary artery disease, atherosclerosis, arthritis and arthrosis, recently have come up to the first place in the number and severity of medical complications.

Several studies used the drug scheme with smooth transfer of patients with standard treatment to homeopathic therapy in the final stage of treatment or in recovery after relapse of chronic disease. This proved to be especially effective for gastric ulcer and 12 duodenal ulcer, chronic - especially hypoacid - gastritis and gastroduodenitis, hypothyroidism, diabetes mellitus type II, chronic colitis..

One of the objective criteria for assessing the compatibility of allopathic and homeopathic remedies is a special test. This study is a mandatory in the center of integrative medicine of the company "EDAS", especially during the first administration of these drugs.

These studies are carried out at an outpatient consultation by a modified method of electrodiagnostic apparatus "YUPRANA-EDAS-test" (author – G.A. Yusupov) and allows not only the individual selection of compatible products, but also to control the dynamics of the patient's sensitivity to the used drugs.

Long-term observations of therapy with the use of the proposed integrative schemes show their good tolerability and safety, accelerating the onset of remission.

The study of the body constants suggests the conclusion that integrative (cooperative) regimens of treatment and rehabilitation restore homeostasis, result in harmonious relationship of age-based indicators of stability and homeostasis deviations; they are adequate to the nature of the human body, as well as contribute to the normalization of regulatory activities and coordinate homeostasis components of the body from the level of the cellular elements to the level of neuro-psychological component..

***That whole regulating effect of homeopathic complexes is crucial in the implementation of the schemes of integrative therapies in accordance with the dynamic matrix of treatment, medical rehabilitation and prevention of diseases***

## CHAPTER III

# ENDOLYMPHATIC THERAPY - A COMPONENT OF INTEGRATIVE MEDICINE

The present stage of human development is marked by significant progress in science and practice of medicine, but we are still looking for ways to implement the genetic program of longevity.

Various elixirs of life, immortality, the latest electronic and laser technology, are periodically declared to be a panacea, but cannot help to overcome the barrier of life expectancy of 70-80 years.

With logic inevitability since the age of 50 our contemporaries develop destructive changes in organs and tissues and, despite the genetic program, designed for 120-140 years, single persons live up to a century years old.

**What prevents the program of genetically planned longevity to be fulfilled and why is the number of clinical entities everywhere and chronic diseases steadily growing?**

Neither living standards nor the funds invested in the development of medicine, in fact, change the above trends. Apparently, within the existence of contemporary population there appear complex of internal and external factors, which could affect the quality of life and shorten the lifetime.

The present stage of human development is characterized by the following most important factors:

**First:** aggressive environment – exorbitant concentrations of toxins in the air and water, chemically altered food and medicines inadequate to the human nature, the assimilation of which is consistently causing stress, fatigue and metabolic degradation of structures and organs.

The leading factors here are oxides – the substances containing hyperactive oxygen molecules that damage cell membranes and therefore present one of the most important elements of the ageing destruction and cancer pathology.

Free radicals are necessary participants of metabolic processes. They are produced in excess in the body and come into it in the presence of toxins in the environment, food, medicines and other essential components of life.

**Second:** The detrimental effect on the structure of the genetic apparatus of man, animals and plants is irradiation of various kinds: radiation, ultra-and infrasound, electromagnetic, and others that are so characteristic of modern civilization, and of particular relevance in big cities.

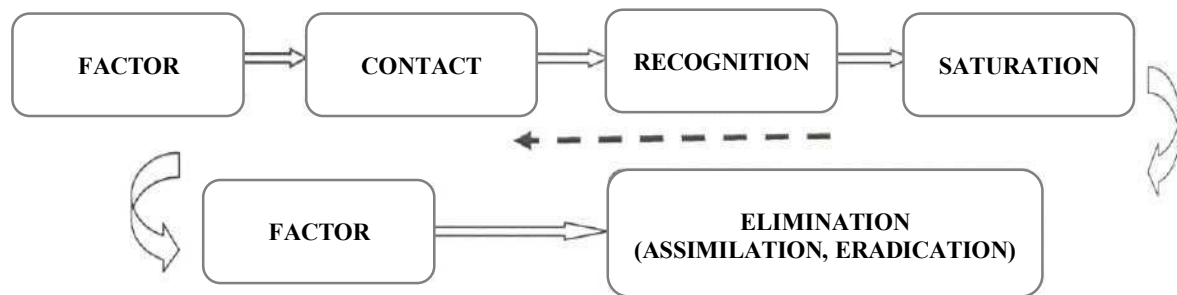
In this case, the introduction of new forms of communication inevitably increases the number of these dangerous radiation effects and acts directly, bypassing protective barriers, on the structure of the cerebral cortex. There is no real mass protection against exposure to radiation.

**Third:** acute, and especially chronic stress situations, which are the constant attribute of modern life in a large gathering of people such as cities and large towns. In itself, the restriction of living space such as in transport, in the densely populated high-rise buildings, on the streets causes the state of chronic fatigue, fatigue, and exhausts immune and other protective systems.

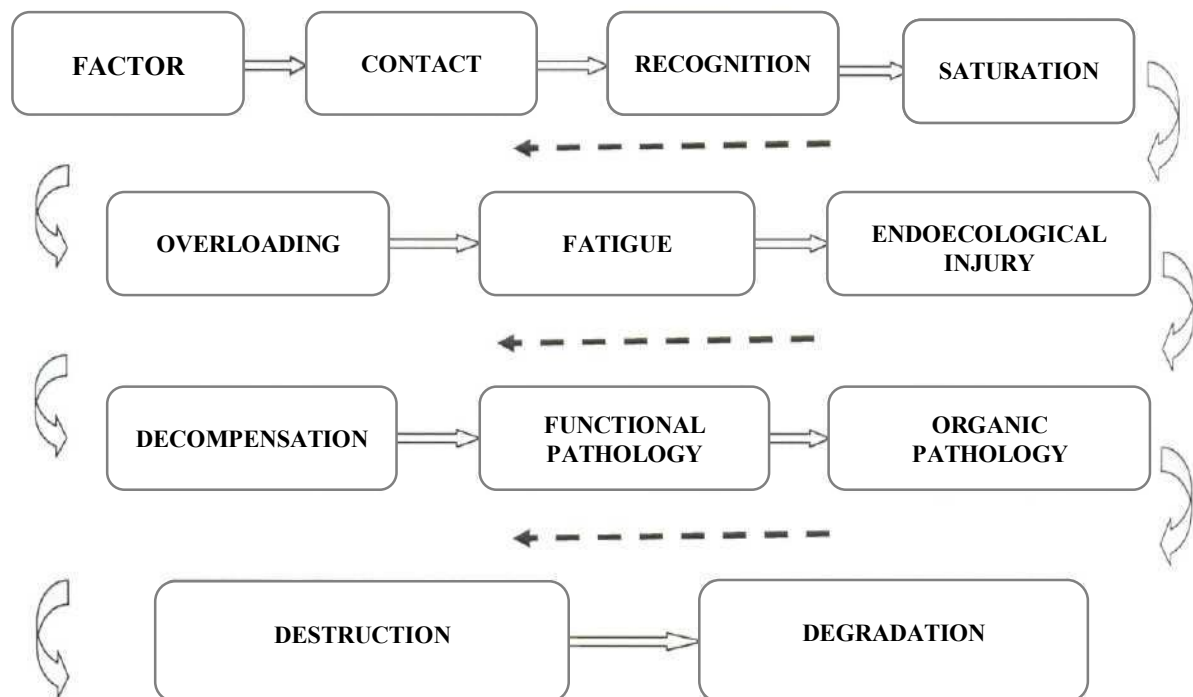
**Fourth:** in Russia, with its low life standard of the general population, significant social, economic and demographic events of recent decades, chronic fatigue, including its psychological aspects has become universal. Dissatisfaction with the present, uncertainty about the future, a sense of insecurity, inadequacy, worthlessness and loneliness - especially characteristic for generations of middle and advanced age - break down psychological defenses, have an unprecedented number of psychosomatic illnesses.

Unprecedented in the history contamination of external and internal environment in the second half of the XX century due to the significant number of new toxins, detrimental effect on human health. This led to a change in the ratio of acute and chronic diseases: in the early XX century, it was 70:30 at the beginning of XXI century - 30:70.

So far the exceeding safe levels of environmental concentration of bacteria, viruses, chemicals and radiation factors led to appearing an "endoecological the pool", according to Academician V.P. Kaznacheev. Physiological process of environmental adaptation is as follows (Fig. 9).



то патологический процесс эндоэкологического омута выглядит следующим образом:



**Figure 9. The process of environmental adaptation**

In the internal environment of the human body, animals and plants the concentration of toxic substances accumulates to such extent, which breaks the barrier ("Customs") of the blood-brain structures, vessels and interstitial sector protection from the pressure of the environment. A vicious type of metabolism occurs and expands further. The emergence and consolidation of the symptoms of endoecological injury in the body leads to the next generations in the accumulation of such symptoms according to the type of genetic defect. This forms a new, lower levels of a protective barrier to the emergence of fatigue and the subsequent development of diseases of the vital processes of pregnancy, growth and maturation, and aging.

There fundamentally changes the rating, the pathogenesis and prognosis of the most pressing diseases. In the internal environment (regardless of age) there impair relationships and interaction of bacterial and viral associations of skin, lung, intestine, urinary tract infections.

Protective factors under the influence of toxic overloads fundamentally change the nature of their activities and become factors of autoaggression instead of means of protection and enforcement. Hence, there is the rise of autoimmune, metabolic, neoplastic diseases. Due to destabilization of controlling the immune, endocrine, and other protective systems, the body loses its ability to retain and assimilate vital trace elements, vitamins, hormones, it leads to the genetic default, according to the terminology of V.P. Kaznacheeva.

"Environmental terrorism", regardless of material security, social situation, individual living standards changes the person's physical, social and public health, with growing incidence and birth of genetically defective offspring, and increased mortality.

**Many well-established basic schemes and methods of treatment of chronic and acute illnesses are either ineffective, or , most dangerously, give perverted, non-programmable outcome of the therapy.**

The levels of medical illnesses are rapidly increasing. The intelligence, ability to work, the reproductive potential of the population suffer greatly. The structure of morbidity is changing and requires flexible change of health care system management.

Resolution of endoecological problems of modern people is hampered by the fact that the accumulation of toxic substances in the body is in a difficult sector to influence the body as it is located in the intercellular space and the lymphatic system, accumulating 83 to 86% of the toxins.

It is well known that basic metabolic processes take place in the extravascular - interstitial and lymphatic bed, there are accumulated and are spread by extravascular humoral transport throughout the body the most important metabolites and toxicants.

Practice has shown that the real chance to keep health is to make an effect on a system of extravascular humoral transport such as interstitium and the lymphatic system, anatomically unrelated sectors of the body.

Disorders of the sector are characterized by the following abnormalities:

- Impairment (increase or decrease) of the income of tissue fluid into the interstitium and (or) out of it in the lymph channels.
- Change (decrease, increase) of the motor activity of lymphatic vessels.
- Limiting or eliminating of passage of lymphatic vessels.
- Changing the rheology and viscosity of tissue fluid and lymph.
- Reducing the factors stimulating lymph transport (contractile function of muscles, blood vessels, diaphragm, intestinal peristalsis, etc.).

The pathology of these components of the body can be general, regional or inadequate to the needs:

1. **General** breakdown of lymph formation and extravascular humoral transport (EGT) occurs in severe poisoning, intoxication, acute or chronic diseases, blood loss, blood transfusions. These factors inhibit or stimulate lymphatic drainage.

2. **Regional** EGT destructions occur in inflammation, thrombosis, necrosis, heart attack.

3. **Inadequacy** to the needs takes place with the necessity to enhance or reduce the lymphatic drainage of the affected organ, and the body cannot not satisfy these requirements.

EGT control allows sanitizing the internal environment and to normalize the metabolism. Created by Y.M. Levin and successfully implemented in a variety of medical and recreational facilities and health institutions the detoxification system allows to sanitize cell habitat at the cell-organism level.

"Correction of disorders occurring in the lymphatic system in various diseases, optimization of its inadequate functions are crucial for the general therapy", says U.F. Isaev. At present, there have been developed the ways of influencing the lymphatic drainage using a variety of synthetic drugs, herbal remedies, homeopathy and physiotherapy.

Endolymphatic therapy solves the following tasks:

- Creates in lymphatic system and tissue fluids a higher, unreachable by conventional treatment, concentration of drugs.
- Improves concentration and prolongs the action of drugs in the tissues of pathological abnormality.
- Reduces toxicity of the drugs, and their one-time and course dose.
- Enhances anesthesia.
- Increases the passage of the drugs through the blood-brain barrier.

It was demonstrated that stimulation of lymphatic drainage helped to remove metabolites and exogenous toxins from the tissue. At the same time reduction of the lymphatic drainage inhibits the flow and spread with the lymph of cancer cells and pathogens through the body, so lymph blockade is successfully used to reduce and prevent metastasis.

Lymphotropic injection of immunomodulators gives a more pronounced than with other routes of administration, the immunostimulatory effect and stimulates cellular and humoral immunity.

Stimulation of intestinal lymphatic drainage optimizes the process of lymphenterosorption at

acute exogenous and endogenic toxemias.

Impact on the EGT is made by lymph modifying, drainage medicines of chemical pharmaceutical profile (Detralex, Trental, Meksidol, Phlebodia etc.), medicinal herbs, homeopathy and physiotherapy impact.

Given the nature of homeopathic multicomponent complexes, specific and non-specific effect of homeopathic drugs, the effects of homeopathic remedies to restore homeostasis and harmonization processes of life support, the absence of any adverse allergic or toxic effects, the endolymphatic therapy with multi homeopathic remedies in combination with microelement-vitamin formulations is a very promising approach.

Convenient dosage drug forms (drops, granules, pellets, etc.), a harmonious combination of individual complexes of the sorbent, drainage, lymph stimulating and immunomodulatory effects, makes it necessary to use the atraumatic homeopathic complexes "EDAS" as means of endoecological effects in acute and chronic diseases in an out-patients', hospital, nursing home.

## Chapter IV.

### **SCHEMES OF INTEGRATIVE (COMBINED) THERAPY: prevention, treatment, medical rehabilitation**

Relevance and possibility to develop integrative medicine in the modern scientific and evidence-based complex health system of a harmonious combination of the achievements of conventional (official) and complementary (alternative) medicine are becoming more and more evident in the twenty-first century.

The human body in interaction with the environment is an integrated system that is characterized by mutual dependence, interaction and mutual development of its constituents. Consideration of the components of the organism, as a combination of its internal systems from the standpoint of the dialectic, has no ground.

Integrative medicine is the objective vector of development of modern medicine and it is still making initial steps to identify and apply schemes (programs) of combination therapy using both methods and means of the conventional and complementary medicine.

The main purpose of integrative medicine is forecasting and complex influence on the causal processes in the body in order to maintain a harmonious state of homeostasis and, thus, to ensure the transition from the "medical illness" to "medical health", which is the most urgent task of the present stage of development of health services.

Integrative medicine is medicine, which aims to preserve the health, the prevention (prophylaxis) of diseases by harmonizing the body's biological processes, with simultaneous action on the causes and consequences of deviation of homeostasis, the practice of medicine with no disease, and the patient, taking into account its specific features and environmental conditions where they live.

Changing the vector of health care development from the conventional to complementary medicine is described by the following statistics: in the UK, the Netherlands, Belgium and Germany, 40-60% of the population use the services of complementary medicine, at least 30% of general practitioners refer patients for treatment by means of this medicine.

It is significant that the expenditures of the U.S. population on alternative medicine increased during 1990-1997 from 13 billion dollars to 38 billion dollars. High patient satisfaction (76-82%) with the quality of medical care of physicians who use methods and tools of complementary medicine, is another proof of the effectiveness of the methods and agents.

These statistics are proof of strengthening the position of complementary medicine, but at the same time characterize the crisis in the conventional medicine. It is not the refuse from one direction and move to another area of medicine, this is the need for their integration (combination).

Homeopathy occupies a special place in modern complementary medicine, which is a method used for over 200 years and is related to alternative medicine with a developed system of evidence.

Homeopathy is a method of treatment, rehabilitation and prevention of diseases by subsmall doses of dynamized drugs on the basis of similarity, it has a number of advantages over the methods and means of conventional medicine, such as:

- effect on the level of the whole organism;
- pronounced therapeutic and prophylactic efficacy of drugs at low cost;
- lack of substrate-toxic and allergenic properties and, accordingly, the side effects and complications;
- Lack of individual intolerance and addiction;
- Suitable for both children and adults;
- existence of clear rules for reception and ease of use;
- possibility of a significant reduction in the number of laboratory and instrumental studies and patient dose reduction (50% or more) of strong allopathic drugs when combined with homeopathic complexes.

Over the last decades there has been forming the basic foundation of integrative medicine, as the effective direction of practical medicine, combining the generally accepted methods of diagnosis and treatment with the achievements of alternative medicine. The concept of alternative medicine is gaining more and more approval in developed countries.

It should be noted that integrative medicine is not synonymous with complementary medicine. Medical science at the present stage of development refers methods and means of complementary medicine to those complementary to the conventional medicine.

Integration (means "equal inclusion in the community") methods and means of conventional and complementary system of medicine is reasonable and realistic way to overcome the crisis of the existing health care system.

This section of the handbook is a basic foundation for further development of methods and tools in achieving the optimal results in the treatment of various diseases.

It is important to note that several standards of medical care without their systematic improvement and periodic reapproval with the account of the latest advances in medical science and practice, are gradually becoming old fashioned with the introduction of new systems of diagnosis and treatment, as they do not come in course with the processes of the development of medical science and practice.

In the proposed schemes of integrative (combined) therapy, which have repeatedly been tested in clinical practice, we used only approved standards of medical care that do not cover all mentioned schemes of therapy. Therefore, allopathic component of these schemes of combination therapy should be formed on the basis of the practical experience of experts and may be in the process of continuous improvement, including the use of new allopathic drugs.

In schemes of integrative therapy the allopathic component may undergo some changes with the new standards of medical care, using new methods and allopathic treatment, but it is recommended to keep the other components of the integrative therapy.

The wide range of applications and experience in medical practice of homeopathic complexes "EDAS" is the basis of homeopathic part in schemes of integrative therapy. Obviously, other similar multi-component homeopathic drugs in the presence of relevant experience of their practical application can be used in the courses of the integrative therapy.

The proposed schemes (programs) of treatment, medical rehabilitation and prevention of diseases implement a dual approach to the treatment process (Hippocrates's principle of dual unity), where there harmoniously are integrated different mechanisms of action on the body of allopathic and multicomponent homeopathic medicine.

Numerous clinical studies conducted in 17 years by physicians of various specialties, confirmed the compatibility of homeopathic complexes "EDAS" with almost all pharmacotherapeutic agents.

The different mechanisms of action on the body of allopathic and homeopathic complexes "EDAS" not only support the action of individual treatment components, but also in integrative treatment schemes there occurs their tolerance and complementary to each other, which indicates principal possibility of combining homeopathic complexes with any other means.

In the development and clinical testing of integrative therapy schemes approved standards of medical care are accepted as the baseline.



The schemes (programs) of integrative therapy, medical rehabilitation and prevention of disease underwent additional peer review by qualified physicians of various specialties in Moscow medical institutions.

Dynamic matrix of treatment, medical rehabilitation and prevention of diseases, on which basis schemes of integrative therapy are made up, is the methodological base for further optimization and improvement of its components, taking into account the achievements of medical science and practice. Dosages of homeopathic remedies in the schemes of integrative therapy do not depend on the age of patients and are determined only by the stage of the disease, and in allopathic treatment they are established by the physician with regard to age, severity and stage of the pathological process, which may differ from those in the schemes.

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